APPENDIX A: Sampling Data for Oil in the Gulf of Mexico and Santa Barbara Channel

Table A1. Collection sites for oil samples from the *DWH* oil spill, GOM seep, and Santa Barbara Channel oils (USGS), including sample type and date of collection.

Sample	Latitude	Longitude	Sample Type	Date of Collection
DWH-2 surface slick	28.7381	-88.3659	surface slick oil	8-May-10
DWH-3 surface slick	28.7381	-88.3659	surface slick oil	8-May-10
DWH subsurface	28.7381	-88.3659	subsurface riser oil	21-May-10
GOM Seep 1	28.5176	-89.0239	seep oil at sea floor	2002
GOM Seep 2	28.5176	-89.0239	seep oil at sea floor	2002
GOM Seep 3	28.5176	-89.0239	seep oil at sea floor	2002
GOM Seep 4	28.5176	-89.0239	seep oil at sea floor	2002
USGS 08-185	34.3350	-119.5530	produced oil	25-Jan-08
USGS 08-187	34.3350	-119.5530	produced oil	25-Jan-08
USGS 08-191	34.3516	-120.2802	produced oil	18-Jan-05
USGS 08-218	34.1823	-119.4194	produced oil	2-Apr-08
USGS 08-229	34.3376	-119.5424	produced oil	2-Apr-08
USGS 01-27b	34.4950	-120.7023	viscous oil	25-Jul-01
USGS 01-30b	34.4950	-120.7023	sludge/oil	25-Jul-01
USGS 05-348b	34.4198	-119.6037	seep oil at sea floor	8-Feb-05
USGS 10-04	33.5824	-118.1282	produced oil	21-Mar-08

APPENDIX B: Air Flow Calculations

Table B1: An Example Calculation for Air Flow Through the High Volume Air Sampler

Turtle Cove 2011
GFFs 138 (top) + 137(bottom) and PUF

	Green Manometer (inches)	Red Manometer (inches)
1	0	2.4
2	2.4	5
3	2.6	5.2
4	1.4	3.8
5	2.4	5
6	2.5	5.1
7	2.6	5.1
8	2.3	4.8

Green vs. Red equation:	y = 0.9251x-2.1844	
R^2:	0.9969	
Post-sampling red manometer:		42
Yields calculated green manometer:		1.70102

Qstd vs. Flow equation:	y = .1776X + 0.572
R^2:	0.9896
m:	0.1776
b:	0.572

Red Manometer (measured)	Green Manometer (calculated)	Flow Rate (m^3 min^{-1})	Run Duration (min)	**Sample Volume (m^3)**
4.2	1.70102	0.874101152	425	**371.4929896**

APPENDIX C: Carbon and Isotope Data

Table C1. Total Carbon and Total Nitrogen Measured in Lake and Rain Water Samples Collected July, 2010.

Sample	Total Carbon (mg/L)	Total Nitrogen (mg/L)	C/N ratio
Lake Okatibee Rep 1	7.29	0.32	26.8
Lake Okatibee Rep 2	6.37	0.26	29.1
Tropical Storm Bonnie Rep 1	3.53	0.57	7.24
Tropical Storm Bonnie Rep 2	3.15	0.59	6.20
Turtle Cove Rep 1	13.5	0.37	43.1
Turtle Cove Rep 2	14.5	0.39	43.6
Cross Lake	5.6	0.26	24.8
Cross Lake Rainwater DOC	64.0	50.1	1.49

Table C2. Carbon Isotope, DOC, and ^{14}C age for Rainwater Collected from *TS Bonnie*.

	DOC (μM)	$\delta^{13}C$ (‰)	$\Delta^{14}C$(‰)	^{14}C age (BP)
TS Bonnie Rainwater Rep 1	2180 ± 270	-25.7	-629 ± 6	7960 ± 130
TS Bonnie Rainwater Rep 2	1250 ± 300	-23.5	-695 ± 25	9530 ± 660

Table C3a. Total Organic Carbon, Carbon Isotope and TSP Values Measured from GFF atmospheric samples, 2010 and 2011.

Sample ID	Sampling Site	TSP (μg m^{-3})	$\delta^{13}C$ (‰)	Amount C (μg)	μg C m^{-3}
109-1-OC	EPA 2010 rep 1	1.81	-16.6	23.9	0.08
109-2-OC		1.81	-19.4	21.3	0.07
120-1-OC		1.24	-15.3	21.8	0.07
120-2-OC		1.24	-12.2	22.5	0.07
121-1-OC	DISL 2010	0.35	-11.0	21.1	0.07
121-2-OC		0.35	-10.0	18.5	0.06
125-1-OC		0.14	-9.43	33.9	0.11
125-3-OC		0.14	-10.2	28.6	0.10
123-1-OC	EPA 2010 rep 2	2.64	-26.1	21.1	0.08
123-2-OC		2.64	-22.0	23.0	0.09
124-1-OC		-	-13.8	19.6	0.07
124-2-OC		-	-15.0	17.5	0.06
126-1-OC	Turtle Cove 2010	0.62	-12.1	34.6	0.14
126-2-OC		0.62	-11.7	32.5	0.13
127-1-OC		-	-10.1	32.9	0.13
127-2-OC		-	-6.37	29.2	0.12
128-1-OC	Cross Lake 2010	0.70	-16.4	44.7	0.10
128-2-OC		0.70	-14.9	40.2	0.09
129-1-OC		0.61	-11.4	41.6	0.10
129-2-OC		0.61	-9.89	39.4	0.09
130-1-OC	Lake Okatibbee 2010	0.20	-12.6	34.4	0.07
130-2-OC		0.20	-15.1	35.8	0.07
131--1-OC		0.17	-10.1	34.9	0.07
131-2-OC		0.17	-8.92	32.0	0.06
132-1-OC	EPA 2011 rep 2	0.57	-8.36	19.8	0.15
132-2-OC		0.57	-8.70	16.9	0.12
133-1-OC		-	-13.4	23.4	0.17
133-2-OC		-	-13.0	20.8	0.15
134-1-OC	DISL 2011	0.60	-25.9	13.4	0.04
134-2-OC		0.60	-25.8	12.7	0.04
135-1-OC		0.59	-16.1	26.0	0.08
135-2-OC		0.59	-17.7	21.3	0.06
137-1-OC	Turtle Cove 2011	0.51	-9.38	19.6	0.05
137-2-OC		0.51	-11.4	18.5	0.05
138-1-OC		0.19	-18.6	21.3	0.06
138-2-OC		0.19	-16.8	24.3	0.07
139-1-OC	Cross Lake 2011	0.05	-13.3	17.6	0.02
139-2-OC		0.05	-11.9	20.2	0.02
140-1-OC		0.44	-19.4	27.7	0.03
140-2-OC		0.44	-20.8	27.3	0.03
141-1-OC	EPA 2011 rep 1	0.42	-19.3	5.92	0.02
141-2-OC		0.42	-17.9	5.45	0.02
142-1-OC		0.66	-20.0	5.82	0.02
142-2-OC		0.66	-19.0	4.90	0.01
142-3-OC		0.66	-20.3	4.79	0.01
142-4-OC		0.66	-20.01	5.28	0.02

Table C3b. Total Black Carbon and Carbon Isotope Values Measured from GFF atmospheric samples, 2010 and 2011.

Sample ID	Sampling Site	$\delta^{13}C$ (‰)	Amount C (µg)	µg C m^{-3}
109-3-BC	EPA 2010 rep 1	-8.91	11.5	0.04
109-4-BC		-10.3	12.4	0.04
120-3-BC		-11.2	14.0	0.04
120-4-BC		-11.0	11.3	0.04
121-3-BC	DISL 2010	-18.2	18.3	0.06
121-4-BC		-18.3	17.9	0.06
125-2-BC		-8.54	16.3	0.05
125-4-BC		-9.77	12.3	0.04
123-3-BC	EPA 2010 rep 2	-9.92	12.3	0.05
123-4-BC		-9.43	11.5	0.04
124-3-BC		-9.35	12.7	0.05
124-4-BC		-11.2	10.8	0.04
126-3-BC	Turtle Cove 2010	-9.16	14.6	0.06
126-4-BC		-9.51	15.3	0.06
127-3-BC		-8.13	13.8	0.06
127-4-BC		-7.88	14.9	0.06
128-3-BC	Cross Lake 2010	-9.61	15.6	0.04
128-4-BC		-10.1	13.5	0.03
129-3-BC		-9.35	14.7	0.03
129-4-BC		-9.05	15.6	0.04
130-3-BC	Lake Okatibbee 2010	-8.44	12.5	0.02
130-4-BC		-8.19	13.7	0.03
131-3-BC		-8.51	13.2	0.03
131-4-BC		-8.33	13.3	0.03
132-3-BC	EPA 2011 rep 2	-6.55	13.9	0.10
132-4-BC		-6.94	12.6	0.09
133-3-BC		-7.67	12.6	0.09
133-4-BC		-6.46	12.2	0.09
134-3-BC	DISL 2011	-25.1	12.9	0.04
134-4-BC		-25.3	12.3	0.04
135-3-BC		-7.69	11.9	0.04
135-4-BC		-8.39	12.5	0.04
137-3-BC	Turtle Cove 2011	-9.17	14.5	0.04
137-4-BC		-8.59	13.7	0.04
138-3-BC		-8.02	13.4	0.04
138-4-BC		-7.29	13.8	0.04
139-3-BC	Cross Lake 2011	-8.12	15.0	0.02
139-4-BC		-6.37	13.7	0.02
140-3-BC		-8.55	13.3	0.02
140-4-BC		-7.75	15.0	0.02
141-3-BC	EPA 2011 rep 1	-18.4	4.90	0.01
141-4-BC		-18.8	6.03	0.02

