



**OREGON DEPARTMENT OF TRANSPORTATION**

Research Unit  
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Salem, OR 97301

**SPR Quarterly Progress Report**  
April 1, 2009 through June 30, 2009

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Date July 6, 2009

**TO:** Technical Advisory Committee Members:

Bart Bretherton, ODOT  
Michele Eraut, FHWA  
Russell Frost, ODOT  
Don Lewis, DOGAMI  
Matthew Mabey, ODOT, Chair  
Jeff Moore, ODOT  
Richard Young, ODOT

**FRIENDS OF COMMITTEE:**

Jennie Armstrong, ODOT  
David Brooks, ODOT  
Kim Willoughby, WashDOT

**FROM:** Matthew Mabey, Research Coordinator; phone: (503) 986-2847

**1. Project**

Health Risk Exposure to Naturally Occurring Hazardous Minerals During Construction Activity  
SPR # 686

**2. Key Dates**

Start Date for ODOT: February 5, 2009  
Completion Date for ODOT: July 31, 2010

**3. Principal Investigator**

Clark Niewendorp  
Oregon Department of Geology and Mineral Industries  
800 NE Oregon Street #28  
Portland, OR 97232 Phone: (971)-673-1540

**4. Progress**

Health Risk Exposure to Naturally Occurring Hazardous Minerals During Construction Activity

- Task 1 has been completed. For this Task, an interim report was provided to the Technical Advisory Committee (TAC) with a comprehensive list of possible NOHM (Naturally Occurring Hazardous Materials) candidates. The list focused on those materials that due to prolonged exposure may cause or pose a substantial present or potential risk to human health.
- The TAC is reviewing the list but has yet to finalize it. Once that is done then work on Task 2 (Methods for Detecting NOHMs) can start.
- In the meantime, project work has jumped ahead to Task 3, data collection and integration. Matthew Mabey, Research Coordinator, recommended doing this. It is a way to keep the project from falling behind.
- For Task 3, MILO (Mineral Information Layer for Oregon) is the first database to be enhanced and updated. This database shows the distribution of mineralized zones, aggregate sources, and industrial minerals.
- For this reporting period, every 1:24,000-scale topographic map in the state was examined for mineral and aggregate sources and over 9,500 new sources were found and recorded in MILO. That now brings the number of source records contained in MILO to nearly 19,000.

## 5. **Problems**

- None

## 6. **Work Planned for Next Quarter**

- Further enhancement and updating of MILO will continue. Now work is focused on having the records from the USGS's MRDS (Mineral Resource Data System) reconciled with MILO in order to determine which records are missing from MILO. At this point, nearly 650 records from the MRDS have been added to MILO. Enhancement of MILO will also include the addition of obsidian location information and gemstone locations (many of Oregon's gemstones are related to mineralized areas).
- Complete the database with automatic attribution of data fields; write metadata for MILO.
- If the TAC has not reached a decision as to which NOHMs to include in the project, then work on Task 3 will continue. Work will turn to the synthesis and development of elemental geochemistry of volcanic rocks and sediments into a database called the Geoanalytical Information Layer for Oregon (GILO).

## 7. **Finances**

SPR Project Summary

<b>VENDOR</b>	<b>FY'09</b>	<b>FY'10</b>	<b>FY11</b>	<b>FY'12</b>	<b>TOTALS</b>
ORIGINAL BUDGET	\$ -	\$ -			\$ -
<b>REVISED BUDGET</b>	<b>\$ 42,000</b>	<b>\$ 120,000</b>	<b>\$ 18,000</b>		<b>\$ 180,000</b>
EXPENDITURES - VENDOR	\$ -	\$ -	\$ -	\$ -	\$ -
<b>BALANCE</b>	<b>\$ 42,000</b>	<b>\$ 120,000</b>	<b>\$ 18,000</b>	<b>\$ -</b>	<b>\$ 180,000</b>
<b>ODOT</b>	<b>FY'09</b>	<b>FY'10</b>	<b>FY11</b>	<b>FY'12</b>	<b>TOTALS</b>
ORIGINAL BUDGET	\$65,000	\$124,000	\$0		\$ 189,000
<b>REVISED BUDGET</b>	<b>\$10,824</b>	<b>\$3,000</b>	<b>\$3,000</b>		<b>\$ 16,824</b>
EXPENDITURES - ODOT	\$ 10,824	\$ -	\$ -	\$ -	\$ 10,824
<b>BALANCE</b>	<b>\$ -</b>	<b>\$ 3,000</b>	<b>\$ 3,000</b>	<b>\$ -</b>	<b>\$ 6,000</b>
<b>PROJECT</b>	<b>FY'09</b>	<b>FY'10</b>	<b>FY11</b>	<b>FY'12</b>	<b>TOTALS</b>
ORIGINAL BUDGET	\$ 65,000	\$ 124,000	\$ -	\$ -	\$ 189,000
<b>REVISED BUDGET</b>	<b>\$ 52,824</b>	<b>\$ 123,000</b>	<b>\$ 21,000</b>	<b>\$ -</b>	<b>\$ 196,824</b>
EXPENDITURES - PROJECT	\$ 10,824	\$ -	\$ -		\$ 10,824
<b>BALANCE</b>	<b>\$ 42,000</b>	<b>\$ 123,000</b>	<b>\$ 21,000</b>	<b>\$ -</b>	<b>\$ 186,000</b>