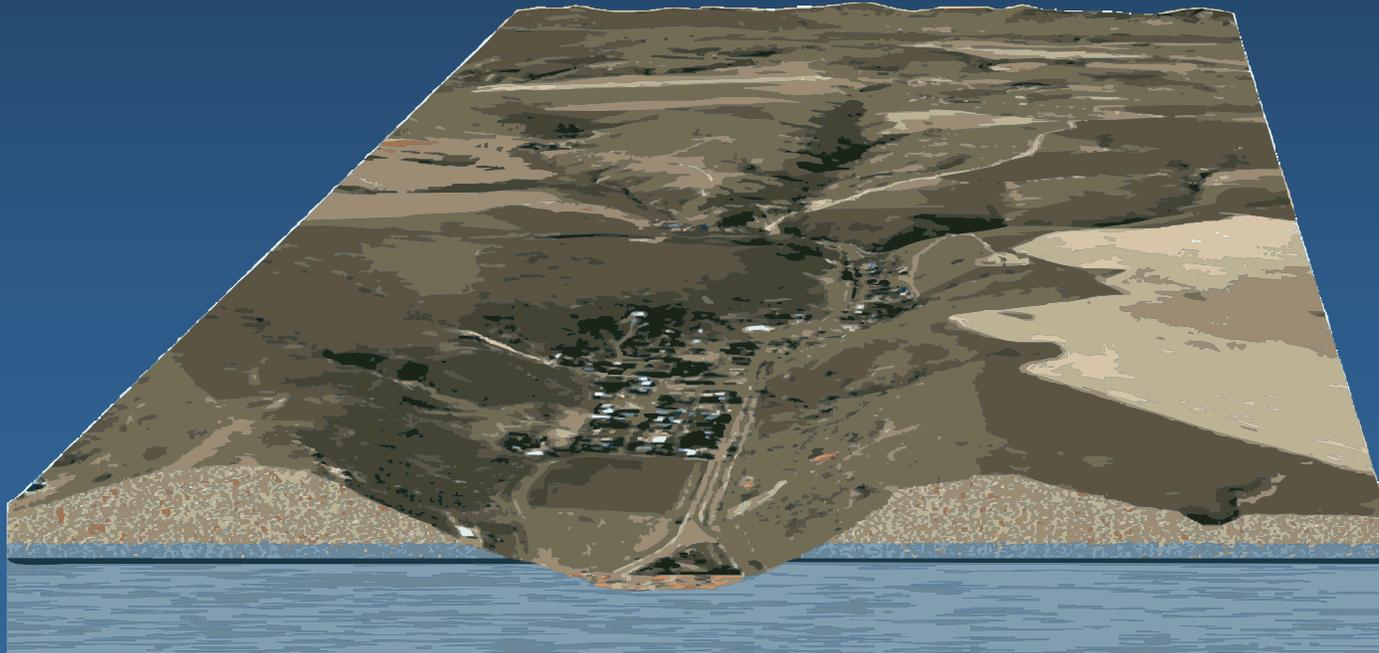


Public Meeting
Sand Coulee Public Water Supply
System Restoration
February 20, 2013



Introductions

- Sand Coulee Water District (SCWD)
- DEQ Abandoned Mine Lands Program (DEQ-AML)
- Hydrometrics, Inc.
- NCI Engineering