Table C4: Averaged aerosol carbon data for which:

TOC = BC + OC and $\delta^{13}C_{TOC}$*TOC = $\delta^{13}C_{BC}$*BC + $\delta^{13}C_{OC}$*OC

TOC	Sample Location	Avg $\delta^{13}C$	Stnd Dev Avg $\delta^{13}C$	Avg C (μg)	Stnd Dev Avg C (μg)	Avg μg C m^{-3} air	Stnd Dev μg C m^{-3} air
	EPA 2010 rep 1	-15.88	2.99	22.37	1.14	10.57	0.54
	EPA 2010 rep 2	-19.24	5.80	20.30	2.35	11.10	1.29
	DISL 2010	-10.15	0.64	25.56	7.04	12.67	3.49
	Turtle Cove 2010	-10.08	2.61	32.30	2.23	19.64	1.35
	Cross Lake 2010	-13.17	3.04	41.48	2.34	14.37	0.81
	Lake Okatibbee 2010	-11.69	2.73	34.29	1.63	10.07	0.48
	EPA 2011 rep 1	-19.05	0.90	5.36	0.46	2.27	0.20
	EPA 2011 rep 2	-10.86	2.70	20.22	2.72	22.13	2.98
	DISL 2011	-21.36	5.21	18.37	6.42	8.11	2.83
	Turtle Cove 2011	-14.02	4.36	20.94	2.54	8.34	1.01
	Cross Lake 2011	-16.36	4.39	23.20	5.06	4.18	0.91
BC	Sample Location	Avg $\delta^{13}C$	Stnd Dev Avg $\delta^{13}C$	Avg C (μg)	Stnd Dev Avg C (μg)	Avg μg C m^{-3} air	Stnd Dev μg C m^{-3} air
	EPA 2010 rep 1	-10.36	1.03	12.30	1.22	5.81	0.58
	EPA 2010 rep 2	-9.97	0.85	11.84	0.83	6.47	0.45
	DISL 2010	-13.69	5.26	16.20	2.72	8.03	1.35
	Turtle Cove 2010	-8.67	0.79	14.64	0.62	8.90	0.38
	Cross Lake 2010	-9.54	0.47	14.83	1.00	5.14	0.35
	Lake Okatibbee 2010	-8.37	0.14	13.16	0.46	3.87	0.14
	EPA 2011 rep 1	-18.61	0.29	5.47	0.80	2.31	0.34
	EPA 2011 rep 2	-6.90	0.55	12.84	0.76	14.06	0.83
	DISL 2011	-16.60	9.89	12.40	0.43	5.48	0.19
	Turtle Cove 2011	-8.27	0.80	13.85	0.44	5.51	0.18
	Cross Lake 2011	-7.70	0.94	14.21	0.87	2.56	0.16
OC	Sample Location	Avg $\delta^{13}C$	Stnd Dev Avg $\delta^{13}C$	Avg C (μg)	Stnd Dev Avg C (μg)	Avg μg C m^{-3} air	Stnd Dev μg C m^{-3} air
	EPA 2010rep 1	-22.64	3.30	10.07	0.08	4.76	0.04
	EPA 2010 rep 2	-32.20	11.28	8.47	1.52	4.63	0.83
	DISL 2010	-4.04	0.13	9.37	4.32	4.64	2.14
	Turtle Cove 2010	-11.24	2.62	17.66	1.61	10.74	0.98
	Cross Lake 2010	-15.19	3.69	26.64	1.34	9.23	0.47
	Lake Okatibbee 2010	-13.77	3.58	21.13	1.17	6.21	0.34
	EPA 2011 rep 1	3.37	10.37	-0.11	0.34	-0.04	0.14
	EPA 2011 rep 2	-17.74	6.38	7.38	1.97	8.07	2.15
	DISL 2011	-31.24	10.53	5.97	5.99	2.64	2.65
	Turtle Cove 2011	-25.26	10.60	7.10	2.09	2.83	0.83

Cross Lake 2011	-30.06	13.69	8.99	4.20	1.62	0.76

Table C5. Measurements of TSP, and Particulate OC and BC for GFFs of Rain and Lake Water Samples.

Sample ID	Sample Location	Sample Type	TSP (mg L^{-1})	$\delta^{13}C$ (‰)	Amount OC (µg)	Amount BC (µg)
CNC10-21	Turtle Cove 2010	lake water	0.458	-24.46		2.213
CNC10-22			0.379	-32.47	139.5	
CNC10-23			0.521	-31.77	92.46	
CNC10-24			0.480	-24.91		1.801
CNC10-25	Cross Lake 2010	lake water	1.978	-26.55	230.5	
CNC10-26			2.447	-26.37	254.8	
CNC10-27			2.338	-23.43		2.639
CNC10-30			2.327	-23.34		2.393
CNC10-32	Cross Lake 2010	rain water (pre-TS Bonnie)	2.578	-28.85	568.3	
CNC10-33			3.095	-28.77	537.5	
CNC10-34			6.350	-25.61		5.395
CNC10-35			3.421	-25.38		3.948
CNC10-36	Cross Lake 2010	rain water (post-TS Bonnie)	0.427	-27.60	119.4	
CNC10-37			0.507	-27.63	128.7	
CNC10-38			0.351	-24.89		1.955
CNC10-39			0.718	-24.94		1.950
CNC10-40	Lake Okatibbee 2010	lake water	5.451	-29.47	75.85	
CNC10-41			3.511	-28.92	91.37	
CNC10-42			3.033	-23.65		2.209
CNC10-43			3.159	-23.15		2.921
GOM11-1-OC	Turtle Cove 2011	lake water	1.850	-29.52	66.75	
GOM11-2-OC			1.304	-29.49	73.67	
GOM11-4-BC			2.260	-27.83		9.885
GOM11-3-BC			NQ	-29.47		10.15
GOM11-7-OC	Cross Lake 2011	lake water	7.500	-30.19	112.61	
GOM11-8-OC			13.125	-30.15	109.65	
GOM11-9-OC			14.150	-30.27	110.07	
GOM11-10-BC			14.450	-31.59		9.650
GOM11-11-BC			9.000	-31.26		10.42
GOM11-12-BC			9.750	-31.09		10.51

APPENDIX D: Oil PAH Data

Table D1. PAH concentrations in oil from the *Deepwater Horizon* oil spill, the Gulf of Mexico, and the Santa Barbara Channel, CA (µg g^{-1}).

