



P.O. Box 515429  
Dallas, Texas 75075  
Ph: (972) 669-3390  
Fax: (469) 241-0896  
Email: oseicorp@msn.com  
Web: <http://www.osei.us>

## SUMMARY

### CHEVRON CRUDE OIL TEST

A client of OSEI requested that we perform a basic test on Chevron crude oil to show the potential for OSEI to bioremediate this oil.

A basic test where crude oil was placed on water and OSEI was applied was performed. The initial TPH count was 95,200 ppm. OSEI was applied on 1-18-91. The next test was performed 12 days later where the TPH had dropped to 7,720 ppm. Then 12 days later, the final test was performed and the TPH had dropped to 690 ppm.

This was a simple test to show the client that indeed OSEI would remediate the type of contamination on their site.

Steven R. Pedigo  
Chairman



**NATIONAL ENVIRONMENTAL TESTING, INC.**

NET Gulf Coast, Inc.  
Dallas Division  
1548 Valwood Parkway  
Suite 118  
Carrollton, TX 75006  
Tel: (214) 406-8100  
Fax: (214) 484-2969

**ANALYTICAL REPORT**

Mailing Address:  
P.O. Box 815006  
Dallas, TX 75381

**OSE**  
5545 Harvest Hill Lane  
Suite 1116  
Dallas, TX 75230

**02-04-91**  
Job No.: 903119  
Sample No: 157555-157556  
Page: 1

**Sample Description: SEE BELOW**

**Date Received: 01-18-91**

**157555 Chevron Crude – Sherman TX**  
Taken: 01-18-91

**Total Petroleum Hydrocarbon 952,000\* ug/g x density 95,200\***

**157556(1) Chevron Crude – Remediation Treated**  
Taken: 01-18-91

**Total Petroleum Hydrocarbon 77,100\* ug/g x density 7,720\***

**On January 30, 1991 sample was mixed and total TPH analyzed.**

**157556(2) Chevron Crude – Remediation Treated**  
Analyzed 2/12/91

**Total Petroleum Hydrocarbon 6,900\* ug/g x density 690\***

**On February 12, 1991 sample was mixed and total TPH was analyzed.**

**\*Freon Extract Discolored.**

**Donna L. Bowlin, Manager**  
Dallas Division

## STANDARD QUALITY CONTROL DATA REPORT

SAMPLE/PROJECT 157555-157556

PARAMETER	ANALYST	DATE	TIME	METHOD	EXTERNAL STANDARD	BLANK
TPH	DWT	013091	1000	E418.1	1880/1700	BDL
TPH	DWT	021291	1000	E418.1	2270/2440	BDL

### Method – Codes, i.e.

A – refers to APHA, Standard Methods for the Examination of Water and Wastewater, 16th Edition

E – refers to EPA’s 1979 Methods for Chemical Analysis of Water and Wastes – for Inorganic Analyses

E – refers to EPA’s 1979 Methods for Organic Chemical Analysis of Municipal and Industrial Wastes – for Organic Analyses

S – refers to SW846, 3rd edition

D – refers to ASTM

M – Method has been modified

\* – refers to Other Reference

**External Standard** – the Actual/Theoretical value for that batch of analysis. **Acceptance Criteria** – must be within 10% of the true value, except where EPA methods state otherwise.

**Blank** – samples are not blank corrected by the laboratory



P.O. Box 515429  
Dallas, Texas 75075  
Ph: (972) 669-3390  
Fax: (469) 241-0896  
Email: oseicorp@msn.com  
Web: <http://www.osei.us>

**“OIL SPILL EATER II”**

**HYDROCARBON REDUCTION TEST**

**FOR**  
**GAF INDUSTRIES**

**SUMMARY**

GAF Industries in Savannah, Georgia has a site contaminated with Venezuelan crude, #6 fuel oil and diesel fuel. The site has been contaminated for approximately 10 years. Sky Blue Chems designed a lab test that would mimic the actual cleanup plan. The contaminated site had approximately 85% aliphatic (heavy end) hydrocarbons, 6% aromatics (light ends) and 9% asphaltenes (weathered crude).