DEQ Abandoned Mine Lands Program



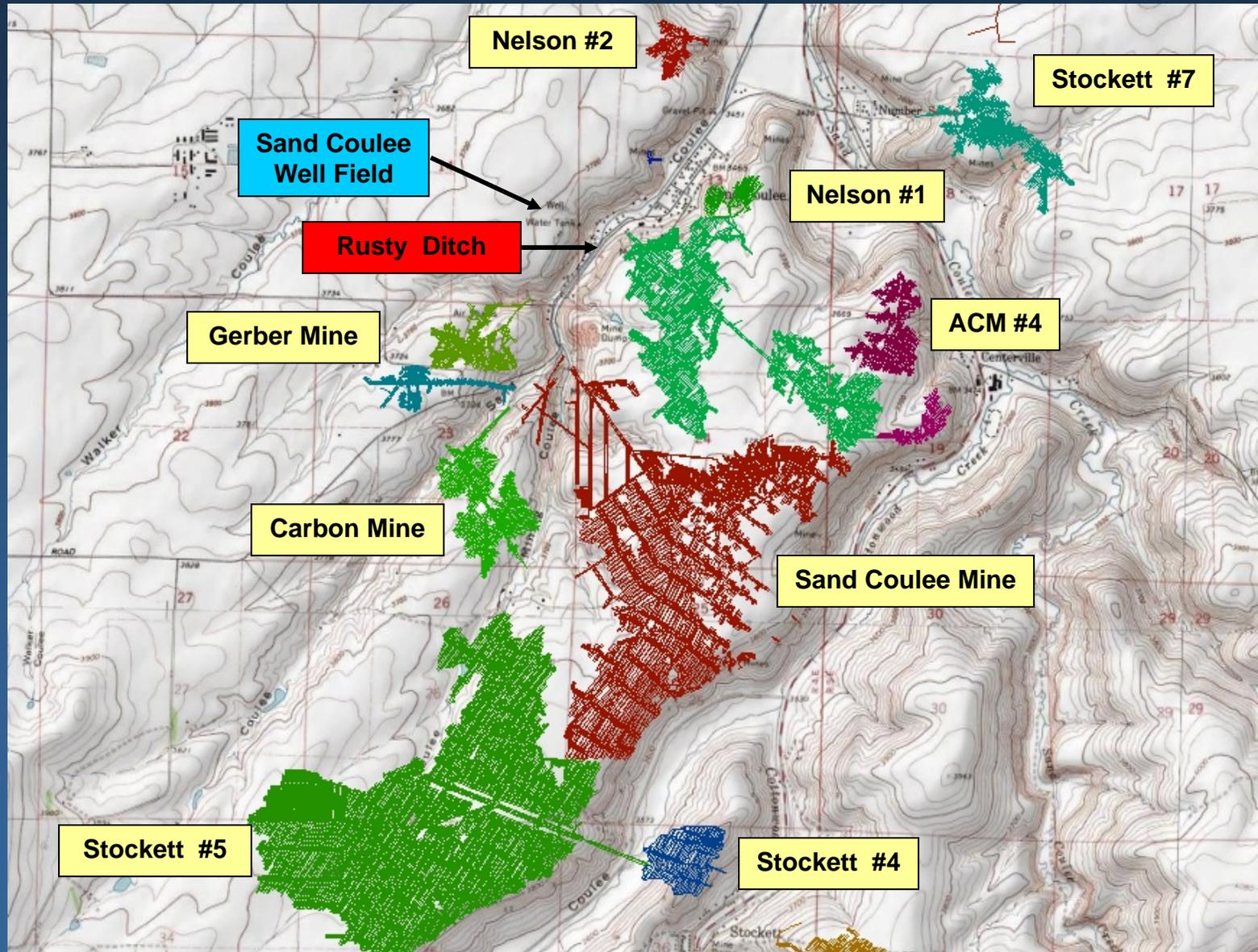


DEQ-AML Clogged Streams Project

Cleared 6 miles of Sand Coulee and Cottonwood Creeks: Summer 2012



Abandoned coal mines near Sand Coulee



Coal Mining Impacts to SCWD

- DEQ-AML informed of potable water issues during development of the SCWD Preliminary Engineering Report (NCI, 2010)
- The mines dewater the Kootenai sandstone which supplies the SCWD wells: average 60 gallons per minute discharge to Rusty Ditch
- Coal enters the water distribution system, likely during the repair of line breaks: testimony given at 2011 MT Legislature