PAH	*DWH*-2 surface	*DWH*-3 surface	*DWH* subsurface	GOM Seep 1	GOM Seep 2	GOM Seep 3	GOM Seep 4	08-185	08-187	08-191	08-218	08-229	01-27b	01-30b	05-348b	10-04
naphthalene	0.04	0.48	1526.6	0.25	2.19	1.03	0.34	11.41	7.37	7.31	2.44	5.79	6.95	3.06	2.90	2.50
1-methyl naphthalene	0.05	0.72	432.2	0.16	2.41	1.09	0.37	13.45	15.11	6.89	3.82	7.17	12.13	4.95	4.69	3.88
2-methyl naphthalene	0.06	0.71	0.00	0.25	1.77	0.80	0.26	8.54	10.10	4.73	2.89	4.52	8.05	3.01	2.85	2.61
acenaphthene	0.34	0.87	35.1	0.05	0.08	0.03	0.01	0.52	0.73	0.32	0.22	0.24	0.59	0.12	0.11	0.50
acenaphthylene	0.22	0.00	0.00	0.80	0.00	0.01	0.00	0.52	1.15	0.43	0.46	0.38	0.45	0.47	0.45	0.95
fluorene	15.4	18.6	276.3	0.00	0.30	0.08	0.03	1.40	1.48	1.33	0.36	0.94	2.14	0.68	0.64	0.30
phenanthrene	98.0	91.9	445.6	1.93	1.49	0.31	0.14	3.10	3.19	2.59	0.65	1.98	4.16	1.42	1.35	1.10
anthracene	4.54	3.34	24.5	0.32	0.05	0.01	0.01	0.30	0.24	0.16	0.08	0.17	0.16	0.05	0.05	0.12
2-methylanthracene	57.9	56.2	136.3	7.30	2.06	0.37	0.16	1.54	1.70	1.19	0.29	0.95	3.92	0.97	0.92	0.73
1-methylanthracene	50.1	47.6	119.9	3.84	1.11	0.20	0.08	1.52	1.73	1.03	0.29	0.94	3.09	0.77	0.73	0.88
1-methylphenanthrene	31.8	29.5	76.5	3.74	1.11	0.20	0.08	1.57	1.75	0.80	0.33	1.02	2.63	0.62	0.59	0.62
9-methylanthracene	2.07	1.67	6.04	0.22	0.03	0.01	0.00	0.11	0.07	0.06	0.10	0.04	0.20	0.09	0.09	0.26
fluoranthene	6.82	10.1	20.8	0.47	0.04	0.02	0.01	0.06	0.07	0.06	0.03	0.06	0.21	0.00	0.00	0.13
2,3-dimethylanthracene	17.7	17.0	30.8	3.44	0.24	0.04	0.01	0.19	0.25	0.11	0.04	0.13	0.33	0.10	0.09	0.12
pyrene	12.3	12.1	26.1	0.59	0.21	0.05	0.02	0.27	0.21	0.25	0.12	0.13	0.28	0.08	0.07	0.19
9,10-dimethylanthracene	49.5	56.3	79.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-methylfluoranthene	17.8	3.08	44.0	1.04	0.31	0.04	0.01	0.57	0.61	0.15	0.23	0.37	0.43	0.14	0.13	0.43
9-phenylanthracene	0.07	0.14	0.57	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
benz [*a*] anthracene	2.72	2.75	11.8	0.10	0.02	0.00	0.00	0.08	0.08	0.06	0.00	0.07	0.23	0.05	0.04	0.04
chrysene	30.0	39.1	70.8	0.63	0.24	0.03	0.01	0.33	0.33	0.08	0.00	0.21	0.36	0.08	0.07	0.20
6-methylchrysene	93.8	106.6	152.1	0.63	0.34	0.02	0.01	0.17	0.30	0.03	0.08	0.05	0.32	0.05	0.05	0.08
4-methylchrysene	6.51	6.22	11.7	0.29	0.08	0.01	0.00	0.09	0.10	0.01	0.01	0.02	0.11	0.02	0.02	0.01
6,8-dimethyl benz [*a*] anthracene	12.1	12.8	7.68	0.16	0.03	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.09	0.00	0.00	0.02
3,9-dimethyl benz [*a*] anthracene	7.92	8.40	26.1	0.16	0.05	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.05	0.02	0.01	0.01
benz [*b*] fluoranthene	3.46	4.13	6.52	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
benz [*k*] fluoranthene	2.62	1.91	6.86	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

7,12-dimethyl benz [*a*] anthracene	4.61	5.44	10.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
benz [*e*] pyrene	6.62	7.11	12.3	0.14	0.03	0.01	0.00	0.30	0.23	0.14	0.18	0.15	0.13	0.04	0.03	0.33
benz [*a*] pyrene	1.13	1.34	3.18	0.04	0.00	0.09	0.03	0.31	0.16	0.19	1.65	0.26	0.00	0.00	0.00	0.30
perylene	0.03	0.24	0.41	0.35	0.09	0.00	0.00	0.28	0.20	0.13	0.58	0.11	0.00	0.00	0.00	0.41
indeno [1,2,3-*c*,*d*] pyrene	0.17	0.00	1.32	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
dibenz [*a*,*h*] anthracene	1.40	0.24	4.41	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
benz [*g*,*h*,*i*] perylene	2.66	2.55	4.31	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
coronene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX E: Atmospheric and Surface Water PAH Data

Table E1. PAH Atmospheric Particulate Concentrations on Glass Fiber Filters (ng m^{-3}).

	2010						2011					
Air GFF	EPA - Rep 1	EPA - Rep 2	DISL	Turtle Cove	Cross Lake	Lake Okatibbee	EPA - Rep 1	EPA - Rep 2	DISL	Turtle Cove	Cross Lake	GOM Transect
naphthalene	0.05	0.05	0.03	0.05	0.03	0.02	0.06	0.06	0.04	0.04	0.03	0.01
1-methyl naphthalene	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.00
2-methyl naphthalene	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
acenaphthene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NQ	0.00	0.00	0.00	0.00
acenaphthylene	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
fluorene	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00
phenanthrene	0.05	0.05	0.04	0.06	0.07	0.04	0.04	0.06	0.06	0.05	0.03	0.01
anthracene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-methylanthracene	0.01	0.01	0.01	0.02	0.01	0.01	NQ	0.02	0.01	0.01	0.00	0.00
1-methylanthracene	0.00	0.00	0.00	0.01	0.01	0.00	NQ	0.01	0.00	0.00	0.00	0.00
1-methylphenanthrene	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00
9-methylanthracene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
fluoranthene	0.06	0.03	0.02	0.02	0.07	0.04	0.03	0.02	0.05	0.04	0.03	0.00
2,3-dimethylanthracene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
pyrene	0.09	0.03	0.02	0.02	0.05	0.03	0.03	0.03	0.04	0.03	0.02	0.01
9,10-dimethylanthracene	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.00
2-methylfluoranthene	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9-phenylanthracene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
benz [*a*] anthracene	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.00
chrysene	0.02	0.01	0.01	0.01	0.03	0.01	0.02	0.01	0.03	0.02	0.01	0.00
6-methylchrysene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4-methylchrysene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,8-dimethyl benz [*a*] anthracene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,9-dimethyl benz [*a*] anthracene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
benz [*b*] fluoranthene	0.03	0.02	0.01	0.01	0.05	0.02	0.02	NQ	0.03	0.01	0.02	NQ
benz [*k*] fluoranthene	0.01	0.00	0.00	0.00	0.01	0.01	0.00	NQ	0.01	0.00	0.00	NQ
7,12-dimethyl benz [*a*] anthracene	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	NQ

benz [*e*] pyrene	0.01	0.01	0.00	0.00	0.02	0.01	0.01	0.00	0.01	0.01	0.01	NQ
benz [*a*] pyrene	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.01	NQ
perylene	0.00	NQ	0.00	0.00	0.00	0.00	NQ	0.00	0.00	0.00	NQ	NQ
indeno [1,2,3-*c*,*d*] pyrene	0.00	0.01	0.00	0.00	0.03	0.03	0.02	0.00	0.01	0.00	0.01	0.00
dibenz [*a*,*h*] anthracene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
benz [*g*,*h*,*i*] perylene	0.01	0.02	0.01	0.00	0.04	0.03	0.02	0.02	0.02	0.01	0.02	0.00
coronene	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table E2. PAH Vapor-phase Concentrations on Polyurethane Foam Plugs (ng m^{-3}).

	2010						2011				
PUF	EPA - Rep 1	EPA - Rep 2	DISL	Turtle Cove	Cross Lake	Lake Okatibbee	EPA	DISL	Turtle Cove	Cross Lake	GOM Transect
naphthalene	0.43	0.63	0.11	NQ	3.41	0.61	NQ	NQ	0.07	0.23	NQ
1-methyl naphthalene	0.55	0.49	0.14	NQ	1.17	0.22	NQ	NQ	0.04	0.10	NQ
2-methyl naphthalene	0.31	0.27	0.08	NQ	0.73	0.14	NQ	NQ	0.02	0.06	NQ
acenaphthene	0.06	0.07	0.05	NQ	0.36	0.07	NQ	NQ	0.00	0.04	NQ
acenaphthylene	0.30	0.14	0.54	NQ	3.60	0.91	NQ	NQ	0.03	0.69	NQ
fluorene	1.20	NQ	1.79	NQ	4.57	NQ	0.12	NQ	0.11	0.79	NQ
phenanthrene	7.97	NQ	11.88	NQ	21.60	NQ	2.21	NQ	6.04	7.40	NQ
anthracene	0.42	NQ	1.10	NQ	0.66	NQ	0.07	NQ	0.42	0.16	NQ
2-methylanthracene	1.44	NQ	0.75	NQ	1.43	NQ	0.33	NQ	0.82	0.72	NQ
1-methylanthracene	0.84	NQ	0.34	NQ	0.53	NQ	0.21	NQ	0.49	0.30	NQ
1-methylphenanthrene	0.80	NQ	0.45	NQ	0.93	NQ	0.21	NQ	0.56	0.44	NQ
9-methylanthracene	0.00	NQ	0.00	NQ	0.00	NQ	0.01	NQ	0.02	0.01	NQ
fluoranthene	1.81	NQ	3.96	NQ	5.36	NQ	1.07	NQ	2.54	3.03	NQ
2,3-dimethylanthracene	0.84	NQ	0.03	NQ	0.05	NQ	0.03	NQ	0.07	0.04	NQ
pyrene	3.69	NQ	2.73	NQ	3.13	NQ	1.33	NQ	2.51	2.12	NQ
9,10-dimethylanthracene	2.62	NQ	0.00	NQ	0.00	NQ	0.07	NQ	0.26	0.09	NQ
2-methylfluoranthene	0.00	NQ	0.07	NQ	0.04	NQ	0.03	NQ	0.05	0.07	NQ
9-phenylanthracene	0.00	NQ	0.00	NQ	0.00	NQ	0.00	NQ	0.00	0.00	NQ
benz [*a*] anthracene	0.00	0.00	0.01	NQ	0.03	0.02	0.00	0.03	0.00	0.02	0.00
chrysene	0.00	0.08	0.05	NQ	0.06	0.02	0.02	0.13	0.03	0.08	0.01
6-methylchrysene	0.00	0.00	0.00	NQ	0.00	0.00	0.00	0.01	0.00	0.00	0.00
4-methylchrysene	0.00	0.00	0.00	NQ	0.00	0.00	0.00	0.01	0.00	0.00	0.00
6,8-dimethyl benz [*a*] anthracene	0.00	0.00	0.00	NQ	0.00	0.00	0.00	0.01	0.00	0.00	0.00
3,9-dimethyl benz [*a*] anthracene	0.00	0.00	0.00	NQ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
benz [*b*] fluoranthene	0.00	0.00	0.00	NQ	0.00	NQ	NQ	NQ	0.00	0.01	NQ
benz [*k*] fluoranthene	0.00	0.00	0.00	NQ	0.00	NQ	NQ	NQ	0.00	0.00	NQ
7,12-dimethyl benz [*a*] anthracene	0.00	0.00	0.00	NQ	0.00	NQ	NQ	NQ	0.00	0.00	NQ
benz [*e*] pyrene	0.00	0.00	0.00	NQ	0.00	NQ	NQ	NQ	NQ	0.01	NQ
benz [*a*] pyrene	0.00	0.00	0.00	NQ	0.00	NQ	NQ	NQ	NQ	0.00	NQ

