As part of the Horse Creek Stewardship Program, Mosaic Phosphates samples four locations once per month on Horse Creek in Hardee and Desoto Counties for a number of chemical and physical parameters. One of these parameters is total fatty acids. A “trigger level” of 0.5 mg/l was set for total fatty acids concentrations at Goose Pond Road in the Program.

Specific Sampling

A special sampling program was carried out on June 2, 2005. Total fatty acids concentrations were measured at Horse Creek at State Road 64, in Horse Creek at Goose Pond Road, and on Brushy Creek at State Road 64. Additionally a filtered sample was taken from Horse Creek at Goose Pond Road and a duplicate sample was taken there as well. The Horse Creek at State Road 64 and Brushy Creek at State Road 64 samples represent the two major sources of water that feed the Horse Creek Prairie and are downstream from any potential source of phosphate mining influence in that basin by any party. The Horse Creek at Goose Pond Road sample represents the outflow from the Horse Creek Prairie. The duplicate was taken as a quality control sample to help assess the precision of the fatty acid analysis. The filtered sample was taken to see which portion of any of the total fatty acid detected was dissolved and which portion was associated with substances that would be retained by a 0.45 micron filter.

No fatty acids were detected in any of the samples taken on June 2, 2005.

Discussion

With no fatty acids being detected in any of the samples, no conclusions can be drawn about any differences between the sites. Total fatty acids have never been detected above the method detection limit at any sampling station other than Goose Pond Road. If the fatty acids detected were coming from Mosaic’s (or any other) phosphate mining operation, it would follow that they would be in an even greater concentration at State Road 64 in whichever stream drains that particular facility (four miles closer to the mining activities and subject to less dilution).
ANALYTICAL REPORT

Job Number: 660-2321.1

Job Description: Horse Creek

For:
Mosaic Phosphates
P.O. Box 2000
Mulberry, FL 33860

Attention: Mr. Ross Franklin

Tina Fritz
Project Manager II
tfritz@stl-inc.com
06/15/2005

Methods: FDEP, DOH Certification #: E84282 These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report. The estimated uncertainty associated with these reported results is available upon request.
## METHOD SUMMARY

Client: Mosaic Phosphates

<table>
<thead>
<tr>
<th>Description</th>
<th>Method</th>
<th>Preparation Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matrix: Water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) Separatory Funnel Liquid-Liquid Extraction</td>
<td>SW846 8270C</td>
<td>SW846 3510C</td>
</tr>
</tbody>
</table>

## REFERENCES

## SAMPLE SUMMARY

Client: Mosaic Phosphates  
Job Number: 660-2321.1

<table>
<thead>
<tr>
<th>Lab Sample ID</th>
<th>Client Sample ID</th>
<th>Client Matrix</th>
<th>Date/Time Sampled</th>
<th>Date/Time Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>660-2321-1</td>
<td>HORSE CR@SR64</td>
<td>Water</td>
<td>06/02/2005 1055</td>
<td>06/03/2005 1030</td>
</tr>
<tr>
<td>660-2321-2</td>
<td>HORSE CR@GOOSE POND FILTERED</td>
<td>Water</td>
<td>06/02/2005 1120</td>
<td>06/03/2005 1030</td>
</tr>
<tr>
<td>660-2321-3</td>
<td>HORSE CR@GOOSE POND</td>
<td>Water</td>
<td>06/02/2005 1150</td>
<td>06/03/2005 1030</td>
</tr>
<tr>
<td>660-2321-4</td>
<td>BRUSHEY CR@SR64</td>
<td>Water</td>
<td>06/02/2005 1230</td>
<td>06/03/2005 1030</td>
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<tr>
<td>660-2321-5</td>
<td>DUPLICATE</td>
<td>Water</td>
<td>06/02/2005 0000</td>
<td>06/03/2005 1030</td>
</tr>
</tbody>
</table>
Analytical Data
Job Number: 660-2321.1