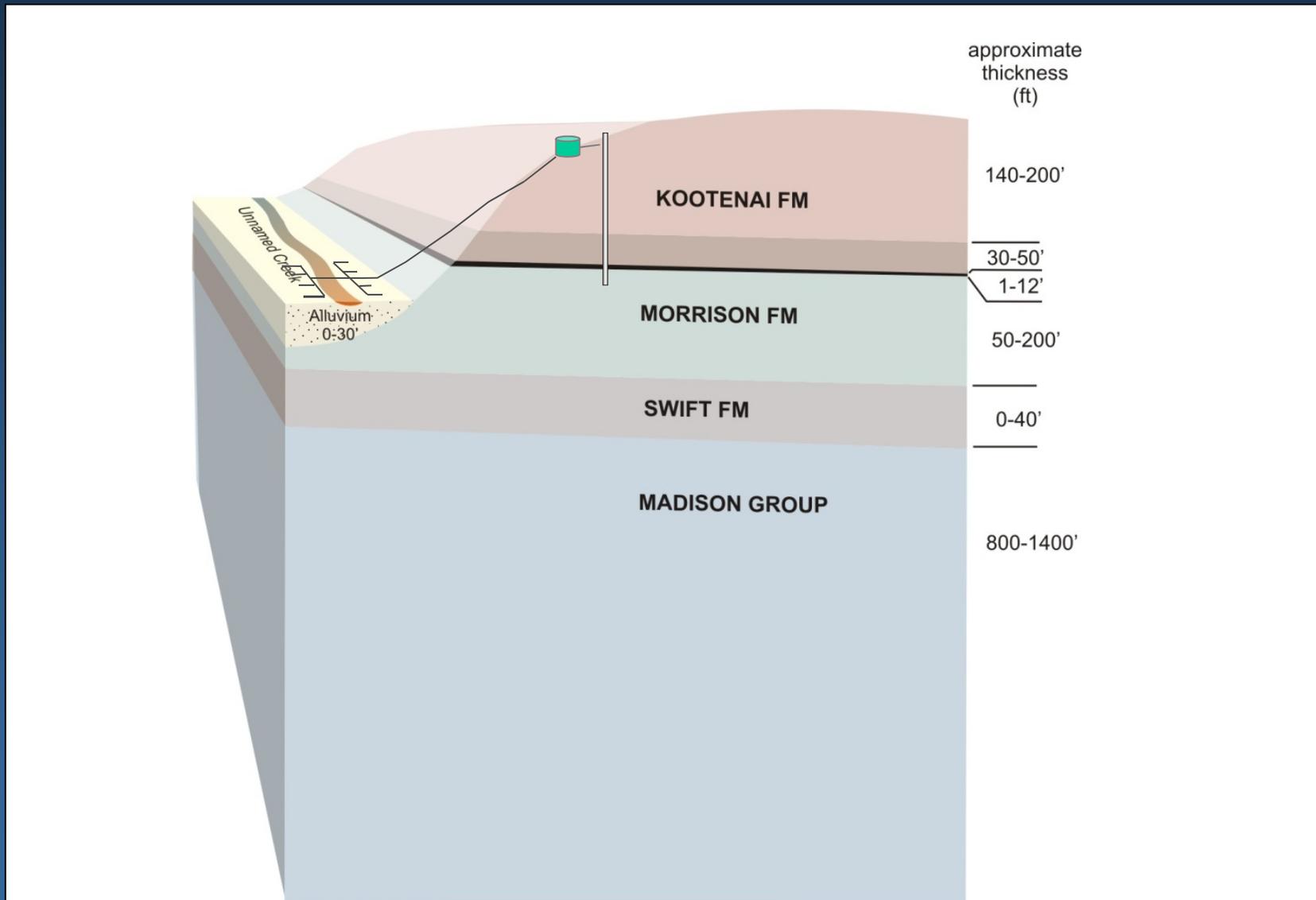
Sand Coulee Water System Restoration Project

- Develop reliable source of potable water
- Eliminate cycle of well drilling-water shortages-well drilling
- Develop necessary water rights for SCWD
- Replace water distribution lines and storage tank