The initial hydrocarbon count was 100,000 mg/L. Oil Spill Eater II was mixed 50 to 1 with Savannah river water and applied at a 1 to 1 ratio to the hydrocarbons. In 96 hours all the aromatics and all the aliphatics were reduced to CO<sub>2</sub> and water. The weathered asphaltenes were the hardest to breakdown and consumed most of the testing time.

GAF asked us to demonstrate that we could mitigate their hydrocarbon contamination to less than 100 ppm so they could meet their NPDES discharge permit needs. This was a rigorous test for Oil Spill Eater II that proves the product is effective on light ends, heavy ends and weathered asphaltenes.

Steven R. Pedigo  
Chairman

LOG NO: SO-06430

Received: 24 MAY 90

CC: Pedigo/Franklin

REPORT OF RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES	SAMPLED BY
06430-1	GAF Waste Comp. Initial Test 6/1/90	Savannah Laboratories
PARAMETER	06430-1	
Petroleum Hydrocarbons (418.1), mg/kg	100000	
Percent Solids, %	56%	

CC: Pedigo/Franklin

REPORT OF RESULTS

Page 2

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
06430-2	GAF Waste Composite Second Test 6/8/90	Savannah Laboratories
06430-3	GAF Waste Composite Third Test 6/11/90	
06430-4	GAF Waste Composite Fourth Test 6/15/90	
PARAMETER	06430-2	06430-3 06430-4
Petroleum Hydrocarbons (418.1), mg/l	6800	5400 5000

*Laboratory locations in Savannah, GA • Mobile, AL • Tallahassee, FL • Deerfield Beach, FL*

LOG NO: SO-06430

Received: 24 MAY 90

CC: Pedigo/Franklin

REPORT OF RESULTS

Page 3

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY				
06430-5	GAF Waste Composite Fifth Test 6/22/90	Savannah Laboratories				
06430-6	GAF Waste Composite Sixth Test 6/26/90					
06430-7	GAF Waste Composite Seventh Test 6/29/90					
06430-8	GAF Waste Composite Eighth Test 7/3/90					
06430-9	GAF Waste Composite Ninth Test 7/6/90					
PARAMETER		06430-5	06430-6	06430-7	06430-8	06430-9
Petroleum Hydrocarbons (418.1), mg/l		2800	990	1500	1500	1100

Methods: 1) EPA SW-846.  
 2) Sky Blue Chem Procedure "Testing Proposal OSE Bioremediation of Hydrocarbons."  
 Note: Extraction protocol described in Method 2 followed. Verbal instructions received on 6/22/90 to maintain volume by replacing each 100 ml aliquot removed for analysis with 100 ml of river water. A total volume of 500 ml OSE was added in seven applications.

LOG NO: SO-06430

Received: 24 MAY 90

CC: Pedigo/Franklin

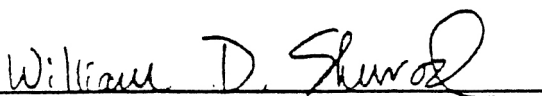
REPORT OF RESULTS

Page 4

LOG NO	SAMPLE DESCRIPTION . LIQUID SAMPLES	SAMPLED BY
06430-10	GAF Waste Composite Tenth Test 7/10/90	Savannah Laboratories
06430-11	GAF Waste Composite Eleventh Test 7/13/90	
06430-12	GAF Waste Composite Twelfth Test 7/17/90	
06430-13	GAF Waste Composite Thirteenth Test 7/20/90	

PARAMETER	06430-10	06430-11	06430-12	06430-13
Petroleum Hydrocarbons (418.1), mg/l	700	350	360	41

Methods: 1) EPA SW-846.  
 2) Sky Blue Chem Procedure "Testing Proposal OSE Bioremediation of Hydrocarbons."  
 Note: Extraction protocol described in Method 2 followed. Verbal instructions received on 6/22/90 to maintain volume by replacing each 100 ml aliquot removed for analysis with 100 ml of river water. A total volume of 500 ml OSE was added in seven applications.



William D. Sherrod