Client Sample ID: HORSE CR@SR64
Lab Sample ID: 660-2321-1
Client Matrix: Water

Date Sampled: 06/02/2005 1055
Date Received: 06/03/2005 1030

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Result (mg/L)</th>
<th>Qualifier</th>
<th>RL</th>
<th>PQL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fatty Acids</td>
<td>0.51</td>
<td>U</td>
<td>0.51</td>
<td>0.51</td>
</tr>
<tr>
<td>Surrogate</td>
<td>%Rec</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,4-Dichlorophenylacetic acid</td>
<td>72</td>
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<td></td>
<td></td>
</tr>
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</table>

Acceptance Limits: 13 - 170
Client: Mosaic Phosphates
Job Number: 660-2321.1

Client Sample ID: HORSE CR@GOOSE POND FILTERED
Lab Sample ID: 660-2321-2
Client Matrix: Water
Date Sampled: 06/02/2005 1120
Date Received: 06/03/2005 1030

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Result (mg/L)</th>
<th>Qualifier</th>
<th>RL</th>
<th>PQL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fatty Acids</td>
<td>0.56</td>
<td>U</td>
<td>0.56</td>
<td>0.56</td>
</tr>
<tr>
<td>Surrogate</td>
<td>%Rec</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,4-Dichlorophenylacetic acid</td>
<td>85</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Initial Weigh/Volume: 900 mL
Final Weigh/Volume: 1 mL
Injection Volume:
**Client:** Mosaic Phosphates  
**Client Sample ID:** HORSE CR@GOOSE POND  
**Lab Sample ID:** 660-2321-3  
**Client Matrix:** Water  
**Date Sampled:** 06/02/2005 1150  
**Date Received:** 06/03/2005 1030  
**Job Number:** 660-2321.1

---

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Result (mg/L)</th>
<th>Qualifier</th>
<th>RL</th>
<th>PQL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fatty Acids</td>
<td>0.52</td>
<td>U</td>
<td>0.52</td>
<td>0.52</td>
</tr>
<tr>
<td>Surrogate</td>
<td></td>
<td>%Rec</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,4-Dichlorophenylacetic acid</td>
<td>84</td>
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<td>13</td>
<td>170</td>
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**Method:** 8270C  
**Analysis Batch:** 660-8520  
**Instrument ID:** HP 6890/5973  
**Preparation:** 3510C  
**Prep Batch:** 660-8181  
**Lab File ID:** lBF13016.D  
**Dilution:** 1.0  
**Initial Weight/Volume:** 970 mL  
**Final Weight/Volume:** 1 mL  
**Date Analyzed:** 06/13/2005 1914  
**Date Prepared:** 06/08/2005 0830  
**Injection Volume:**
**Client:** Mosaic Phosphates  
**Client Sample ID:** BRUSHEY CR@SR64  
**Lab Sample ID:** 660-2321-4  
**Client Matrix:** Water  
**Job Number:** 660-2321.1  
**Date Sampled:** 06/02/2005 1230  
**Date Received:** 06/03/2005 1030

### Analytical Data

**8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)**

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Result (mg/L)</th>
<th>Qualifier</th>
<th>RL</th>
<th>PQL</th>
<th>%Rec</th>
<th>Acceptance Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fatty Acids</td>
<td>0.51</td>
<td>U</td>
<td>0.51</td>
<td>0.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surrogate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,4-Dichlorophenylacetic acid</td>
<td>81</td>
<td></td>
<td></td>
<td></td>
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<td>13 - 170</td>
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</tbody>
</table>

**Method:** 8270C  
**Analysis Batch:** 660-8520  
**Preparation:** 3510C  
**Prep Batch:** 660-8181  
**Dilution:** 1.0  
**Date Analyzed:** 06/13/2005 1943  
**Date Prepared:** 06/08/2005 0830  
**Instrument ID:** HP 6890/5973  
**Lab File ID:** 1BF13017.D  
**Initial Weight/Volume:** 990 mL  
**Final Weight/Volume:** 1 mL  
**Injection Volume:**
### Analytical Data