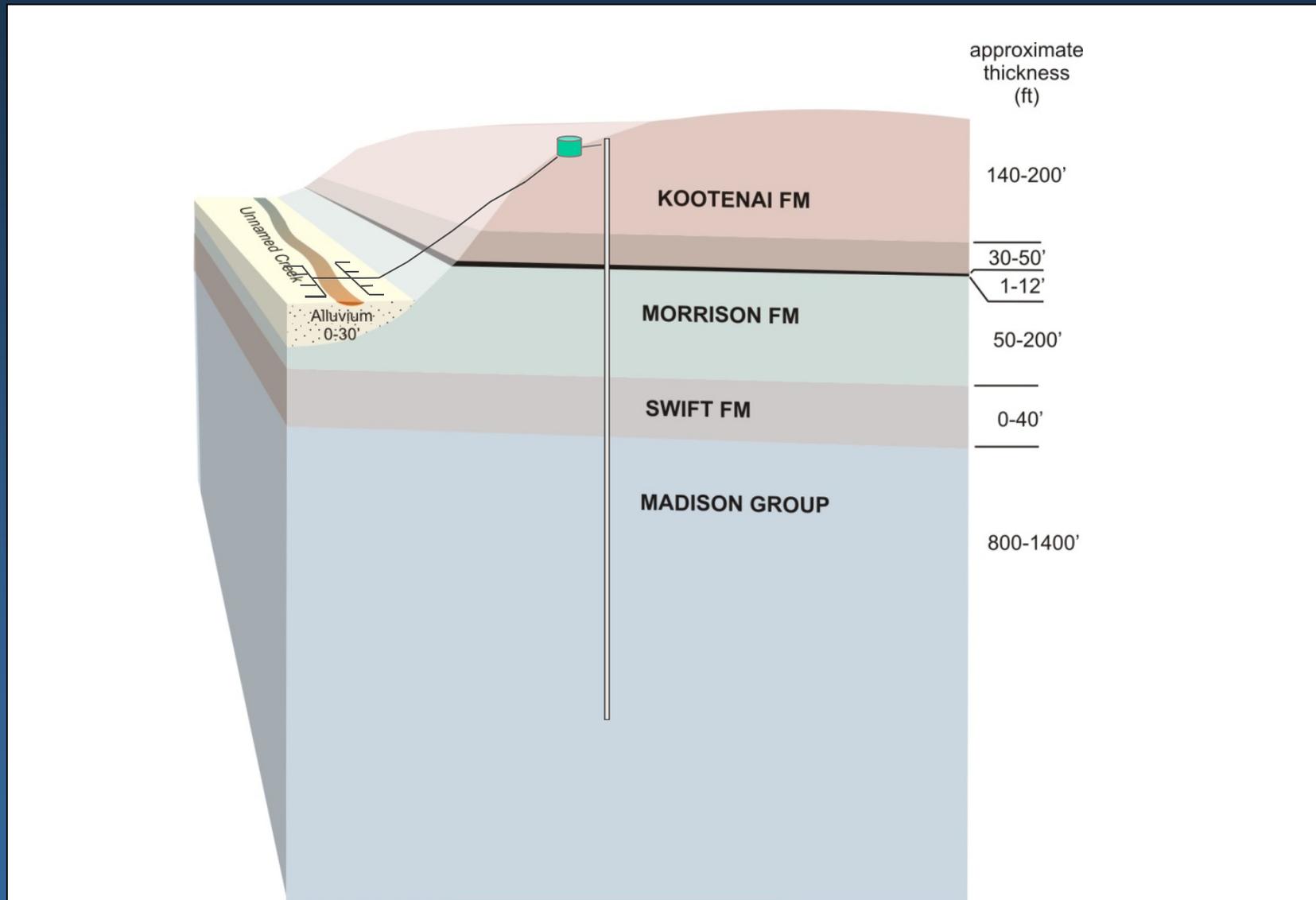
Potable Water Supply

- Water rights, water availability, and water quality investigations: 2010 to present
- Drilled and tested new 785 foot well (Well 5) into the Madison Limestone: spring 2012
- Testing indicates excellent productivity and water quality
- Obtained additional 10 acre-foot water right for SCWD
- Developing additional water rights in the Madison Limestone

Existing Kootenai Wells



Replace with two Madison Wells



SCWD Well 5

April - May 2012



Sand Coulee Water Distribution System

- Impacted by coal
- Over 50 years old
- High maintenance
- Undersized lines and tank
- Unmetered
- Non-compliant with current regulations

Design Objectives

- Meet fire flow requirements
- Eliminate entry of coal into system
- Meet current design, materials, and operation specifications
- Looped geometry where feasible
- Adequate valving and fire hydrants
- Workable system for SCWD

Implementation Objectives

- Minimize disruption of water supply - use temporary water delivery network
- Minimize disruption to property - connect to existing private service lines
- Maintain water connections for all existing users
- Provide service stubs for new users within SCWD