perylene	0.00	0.00	0.00	NQ	0.00	NQ	NQ	NQ	NQ	NQ	NQ
indeno [1,2,3-*c*,*d*] pyrene	0.00	0.00	0.00	NQ	0.00	NQ	0.00	0.00	0.00	0.00	0.00
dibenz [*a*,*h*] anthracene	0.00	0.00	0.00	NQ	0.00	NQ	0.00	0.00	0.00	0.00	0.00
benz [*g*,*h*,*i*] perylene	0.00	0.00	0.00	NQ	0.00	NQ	0.00	0.00	NQ	0.00	0.00
coronene	0.00	0.00	0.00	NQ	0.00	NQ	0.00	0.00	0.00	0.00	0.00

Table E3a. PAH Particulate Concentrations on Window Film (ng m^{-2}).

	2010								
Window Film	EPA Rep 1	EPA Rep 2	EPA Rep 3	DISL Rep 1	DISL Rep 2	Turtle Cove pre-*TS Bonnie*	Turtle Cove post-*TS Bonnie*	Cross Lake	Lake Okatibbee
naphthalene	NQ	38.2	31.9	19.6	NQ	47.7	584.9	15.1	0.57
1-methyl naphthalene	NQ	4.34	3.86	2.30	NQ	6.53	126.1	1.95	0.06
2-methyl naphthalene	NQ	2.51	2.41	1.28	NQ	4.38	113.6	1.06	0.04
acenaphthene	NQ	5.37	0.00	0.00	NQ	0.00	439.6	0.00	0.00
acenaphthylene	NQ	0.00	0.00	1.45	NQ	0.00	506.4	0.00	0.00
fluorene	9.85	10.9	5.55	4.08	NQ	6.92	372.5	2.93	0.00
phenanthrene	46.8	48.2	39.3	35.9	NQ	39.0	563.0	19.6	0.82
anthracene	2.29	2.94	1.10	1.63	NQ	2.56	506.0	1.49	0.00
2-methylanthracene	32.8	27.8	23.8	12.6	NQ	23.6	138.4	8.57	0.91
1-methylanthracene	10.4	7.87	7.00	3.73	NQ	6.91	28.85	2.56	0.27
1-methylphenanthrene	10.7	9.22	7.13	3.99	NQ	7.42	81.10	2.74	0.26
9-methylanthracene	0.00	0.00	0.00	0.00	NQ	0.00	134.8	0.00	0.00
fluoranthene	32.8	29.4	50.4	59.0	NQ	20.0	895.8	14.1	0.08
2,3-dimethylanthracene	0.00	0.00	0.00	0.00	NQ	0.00	128.1	0.00	0.00
pyrene	30.4	27.2	50.6	32.9	NQ	16.2	995.4	10.7	0.37
9,10-dimethylanthracene	0.00	0.00	0.00	0.00	NQ	0.00	0.000	0.00	0.00
2-methylfluoranthene	0.00	0.00	0.00	0.00	NQ	0.00	196.8	0.00	0.00
9-phenylanthracene	0.00	0.00	0.00	0.00	NQ	0.00	197.8	0.00	0.00
benz [*a*] anthracene	1.37	1.27	4.54	1.48	NQ	0.00	501.2	0.94	0.00
chrysene	7.92	4.26	12.6	8.68	NQ	0.00	485.7	3.28	0.00
6-methylchrysene	0.00	0.00	0.00	0.00	NQ	0.00	199.7	0.00	0.00
4-methylchrysene	0.00	0.00	0.00	0.00	NQ	0.00	0.000	0.00	0.00
6,8-dimethyl benz [*a*] anthracene	0.00	0.00	0.00	0.00	NQ	0.00	102.3	0.00	0.00
3,9-dimethyl benz [*a*] anthracene	0.00	0.00	0.00	0.00	NQ	0.00	121.9	0.00	0.00
benz [*b*] fluoranthene	9.70	NQ	NQ	6.37	NQ	0.00	443.1	2.60	0.00
benz [*k*] fluoranthene	2.15	NQ	NQ	1.74	NQ	0.00	411.3	2.13	0.00
7,12-dimethyl benz [*a*] anthracene	0.00	NQ	NQ	0.00	NQ	0.00	0.000	0.00	0.00
benz [*e*] pyrene	4.83	NQ	NQ	2.75	NQ	0.00	118.5	2.36	0.00
benz [*a*] pyrene	0.00	NQ	NQ	0.90	NQ	0.00	465.4	0.51	0.00
perylene	0.00	NQ	NQ	0.00	NQ	0.00	36.11	0.00	0.00
indeno [1,2,3-*c*,*d*] pyrene	0.00	1.21	4.78	0.21	NQ	0.00	239.6	0.00	0.00
dibenz [*a*,*h*] anthracene	0.00	0.00	0.00	0.00	NQ	0.00	247.8	0.00	0.00
benz [*g*,*h*,*i*] perylene	2.40	2.35	5.67	1.32	NQ	0.00	256.4	0.00	0.00
coronene	0.00	0.00	0.00	0.00	NQ	0.00	0.000	0.00	0.00

Table E3b. PAH Particulate Concentrations on Window Film (ng m^{-2}).

	2011					
Window Film	EPA - Rep 1	EPA - Rep 2	EPA - Rep 3	DISL - Rep 1	DISL - Rep 2	Cross Lake
naphthalene	10.7	11.9	6.97	16.5	16.1	16.0
1-methyl naphthalene	1.71	2.84	1.41	3.30	4.09	7.46
2-methyl naphthalene	0.81	2.21	0.87	1.87	2.41	3.38
acenaphthene	0.00	0.18	NQ	NQ	0.41	0.83
acenaphthylene	0.00	1.20	1.09	5.25	8.13	1.40
fluorene	0.00	4.53	3.76	8.80	10.9	3.07
phenanthrene	13.7	23.9	19.6	44.5	53.9	24.7
anthracene	0.00	0.80	0.53	1.31	1.70	1.20
2-methylanthracene	0.00	NQ	NQ	7.11	4.03	NQ
1-methylanthracene	0.00	3.23	1.71	2.83	3.64	1.37
1-methylphenanthrene	0.00	2.92	1.71	2.93	3.51	1.70
9-methylanthracene	0.00	0.00	0.00	0.06	0.09	0.00
fluoranthene	0.00	6.65	5.77	19.6	22.0	34.7
2,3-dimethylanthracene	0.00	0.15	0.29	0.15	0.00	0.14
pyrene	0.00	6.40	4.45	10.4	11.6	28.7
9,10-dimethylanthracene	0.00	0.00	0.00	0.00	0.00	0.00
2-methylfluoranthene	0.00	0.35	0.00	0.00	0.58	1.51
9-phenylanthracene	0.00	0.00	0.00	0.00	0.00	0.00
benz [*a*] anthracene	0.00	NQ	NQ	NQ	1.19	7.19
chrysene	0.00	NQ	1.47	4.42	4.57	19.6
6-methylchrysene	0.00	0.00	0.00	0.00	0.00	0.32
4-methylchrysene	0.00	0.00	0.00	0.00	0.00	0.36
6,8-dimethyl benz [*a*] anthracene	0.00	0.00	0.00	0.00	0.00	0.90
3,9-dimethyl benz [*a*] anthracene	0.00	0.00	0.00	0.00	0.00	0.71
benz [*b*] fluoranthene	0.00	0.00	NQ	3.57	NQ	24.4
benz [*k*] fluoranthene	0.00	0.00	NQ	NQ	NQ	6.54
7,12-dimethyl benz [*a*] anthracene	0.00	0.00	0.00	0.00	0.00	0.00
benz [*e*] pyrene	0.00	0.00	NQ	1.12	NQ	10.5
benz [*a*] pyrene	0.00	0.00	0.00	NQ	0.00	10.6
perylene	0.00	0.00	NQ	0.02	NQ	0.85
indeno [1,2,3-*c,d*] pyrene	0.00	0.00	0.00	0.00	0.00	10.5
dibenz [*a,h*] anthracene	0.00	0.00	0.00	0.00	0.00	1.91
benz [*g,h,i*] perylene	0.00	0.00	0.00	0.00	0.00	15.8
coronene	0.00	0.00	0.00	0.00	0.00	1.72

Table E4. PAH Particle-Associated Water Concentrations on Glass Fiber Filters (ng l^{-1}).

