

# **Oil Sample Analysis Report**

**Marine Safety Detachment Peoria**

**Case / Activity Number 4443456**

**Marine Safety Laboratory**

**Case Number 12-243**



U.S. Department of  
Homeland Security

United States  
Coast Guard



Manager  
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16450  
21 Sep 2012

## MEMORANDUM

From: *Kristy Juare*  
K. Juare  
CG MSL

To: CG MSD Peoria

Subj: OIL SAMPLE ANALYSIS REPORT, MSL CASE NUMBER 12-243  
UNIT CASE / ACTIVITY NUMBER 4443456

1. 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 The technical data supporting the report (spectrograms and chromatograms) have been archived at our facility and are available upon request.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.
2. Questions concerning this report or the analytical methods used should be directed to the Supervisor of Analysis, Kristy Juare.

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Enclosure: (1) MSL Report 12-243

**United States Coast Guard  
Marine Safety Laboratory  
Oil Spill Identification Report  
12-243**

**Requestor:** Marine Safety Detachment Peoria

**Unit Case/Activity Number:** 4443456

**Received:** 19-Sep-12

**Via:** Federal Express 7989 9428 6020/8990 0008 3210

**Number Of Samples:** 9

**Lab NO. of Spills:** 2, 4 and 5

**Lab NO. of Suspects:** 3, 6, 7, 8, 9

**Lab NO. of Background:** 1

**Analysis Methods:**

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

**Laboratory's Conclusion (as explained below): MATCH**

**RESULTS:**

1. Samples 12-243-2, 4 and 5 were specified to be representative of spilled oil. Analysis indicates these samples are similar to each other and contain primarily lubricating oil. Differences are attributable to slight weathering and to the non-petroleum contamination observed in each sample.
2. Suspected source sample 12-243-6 contains lubricating oil with characteristics similar to those of spill samples 12-243-2, 4 and 5. Differences are attributable to weathering and non-petroleum contamination.
3. Suspected source sample 12-243-7 contains lubricating oil with characteristics somewhat similar to those of spill samples 12-243-2, 4 and 5. This sample contains the same lubricating oil as that present in spill samples 12-243-2, 4 and 5. However, slight differences between the overall profiles indicate petroleum oil is not discharging directly from suspected source sample 12-243-7.
4. Suspected source samples 12-243-8 and 9 contain traces of petroleum oil. The quantity is not sufficient for comparison purposes based on the analysis conducted.
5. Suspected source sample 12-243-3 does not contain a quantity of petroleum oil detectable by the analysis conducted.
6. Sample 12-243-1 was specified to represent clean water. No petroleum oil was detected.

**CONCLUSIONS:**

1. Samples 12-243-2, 4 and 5 represent different portions of the same spilled oil.
2. Suspected source sample 12-243-6 and spill samples 12-243-2, 4 and 5 are derived from a common source of petroleum oil.

**SUPERVISOR OF ANALYSIS**

K. JUAIRE



**DATE** 21-Sep-12

**United States Coast Guard  
Marine Safety Laboratory  
Oil Spill Identification  
Report Continuation  
12-243**

3. Suspected source sample 12-243-7 and spill samples 12-243-2, 4 and 5 are related through a common source of petroleum oil, but sample 12-243-7 does not appear to be the direct source of the spilled oil.
4. Suspected source samples 12-243-8 and 9 do not contain a quantity of petroleum oil sufficient for comparison purposes.
5. Suspected source sample 12-243-3 does not contain a quantity of petroleum oil detectable by the analysis conducted.
6. Sample 12-243-1 contains essentially oil-free water.

SUPERVISOR OF ANALYSIS

K. JUAIRE



DATE 21-Sep-12

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**United States Coast Guard  
Marine Safety Laboratory**

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**Oil Spill Identification Analysis  
Cost Recovery Documentation**

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**Laboratory Case Number:** 12-243  
**Requestor:** Marine Safety Detachment Peoria  
**Unit Case/Activity Number:** 4443456  
**Number of Samples:** 10  
**Cost Per Sample Prepared:** \$20.00  
**Total Costs of Sample Preparation:** \$200.00  
**Number of Analyses:** 22  
**Cost Per Sample Analyzed:** \$86.00  
**Total Costs for Analysis:** \$1,892.00  
**TOTAL COSTS:** \$2,092.00

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 Sep 12

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

**MSL Case/Activity Number: 12-243**

**Requestor:** Marine Safety Detachment Peoria

**Unit Case Number** 4443456

**Federal Project Number:** E12532

**Delivery Method:** Federal Express

**Received Date:** 19 Sep 12

**Delivery Number:** 7989 9428 6020/8990 0008 3210

**Priority:** Yes

**Rush:** No

**Comparison** No

Lab Number 12-243	Sample Descriptions from Sample Jars	Spill	Source
1	ECN# 4443456 TG 01 CLEAN WATER SAMPLE 18SEP12 0920	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	ECN# 4443456 TG 01 ABSORBENT PAD SAMPLE 18SEP12 0931	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	ECN# 4443456 TG 03 EAST PEORIA CITY DISCHARGE PIPE 18SEP12 0939	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	ECN# 444356 TG 04 OILY WATER 18SEP12 0943	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	ECN* 4443456 TG 05 SHEEN NET 18SEP12 1002	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	ECN 4443456 TG 06 CATERPILLAR WASTE WATER 18SEP12 1032	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	ECN# 4443456 TG 07 CATERPILLAR OIL 18SEP12 1036	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	ECN 4443456 TG 08 CATERPILLAR TREATED WATER 18SEP12 1042	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	ECN 4443456 TG 09 EAST PEORIA TREATED WATER 18SEP12 1124	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10		<input type="checkbox"/>	<input type="checkbox"/>
<b>Remarks:</b> Sample 1 designated as 'Spill' for comparison purposes only.			

**Samples checked in by:** MST3 ZACHARY COTE *Zachary A. Cote* **Date:** 20 Sep 12

**Sample Custodian:** MST3 MICHELLE KOSMO *Michelle R Kosmo* **Date:** 20 Sep 12

**Supervisor of Analysis:** K. JUAIRE *Kristy Juare* **Date:** 21 Sep 12