

Oil Sample Analysis Report

NOAA Marine Fisheries Service

Case Number DWH

Marine Safety Laboratory

Case Number 11-264



U.S. Department of
Homeland Security

**United States
Coast Guard**



Manager
U.S. Coast Guard
Marine Safety Laboratory

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16450
21 Jul 2011

NOAA Marine Fisheries Service
Attn: Elizabeth Tuohy-Sheen
75 Virginia Beach Dr.
Miami, FL 33149

Dear Elizabeth Tuohy-Sheen:

The laboratory analysis of this case has been completed and our report is forwarded. The technical data supporting the report (spectrograms and chromatograms) have been archived at our facility and are available upon request. We will maintain the oil samples in refrigerated storage pending final case disposition.

Questions concerning this report or the analytical methods used should be directed to the Supervisor of Analysis, Kristy Juare.


K. JUARE
By direction

Encl: (1) MSL Report 11-264

**United States Coast Guard
Marine Safety Laboratory
Oil Spill Identification Report
11-264**

Requestor: NOAA Marine Fisheries Service

Unit Case/Activity Number: DWH

Received: 15-Jul-11 **Via:** Federal Express 7973 0541 2588

Number Of Samples: 12

Lab NO. of Spills: n/a

Lab NO. of Suspects: 1 through 12

Lab NO. of Background: n/a

Analysis Methods:

- GAS CHROMATOGRAPHY (GC)
- GAS CHROMATOGRAPHY-MASS SPECTROMETRY (GC-MS)
- INFRARED SPECTROSCOPY (IR)

Laboratory's Conclusion (as explained below): MATCH

SPECIAL INSTRUCTIONS: Compare to the Deepwater Horizon oil spill. Samples 10-095-1 and 10-220-7 were reanalyzed as representative Deepwater Horizon samples.

RESULTS:

1. Samples 11-264-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12 were specified to be representative of samples collected from dolphins. Analysis indicates:
 - A. Samples 11-264-2 and 9 contain moderately degraded crude oil. Non-petroleum contamination is present in both samples.
 - B. Samples 11-264-6 and 7 contain moderately to severely degraded crude oil. Non-petroleum contamination is present in both samples.
 - C. Samples 11-264-3, 4 and 5 contain a small amount of moderately degraded crude oil. The quantity of petroleum oil present in these samples is not sufficient for conclusive comparison purposes based on the analysis conducted.
 - D. Samples 11-264-1, 8, 10, 11 and 12 do not contain a quantity of petroleum oil detectable by the analysis conducted. A significant amount of non-petroleum contamination is present in each sample.
2. Samples 10-095-1 and 10-220-7 contain crude oil with characteristics similar to those of samples 11-264-2, 6, 7 and 9. Differences are attributable to weathering and non-petroleum contamination.

CONCLUSIONS:

1. Samples 11-264-2, 6, 7 and 9 are derived from the Deepwater Horizon oil spill.
2. Samples 11-264-1, 3, 4, 5, 8, 10, 11 and 12 do not contain a quantity of petroleum oil sufficient for comparison purposes based on the analysis conducted.

SUPERVISOR OF ANALYSIS

K. JUAIRE



DATE

21-Jul-11

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**United States Coast Guard
Marine Safety Laboratory**

**Oil Spill Identification Analysis
Cost Recovery Documentation**

Laboratory Case Number: 11-264
Requestor: NOAA Marine Fisheries Service
Unit Case Number: DWH
Number of Samples: 14
Cost Per Sample Prepared: \$20.00
Total Costs of Sample Preparation: \$280.00
Number of Analysis: 34
Cost Per Sample Prepared: \$86.00
Total Costs for Analysis: \$2,924.00
TOTAL COSTS: \$3,204.00

This documentation is provided for purposes of Phase IV - Documentation and Cost Recovery under the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300)

Signature:  **Date:** 21 Jul 2011

**United States Coast Guard
Marine Safety Laboratory Sample
Check-In Log**

MSL Case/Activity Number: 11-264

Requestor: NOAA Marine Fisheries Service

Unit Case Number: DWH

Federal Project Number:

Delivery Method: Federal Express

Received Date: 15 Jul 11

Delivery Number: 7973 0541 2588

Priority: Yes **Rush:** No **Comparison:** Yes

Lab Number 11-264	Sample Descriptions from Sample Jars	Spill	Source
1	MCT-2010-0524-001 BP 2010 LA28 SWAB 5/24/10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	MCT-2010-0524 LA001 BP 2010 LA28 TONGUE DEPRESSOR 5/24/10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	ECWR062310-13 SWAB	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	ECWR062310-13 S. LONGIROSTRIS 2 TONGUE DEPRESSORS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	ECWR062310-13 S. LONGIROSTRIS 2 TONGUE DEPRESSORS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	MCT20100902-LA002 2 TONGUE DEPRESSORS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	MCT20100902-LA002 2 TONGUE DEPRESSORS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	MCT-20100606-LA002 MOUTH SWAB 6-6-10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	MCT-20100606-LA001 TONGUE DEPRESSOR 6/6/10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	6IIMMS061110 CAUDAL OIL LINE SWAB	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Remarks: Compare to DWH. Samples designated "Source" for comparison purposes only.			

