2011 ANNUAL REPORT

REMEDIATION OF HYDROCARBON CONTAMINATION IN DOWNTOWN MANDAN, NORTH DAKOTA

February 21, 2012

LEGGETTE, BRASHEARS & GRAHAM, INC.
2011 Annual Report

- Where did we start in 2011?
- What did we get done in 2011?
- What has been spent so far?
- Where are we going in 2012?
What did we get done in 2011?

- Fourth full* year of system operation
  - *MPE suspended May to Aug due to flooding
- Focused system recovery in areas of remaining product
- Ceased MPE mode of remediation in areas where product no longer exists
- Modifications and maintenance activities to water treatment system to retain efficiency
  - Conducted physical well cleaning and rehabilitation activities to evaluate fouling and to increase system effectiveness
- Reduced RTO operating temperature to reduce operating cost
Remediation Recovery Totals

Liquid Recovery
- 69,973 (9,500 \text{ 2011}) gallons of Diesel

Vapor Recovery
- 32,581 (512 \text{ 2011}) gallons of solvents, gasoline and diesel
- 107,248 (6,380 \text{ 2011}) pounds of methane

Bioattenuation
- 215,379 (31,380 \text{ 2011}) gallons of diesel

TOTAL
- 2,337,148 (297,435 \text{ 2011}) pounds of hydrocarbons
Remediation Recovery Totals

In Gallons, up to January 4, 2012

Except Methane

Recovery (gallons)

Bioremediation
Free Product
Vapor - Diesel
Vapor - VOCs
Vapor - THC as Gas

Graph showing the cumulative recovery of various substances over time, covering from April 2006 to January 2012.
Remediation Recovery Totals

In Pounds, up to Jan 4, 2012
Methane Included

Recovery (pounds)
Methane Vapor - THC as Gas Vapor - VOCs Vapor - Diesel Free Product Bioremediation
What has been Spent?

Remediation

Planned + Extra Costs

Planned Tasks Cumulative

$13.5 Million

$17.2 Million

Overview of System Costs

- **Spent to-Date**
  - $17.2 M

- **Currently Authorized**
  - $18.5 M; $130K Outstanding
  - Closed Tasks; $1.2M
  - 2011 Operation and Maintenance (Under Budget)

- **LBG Mark Up Reductions**
  - 20 Tasks ≈ $205.7K
What has been Spent? Subcontractors

- 59 Total Subcontractors - $13.2M
  - Construction Services $9.2M
    - 18 subs – 13 In-State for $6.9M
  - Laboratory Services – $100K
    - 8 Subs – 3 In-State for $3K
  - Drilling - $1.0M
    - 9 Subs – 5 In-State for $726K
  - Specialized Remedial Eq/Svcs - $2.0M
    - 20 Subs, 9 In-State for $350K
  - Professional Services - $850K
    - 9 Subs – 7 In-State for $796K

- In-State Impact – $8.8M
Where Are We Going in 2012?

- System Operation and Maintenance
- System Efficiency Enhancements
- Targeted MPE Operation in areas of persistent free product.
- Continuation of System Shutdown in Completed Areas
- Site Strategy Plan Implementation
  - May lead to formal cessation of active remediation of portions of system where remediation is complete
Future Costs

- O&M
- System Modifications to Accommodate Development/Completion of Remediation
- Meetings, Project Management