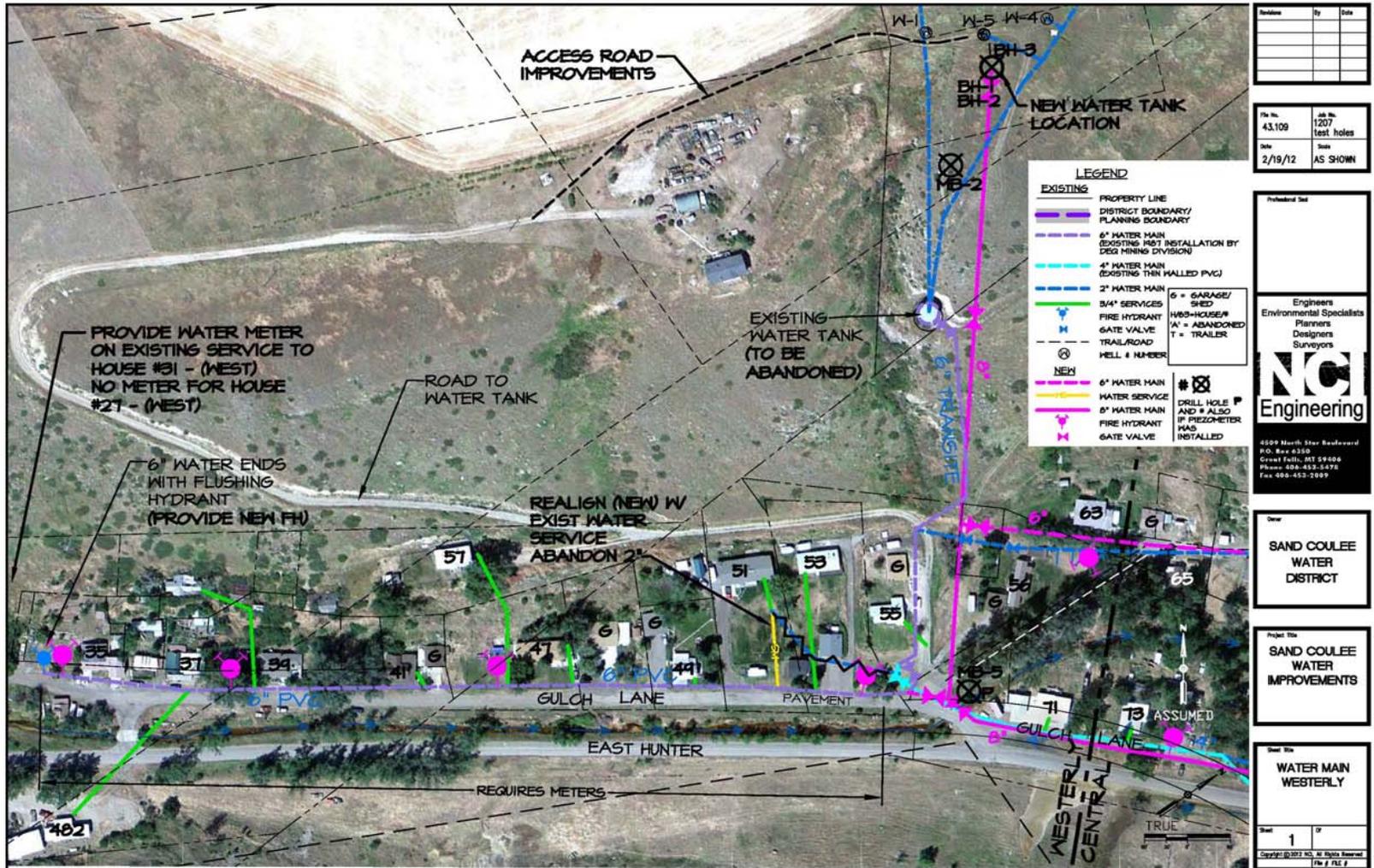
Tank Foundation Investigation



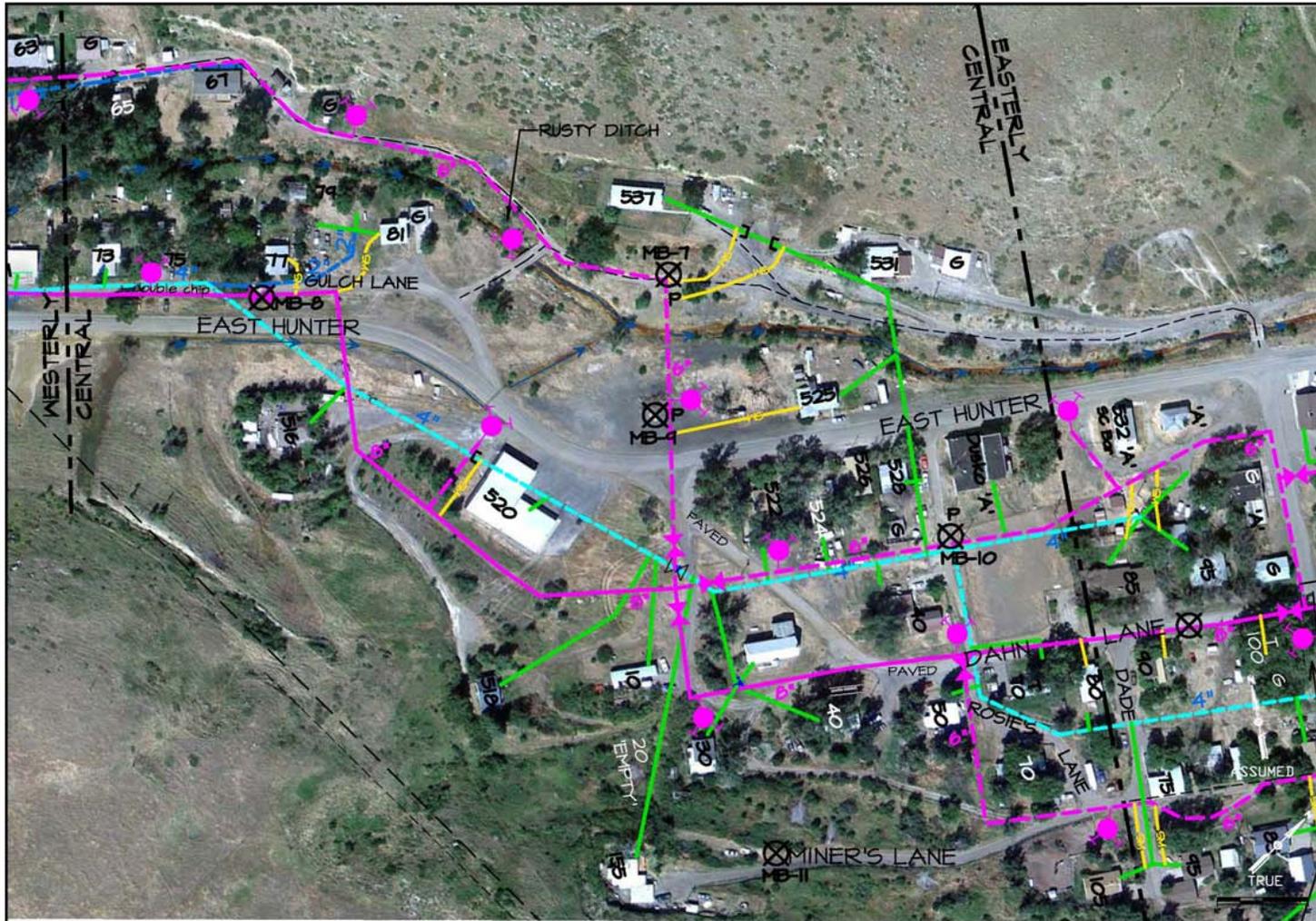
Waterline Route Soils Investigation



Proposed System Layout: West



Proposed System Layout: Central



Revisions	By	Date

File No. 43.109	Job No. 1207 test holes
Date 2/19/13	Scale AS SHOWN

Preferred Soil

Engineers
Environmental Specialists
Planners
Designers
Surveyors

NC
Engineering

4009 North Star Boulevard
P.O. Box 6350
Grand Falls, NC 28626
Phone: 406-452-5476
Fax: 406-452-2009

Owner

SAND COULEE
WATER
DISTRICT

Project Title

SAND COULEE
WATER
IMPROVEMENTS

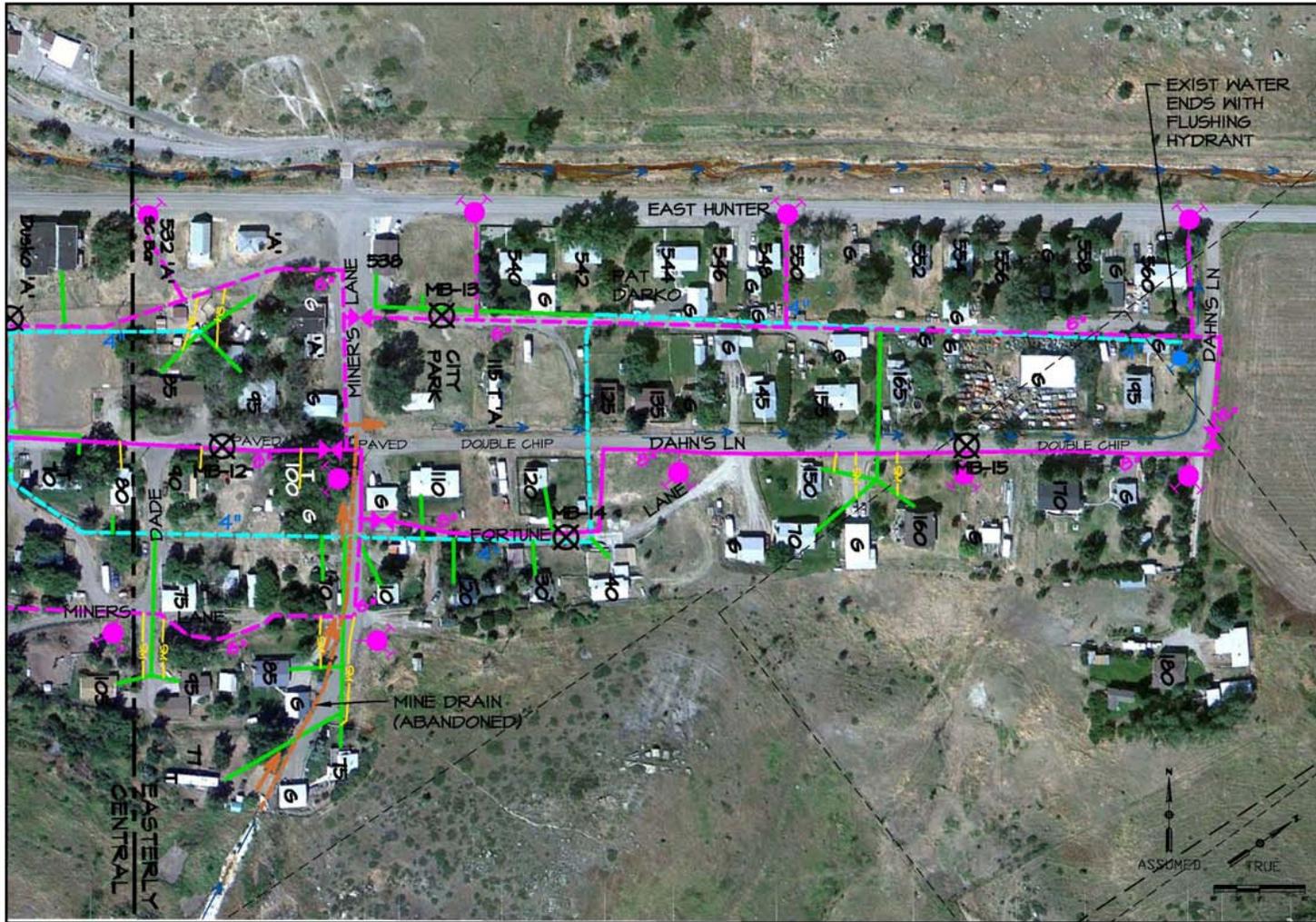
Sheet Title

WATER MAIN
CENTAL

Sheet	2	of	2
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File # PLE #