Samples checked in by: KRISTY JUAIRE *Kristy Juare* **Date:** 15 Jul 11

Sample Custodian: MST3 MICHELLE KOSMO *Michelle Kosmo* **Date:** 18 Jul 11

Supervisor of Analysis: K. JUAIRE *Kristy Juare* **Date:** 21 Jul 11

**United States Coast Guard
Marine Safety Laboratory
Check-In Log**

MSL Case Number: 11-264

Lab Number 11-264	Sample Descriptions from Sample Jars	Spill	Source
11	611MMS061110 BLOWHOLE SWAB	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	611MMS061110 EPIDERMAL AXILLA SWAB	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13		<input type="checkbox"/>	<input type="checkbox"/>
14		<input type="checkbox"/>	<input type="checkbox"/>
15		<input type="checkbox"/>	<input type="checkbox"/>
16		<input type="checkbox"/>	<input type="checkbox"/>
17		<input type="checkbox"/>	<input type="checkbox"/>
18		<input type="checkbox"/>	<input type="checkbox"/>
19		<input type="checkbox"/>	<input type="checkbox"/>
20		<input type="checkbox"/>	<input type="checkbox"/>

Samples checked in by: KRISTY JUAIRE *Kristy Juare* Date: 15 Jul 11
 Sample Custodian: MST3 MICHELLE KOSMO *Michelle Kosmo* Date: 18 Jul 11
 Supervisor of Analysis: K. JUAIRE *Kristy Juare* Date: 21 Jul 11

**United States Coast Guard
Marine Safety Laboratory Sample
Check-In Log**

MSL Case/Activity Number: 10-095

Requestor: Marine Safety Unit Morgan City

Unit Case Number: 3721503

Federal Project Number: N10036

Delivery Method: Federal Express

Received Date: 14 May 10

Delivery Number: 8697 9761 8027 / 8049

Priority: Yes

Rush: No

Comparison: No

Lab Number 10-095	Sample Descriptions from Sample Jars	Spill	Source
1	DTS-6 5,000 FT VESSEL: SKANDI - NEPTUNE 65% OIL KMS,ADM 5-5-10 1813	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	DTS-6 VESSEL: SKANDI NEPTUNE < 1% OIL BOTTOM KMS,ADM 5-5-10 1813	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3		<input type="checkbox"/>	<input type="checkbox"/>
4		<input type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>
9		<input type="checkbox"/>	<input type="checkbox"/>
10		<input type="checkbox"/>	<input type="checkbox"/>

Remarks: ID ONLY.

Samples checked in by: MST1 ALICIA TODMAN

Date: 14 May 10

Sample Custodian: MST2 JOHN AGAPITO

Date: 5/21/10

Supervisor of Analysis: K. JUAREZ

Date: ^{KLJ}
~~10~~ 01 JUN 10

**United States Coast Guard
Marine Safety Laboratory Sample
Check-In Log**

MSL Case/Activity Number: 10-220

Requestor: Sector Mobile

Unit Case Number 3789039

Federal Project Number:

Delivery Method: Federal Express

Received Date: 09 Jul 10

Delivery Number: 8726 4052 5936/5925

Priority: No **Rush:** No **Comparison:** Yes

Lab Number 10-220	Sample Descriptions from Sample Jars	Spill	Source
1	PC1 PASS CHRISTIAN BEACH MISS TAR BALL 7JULY10 1016	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	PC2 PASS CHRISTIAN BEACH MISS. TAR BALL 7JULY10 1020	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	LB1 LONG BEACH MISS TAR BALLS 7JULY10 1123	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	LB2 LONG BEACH MISS TAR BALLS 7JULY10 1130	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	3789039-GSI-SMW FIRST TAR PATTY TAKEN FROM GULF SHORES, AL.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	3789039-GS2-SMW SECOND TAR PATTY TAKEN FROM GULF SHORES, AL. 07JUL2010	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	3789039-FM1-SMW FIRST TAR PATTY TAKEN FROM FORT MORGAN, AL. 07JUL2010	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	3789039-FM2-SMW SECOND TAR PATTY TAKEN FROM FORT MORGAN, AL. 07JUL2010	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	3789039-D11-SMW FIRST TAR PATTY TAKEN FROM DAUPHIN ISLAND, AL. 07JUL2010	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10	3789039-D12-SMW SECOND TAR PATTY TAKEN FROM DAUPHIN ISLAND, AL. 07JUL2010	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remarks: Compare to Deepwater Horizon.

Samples checked in by: MST3 ZACHARY COTE *Zachary A. Cote* **Date:** 09 Jul 10

Sample Custodian: MST2 JOHN AGAPITO *John Agapito* **Date:** 13 JUL 10

Supervisor of Analysis: K. JUAIRE *Kristy Juarez* **Date:** 14 JUL 10