	2010						2011		
Water GFF	Turtle Cove - Rep 1	Turtle Cove - Rep 2	Cross Lake	Cross Lake rain	Lake Okatibbee - Rep 1	Lake Okatibbee - Rep 2	Turtle Cove	Cross Lake	GOM Transect
naphthalene	4.25	1.24	NQ	3.37	2.56	NQ	0.47	1.03	NQ
1-methyl naphthalene	1.10	0.28	NQ	1.39	0.66	NQ	0.08	0.19	NQ
2-methyl naphthalene	0.58	0.15	NQ	0.56	0.33	NQ	0.04	0.09	NQ
acenaphthene	NQ	0.03	NQ	0.04	0.04	NQ	NQ	0.02	NQ
acenaphthylene	0.16	0.11	NQ	0.17	0.23	NQ	0.05	0.12	NQ
fluorene	0.41	0.28	NQ	0.35	0.40	NQ	0.09	0.16	NQ
phenanthrene	3.48	1.96	NQ	2.65	3.80	NQ	0.82	0.75	NQ
anthracene	0.08	0.07	NQ	0.06	0.08	NQ	0.01	0.04	NQ
2-methylanthracene	NQ	NQ	NQ	0.22	NQ	NQ	NQ	NQ	NQ
1-methylanthracene	NQ	0.13	NQ	0.19	NQ	NQ	NQ	NQ	NQ
1-methylphenanthrene	0.17	0.12	NQ	0.17	0.14	NQ	0.03	0.06	NQ
9-methylanthracene	0.00	0.00	NQ	0.00	0.00	NQ	0.00	0.00	NQ
fluoranthene	4.49	2.68	NQ	3.06	4.47	NQ	0.87	0.55	NQ
2,3-dimethylanthracene	0.01	0.02	NQ	0.02	0.00	NQ	0.00	0.00	NQ
pyrene	5.64	3.94	NQ	6.62	3.60	NQ	1.27	0.79	NQ
9,10-dimethylanthracene	0.00	0.60	NQ	0.00	0.00	NQ	0.21	0.35	NQ
2-methylfluoranthene	0.05	0.12	NQ	0.00	0.26	NQ	0.00	0.01	NQ
9-phenylanthracene	0.00	0.00	NQ	0.00	0.00	NQ	0.00	0.00	NQ
benz [*a*] anthracene	0.20	0.18	NQ	0.20	0.19	NQ	0.05	0.07	NQ
chrysene	0.82	0.58	NQ	0.47	1.22	NQ	0.12	0.16	NQ
6-methylchrysene	0.00	0.00	NQ	0.00	0.01	NQ	0.00	0.00	NQ
4-methylchrysene	0.00	0.00	NQ	0.00	0.01	NQ	0.00	0.00	NQ
6,8-dimethyl benz [*a*] anthracene	0.00	0.00	NQ	0.00	0.02	NQ	0.00	0.01	NQ
3,9-dimethyl benz [*a*] anthracene	0.00	0.00	NQ	0.00	0.00	NQ	0.00	0.00	NQ
benz [*b*] fluoranthene	0.60	0.55	NQ	0.40	0.93	NQ	0.09	NQ	NQ
benz [*k*] fluoranthene	0.12	0.06	NQ	0.02	NQ	NQ	NQ	NQ	NQ
7,12-dimethyl benz [*a*] anthracene	0.00	0.00	NQ	0.00	0.00	NQ	0.00	0.00	NQ
benz [*e*] pyrene	0.31	0.29	NQ	0.26	0.35	NQ	0.05	NQ	NQ
benz [*a*] pyrene	0.15	0.17	NQ	0.13	0.15	NQ	0.03	NQ	NQ

perylene	0.19	0.20	NQ	0.55	1.05	NQ	0.07	0.16	NQ
indeno [1,2,3-*c*,*d*] pyrene	0.06	0.10	NQ	0.19	0.01	NQ	0.00	0.01	NQ
dibenz [*a*,*h*] anthracene	0.00	0.00	NQ	0.00	0.00	NQ	0.00	0.00	NQ
benz [*g*,*h*,*i*] perylene	0.20	0.40	NQ	0.59	0.14	NQ	0.03	0.06	NQ
coronene	0.00	0.00	NQ	0.00	0.00	NQ	0.00	0.00	NQ

Table E5. Dissolved PAH Water Concentrations (ng l^{-1}).

	2010				2011		
XAD	Turtle Cove	Cross Lake	Cross Lake rain	Lake Okatibbee	Turtle Cove	Cross Lake	GOM Transect
naphthalene	NQ	NQ	NQ	NQ	NQ	NQ	3.31
1-methyl naphthalene	NQ	NQ	NQ	NQ	NQ	NQ	0.64
2-methyl naphthalene	NQ	NQ	NQ	NQ	NQ	NQ	0.49
acenaphthene	NQ	NQ	NQ	NQ	NQ	NQ	0.20
acenaphthylene	NQ	NQ	NQ	NQ	NQ	NQ	0.28
fluorene	NQ	NQ	NQ	NQ	1.23	NQ	0.89
phenanthrene	NQ	NQ	NQ	NQ	7.63	NQ	4.14
anthracene	NQ	NQ	NQ	NQ	0.16	NQ	0.09
2-methylanthracene	NQ	NQ	NQ	NQ	0.42	NQ	0.56
1-methylanthracene	NQ	NQ	NQ	NQ	0.22	NQ	0.28
1-methylphenanthrene	NQ	NQ	NQ	NQ	0.26	NQ	0.31
9-methylanthracene	NQ	NQ	NQ	NQ	NQ	NQ	0.00
fluoranthene	NQ	NQ	NQ	NQ	2.16	NQ	0.86
2,3-dimethylanthracene	NQ	NQ	NQ	NQ	0.01	NQ	0.01
pyrene	NQ	NQ	NQ	NQ	3.56	NQ	1.72
9,10-dimethylanthracene	NQ	NQ	NQ	NQ	0.00	NQ	0.03
2-methylfluoranthene	NQ	NQ	NQ	NQ	0.03	NQ	0.02
9-phenylanthracene	NQ	NQ	NQ	NQ	0.00	NQ	0.00
benz [*a*] anthracene	NQ	NQ	6.14	NQ	NQ	NQ	NQ
chrysene	NQ	NQ	13.25	NQ	NQ	NQ	NQ
6-methylchrysene	NQ	NQ	0.00	NQ	NQ	0.00	NQ
4-methylchrysene	NQ	NQ	0.00	NQ	NQ	0.00	NQ
6,8-dimethyl benz [*a*] anthracene	NQ	NQ	0.00	NQ	NQ	0.00	NQ
3,9-dimethyl benz [*a*] anthracene	NQ	NQ	0.00	NQ	NQ	0.00	NQ
benz [*b*] fluoranthene	NQ	NQ	3.96	NQ	NQ	NQ	NQ
benz [*k*] fluoranthene	NQ	NQ	0.87	NQ	NQ	NQ	NQ
7,12-dimethyl benz [*a*] anthracene	NQ	NQ	0.00	NQ	NQ	NQ	NQ
benz [*e*] pyrene	NQ	NQ	2.60	NQ	NQ	NQ	NQ
benz [*a*] pyrene	NQ	NQ	0.90	NQ	NQ	NQ	NQ
perylene	NQ	NQ	0.00	NQ	NQ	NQ	NQ
indeno [1,2,3-*c,d*] pyrene	NQ	NQ	0.00	NQ	NQ	NQ	0.00
dibenz [*a,h*] anthracene	NQ	NQ	0.00	NQ	NQ	NQ	0.00
benz [*g,h,i*] perylene	NQ	NQ	0.00	NQ	NQ	NQ	0.00
coronene	NQ	NQ	0.00	NQ	NQ	NQ	0.00

APPENDIX F: Lab Blank PAH Data

Table F1. PAH Concentrations from Lab Blanks Extracted with Samples (µg/g).