**Client:** Mosaic Phosphates  
**Job Number:** 660-2321.1

**Client Sample ID:** DUPLICATE  
**Lab Sample ID:** 660-2321-5  
**Client Matrix:** Water  
**Date Sampled:** 06/02/2005 0000  
**Date Received:** 06/03/2005 1030

---

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Result (mg/L)</th>
<th>Qualifier</th>
<th>RL</th>
<th>PQL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fatty Acids</td>
<td>0.51</td>
<td>U</td>
<td>0.51</td>
<td>0.51</td>
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</table>

<table>
<thead>
<tr>
<th>Surrogate</th>
<th>%Rec</th>
<th>Acceptance Limits</th>
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<tbody>
<tr>
<td>2,4-Dichlorophenylacetic acid</td>
<td>90</td>
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</table>
DATA REPORTING QUALIFIERS

Client: Mosaic Phosphates

Job Number: 660-2321.1

<table>
<thead>
<tr>
<th>Lab Section</th>
<th>Qualifier</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>GC/MS Semi VOA</td>
<td>U</td>
<td>Indicates that the compound was analyzed for but not detected</td>
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</table>
8270C  Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method Blank - Batch: 660-8181

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Result</th>
<th>Qualifier</th>
<th>RL</th>
<th>PQL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fatty Acids</td>
<td>0.50</td>
<td>U</td>
<td>0.50</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Laboratory Control Sample/ Control Duplicate - Batch: 660-8181

<table>
<thead>
<tr>
<th>Analyte</th>
<th>LCS</th>
<th>LCSD</th>
<th>Recovery Limits</th>
<th>RPD</th>
<th>RPD Limit</th>
<th>Qualifier</th>
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</thead>
<tbody>
<tr>
<td>Total Fatty Acids</td>
<td>85</td>
<td>108</td>
<td>40 - 150</td>
<td>24</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

Calculations are performed before rounding to avoid round-off errors in calculated results.
**ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD**

**STL**

**PROJECT REFERENCE**
- Horse Creek Esth Acids

**SAMPLE'S SIGNATURE**
- [Signature]

**P.O. NUMBER**
- 167251

**PROJECT NO.**
- [Project NO.]

**PROJECT LOCATION**
- (STATE) FL

**CONTRACT NO.**
- [Contract NO.]

**MATRIX TYPE**
- AQUEOUS (WATER)

**REQUIRED ANALYSIS**
- NOX-Esth Acids

<table>
<thead>
<tr>
<th>SAMPLE</th>
<th>DATE</th>
<th>TIME</th>
<th>SAMPLE IDENTIFICATION</th>
<th>COMPOSITION</th>
<th>NO. CONTAINERS</th>
<th>REMARKS</th>
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<tbody>
<tr>
<td>6-2-05</td>
<td>1055</td>
<td></td>
<td>Horse Creek@ SR 64</td>
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<td>2</td>
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</tr>
<tr>
<td>6-2-05</td>
<td>1120</td>
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<td>Horse Creek@ Goose Pond FILTERED</td>
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<td>2</td>
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<tr>
<td>6-2-05</td>
<td>1150</td>
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<td>Horse Creek@ Goose Pond</td>
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<tr>
<td>6-2-05</td>
<td>1230</td>
<td></td>
<td>Brusky Creek@ SR 64</td>
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</tr>
<tr>
<td>6-2-05</td>
<td></td>
<td></td>
<td>Duplicate</td>
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<td></td>
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</tr>
</tbody>
</table>

**RECEIVED BY: (SIGNATURE)**
- [Signature]

**DATE**
- 6-3-05

**TIME**
- 1030

**RECEIVED FOR LABORATORY BY: (SIGNATURE)**
- [Signature]

**DATE**
- 6-3-05

**TIME**
- 1030

**LABORATORY USE ONLY**
- 1

**LABORATORY REMARKS**
- [Remarks]

**SERIAL NUMBER**
- 19258

**STL Tampa**
- 6712 Benjamin Road, Suite 100
- Tampa, FL 33634

**WEBSITE:** www.stltnt.com

**PHONE:** (813) 885-7427

**Fax:** (813) 885-7049