Proposed System Layout: East



Revision	By	Date

File No. 43.109	Job No. 1207 test holes
Date 2/19/13	Scale AS SHOWN

Preferred Soil

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Planners
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Surveyors

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Owner

**SAND COULEE
WATER
DISTRICT**

Project Title

**SAND COULEE
WATER
IMPROVEMENTS**

Sheet Title

**WATER MAIN
EASTERLY**

Sheet 3	of 37
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Proposed Well Field Layout



Revision	By	Date

File No.	Job No.
43.109	1207
Date	Scale
	AS SHOWN

Professional Seal

Engineers
Environmental Specialists
Planners
Designers
Surveyors



4509 North Star Boulevard
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Grand Falls, MI 59006
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Owner
**SAND COULEE
WATER
DISTRICT**

Project Title
**SAND COULEE
WATER
IMPROVEMENTS**

Sheet Title

Sheet 01 of 01
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File # 121.4

Projected 2012 Activities

- Complete private property surveys
- Survey properties adjoining the waterline locations
- Obtain consent for entry from land owners
- Waterline easements for the Sand Coulee Water District
- Develop final system design, specifications and bid documents
- Do the work

Project Funding

- Funded through grants from the U.S. Department of the Interior, Office of Surface Mining
- Funded through DNRC Reclamation and Development Grant