		Sand (ASE extracted)	Sand (ASE Extracted)	Spiked (Surrogate and Internal Stnds only)	Sand (ASE Extracted)	Solvent (Soxhlet extracted)	Kimwipes (ASE extracted)
	Lab Blank Averaged	Lab Blank 12-17-10	Lab Blank 1-20-11	Lab Blank 6-23-11	Lab Blank 8-2-11	Lab Blank 1-13-12	Lab Blank 2-14-12
naphthalene	0.0049	0.0000	0.0055	0.0039	0.0052	0.0103	0.0045
1-methyl naphthalene	0.0007	0.0000	0.0005	0.0004	0.0011	0.0014	0.0010
2-methyl naphthalene	0.0004	0.0000	0.0001	0.0002	0.0006	0.0007	0.0007
acenaphthene	0.0002	0.0000	0.0000	0.0002	0.0005	0.0001	0.0001
acenaphthylene	0.0003	0.0000	0.0000	0.0002	0.0006	0.0004	0.0006
fluorene	0.0009	0.0000	0.0007	0.0006	0.0019	0.0006	0.0019
phenanthrene	0.0054	0.0000	0.0044	0.0015	0.0071	0.0022	0.0172
anthracene	0.0002	0.0000	0.0000	0.0001	0.0003	0.0000	0.0007
2-methylanthracene	0.0018	0.0000	0.0031	0.0000	0.0016	0.0001	0.0062
1-methylanthracene	0.0009	0.0000	0.0009	0.0000	0.0005	0.0001	0.0038
1-methylphenanthrene	0.0006	0.0000	0.0000	0.0000	0.0005	0.0001	0.0029
9-methylanthracene	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0015
fluoranthene	0.0012	0.0000	0.0000	0.0003	0.0018	0.0005	0.0042
2,3-dimethylanthracene	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004
pyrene	0.0012	0.0000	0.0000	0.0002	0.0017	0.0009	0.0043
9,10-dimethylanthracene	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006
2-methylfluoranthene	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004
9-phenylanthracene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
benz [*a*] anthracene	0.0005	0.0000	0.0000	0.0004	0.0009	0.0001	0.0016
chrysene	0.0009	0.0000	0.0000	0.0002	0.0009	0.0005	0.0040
6-methylchrysene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002
4-methylchrysene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003
6,8-dimethyl benz [*a*] anthracene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002
3,9-dimethyl benz [*a*] anthracene	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004
benz [*b*] fluoranthene	0.0013	0.0000	0.0000	0.0000	0.0009	0.0002	0.0068

benz [*k*] fluoranthene	0.0005	0.0000	0.0000	0.0000	0.0002	0.0001	0.0028
7,12-dimethyl benz [*a*] anthracene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
benz [*e*] pyrene	0.0006	0.0000	0.0000	0.0000	0.0002	0.0000	0.0031
benz [*a*] pyrene	0.0004	0.0000	0.0000	0.0001	0.0003	0.0002	0.0018
perylene	0.0007	0.0000	0.0000	0.0002	0.0000	0.0004	0.0039
indeno [1,2,3-*c*,*d*] pyrene	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0008
dibenz [*a*,*h*] anthracene	0.0006	0.0034	0.0000	0.0000	0.0000	0.0000	0.0000
benz [*g*,*h*,*i*] perylene	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0026
coronene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

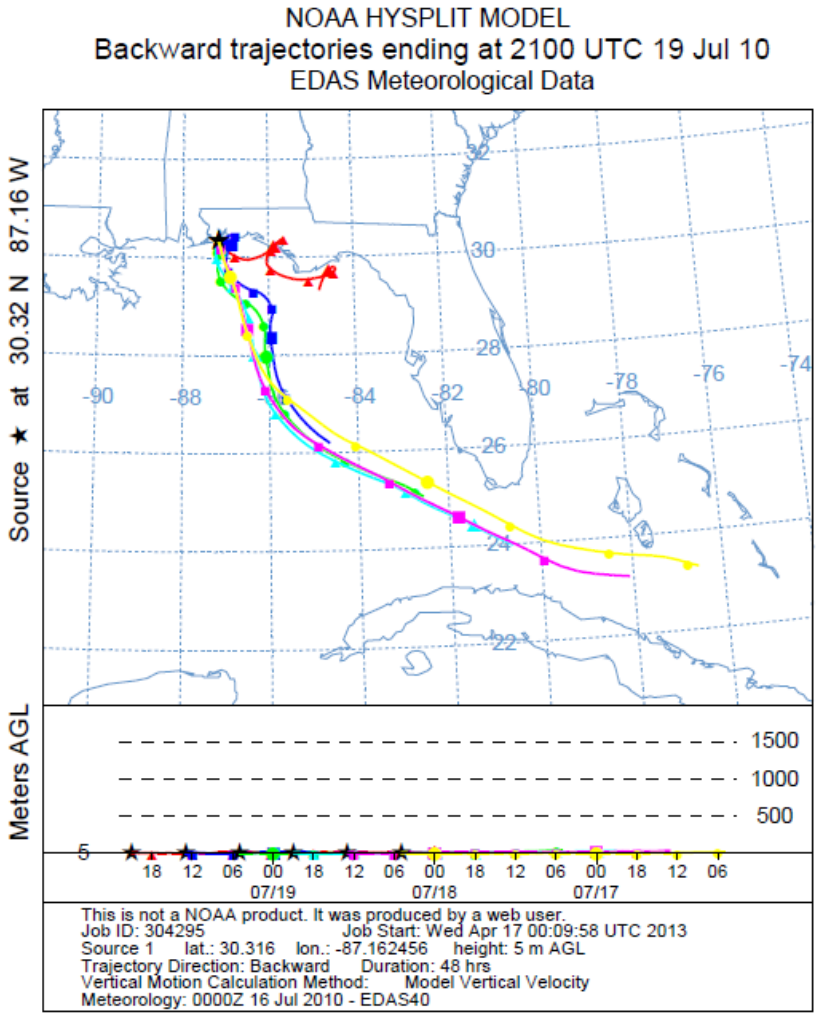
APPENDIX G**:** Particle Back Trajectories for Sampling Locations

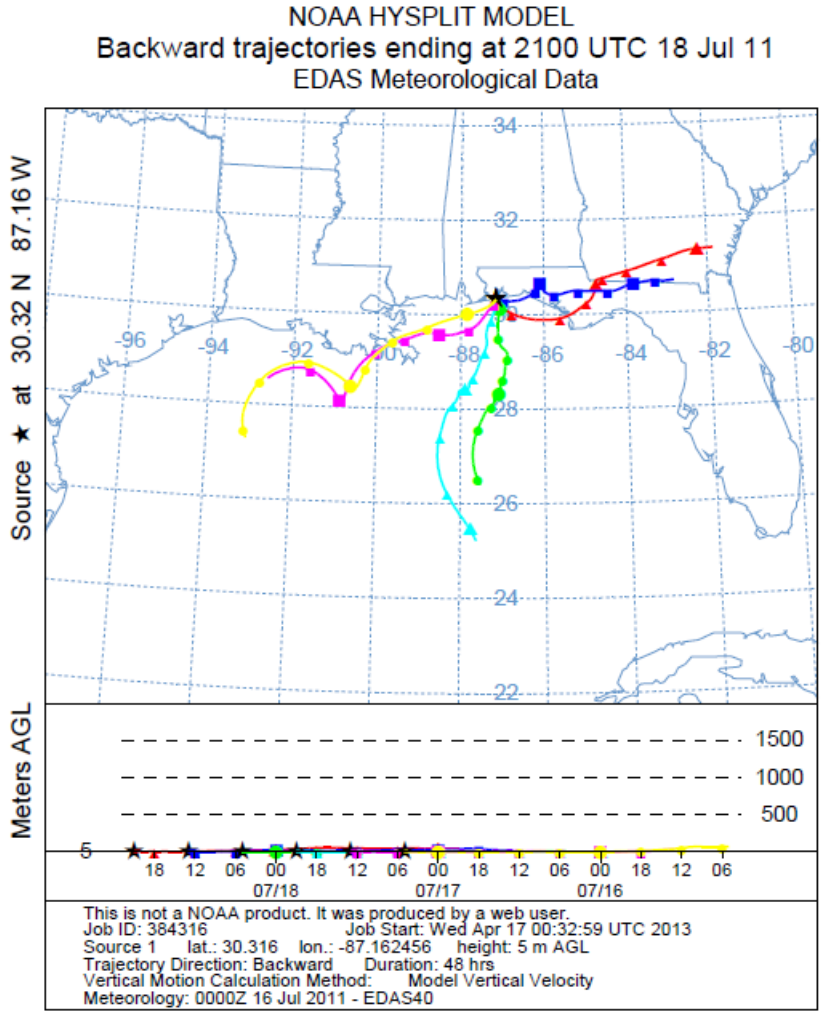
Particle back trajectories were calculated for air arriving at the sampling site at every 6 hour time point from the end of the sampling period to 48 h previous. Each trajectory for a given sampling date is denoted by a different color. The bottom panels of each map mark the height in meters above ground level (AGL) of the airmass during its path to the study site. Trajectories were computed using the NOAA HYbrid Single-Particle Lagrangian Integrated Trajectory Model (http://www.arl.noaa.gov/ready/hysplit4.html).

Reference:

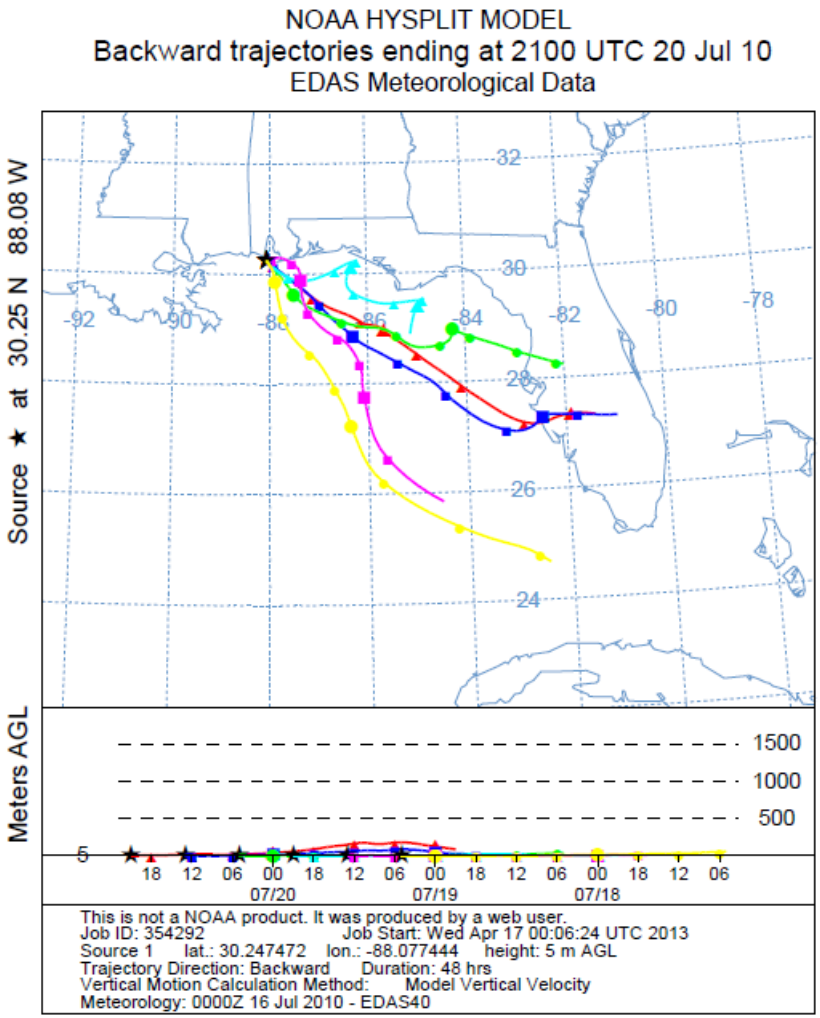
Draxler, R.R. and Rolph, G.D., 2003. HYSPLIT (HYbrid Single-Particle Lagrangian Integrated Trajectory) Model access via NOAA ARL READY Website: (http://www.arl.noaa.gov/ready/hysplit4.html). NOAA Air Resources Laboratory, Silver Spring, MD.

EPA at Gulf Breeze, FL





DISL, AL


NOAA HYSPLIT MODEL
Backward trajectories ending at 2100 UTC 20 Jul 10
EDAS Meteorological Data
Source ★ at 30.25 N 88.08 W
Meters AGL
1500
1000
500
5
18 12 06 00 18 12 06 00 18 12 06 00 18 12 06
07/20 07/19 07/18
This is not a NOAA product. It was produced by a web user.
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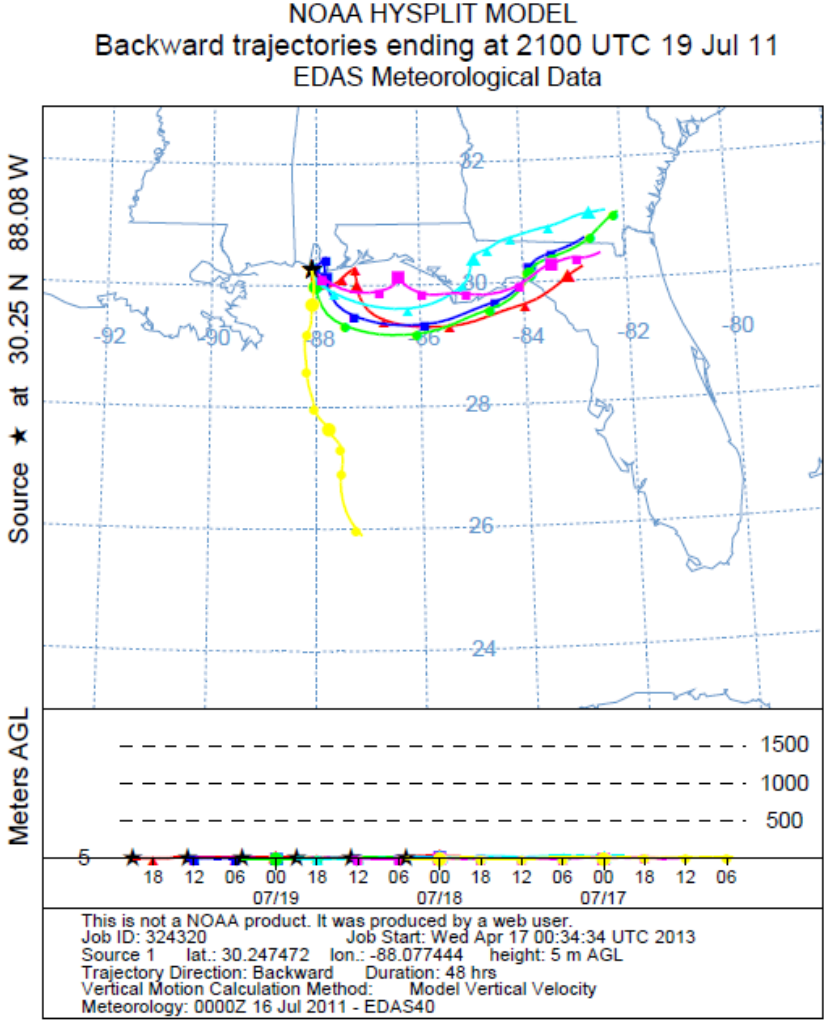
Vertical Motion Calculation Method: Model Vertical Velocity
Meteorology: 0000Z 16 Jul 2010 - EDAS40


NOAA HYSPLIT MODEL
Backward trajectories ending at 2100 UTC 19 Jul 11
EDAS Meteorological Data
Source ★ at 30.25 N 88.08 W
Meters AGL
1500
1000
500
5
18 12 06 00 18 12 06 00 18 12 06 00 18 12 06
07/19 07/18 07/17
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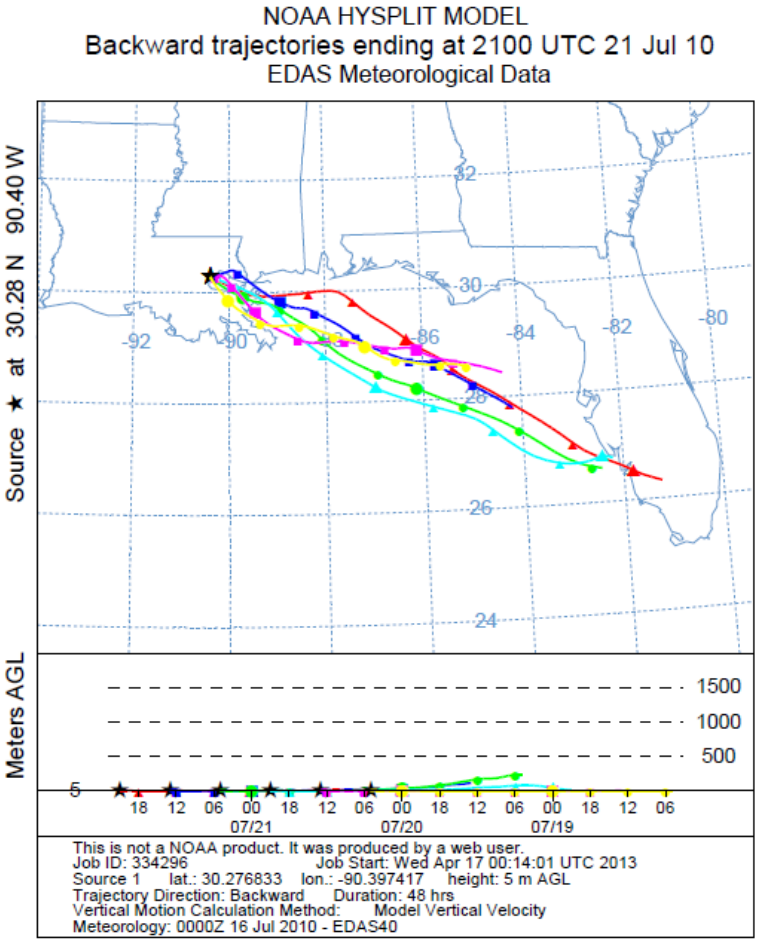
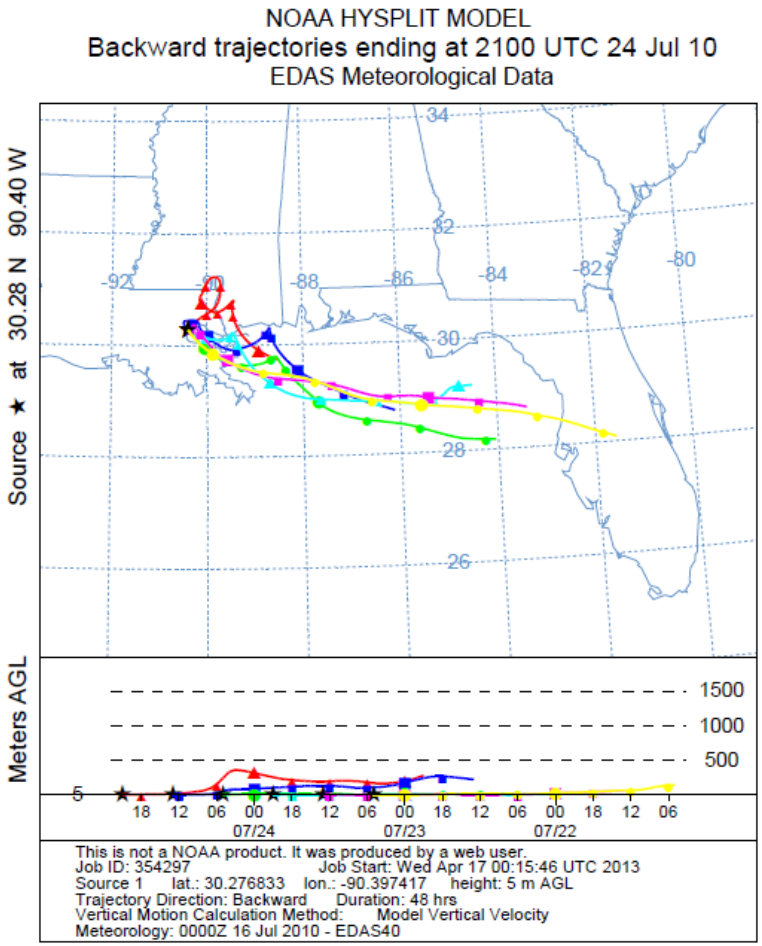
Meteorology: 0000Z 16 Jul 2011 - EDAS40

Turtle Cove, LA

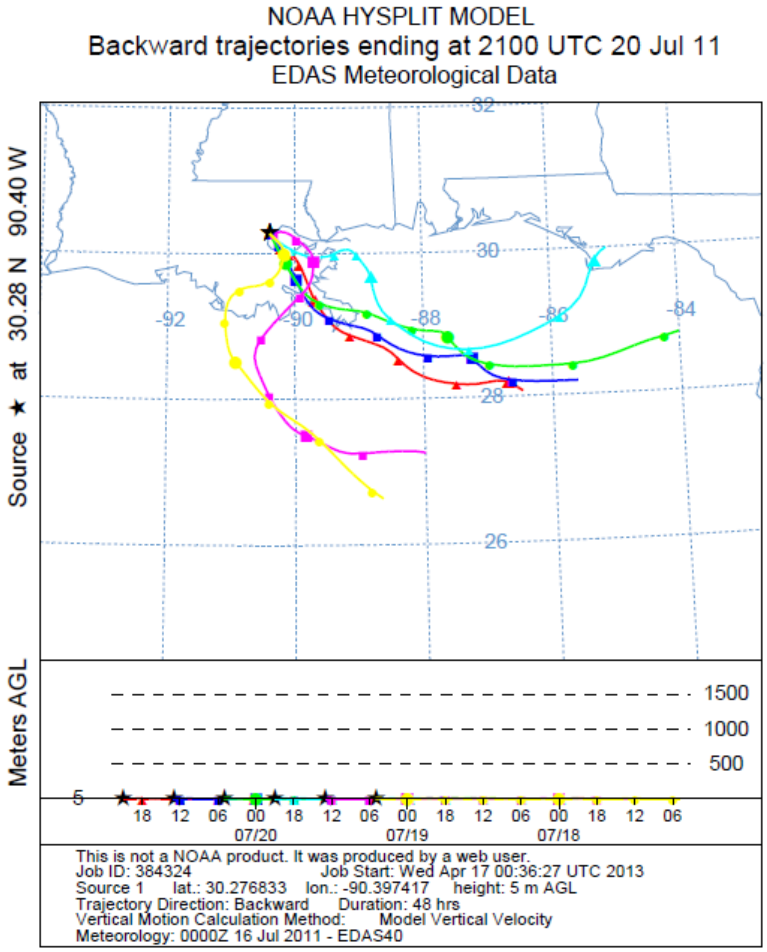
Pre-*TS Bonnie*



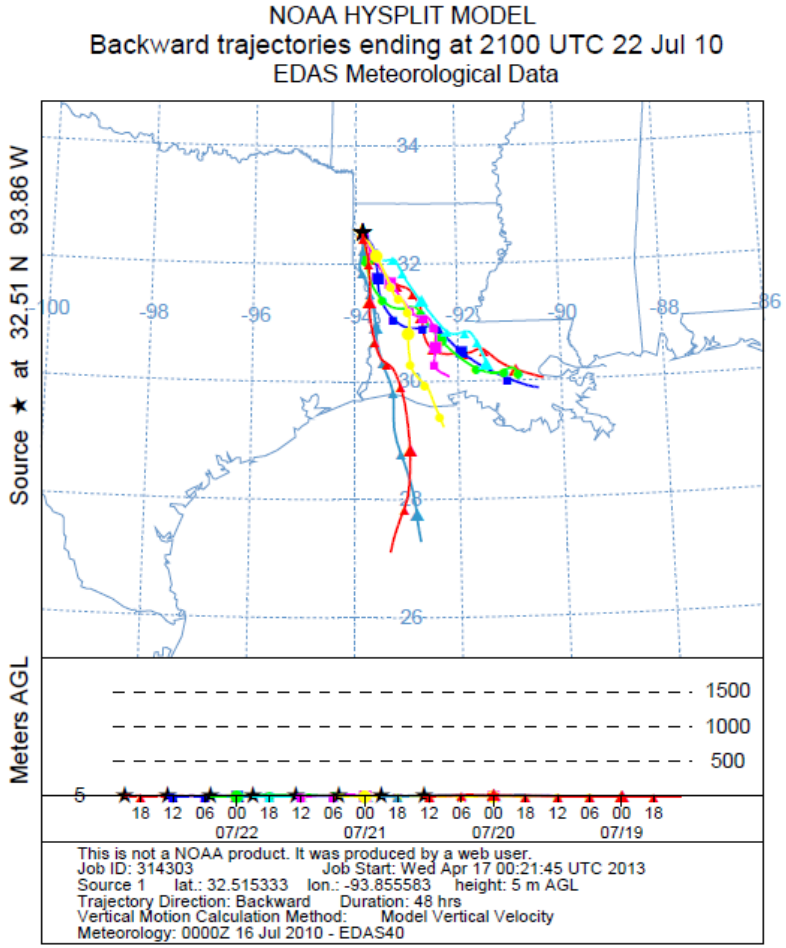
Post-*TS Bonnie*

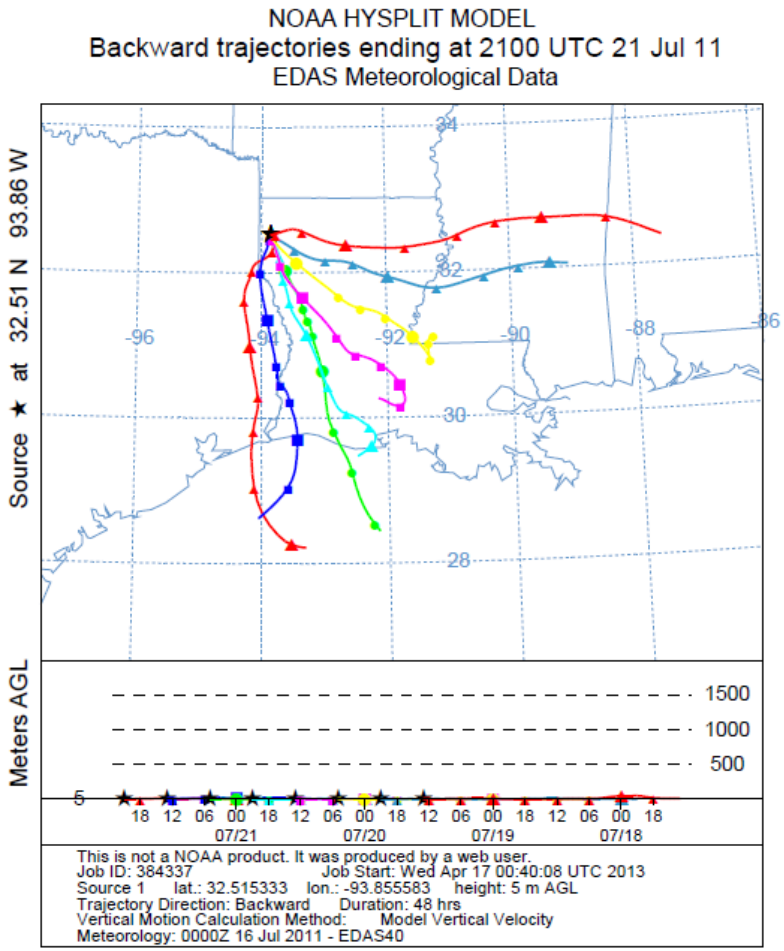


Turtle Cove, LA continued…



Cross Lake, LA





Lake Okatibbee, MS