Comments

- Official comments must be submitted in writing to:

MDEQ Remediation Division

Attn: Tom Henderson

PO Box 200901

Helena, MT 59620

Or

Email: thenderson@mt.gov

Tom Henderson, MDEQ Project Manager

Phone (406) 841-5052

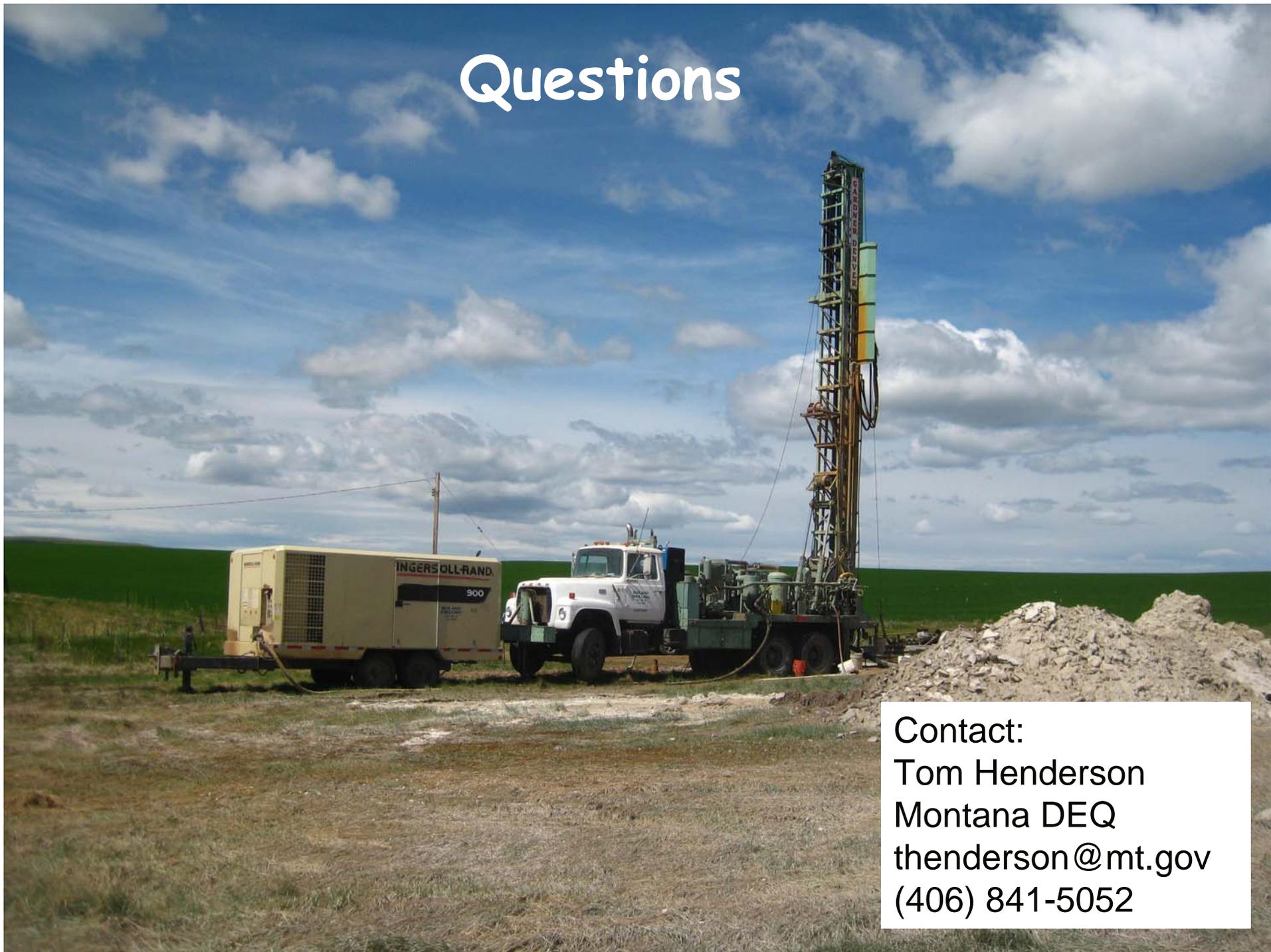
Comment Period

- February 20 through March 20, 2013

Project Documents

- Documents available online at:
<http://deq.mt.gov/AbandonedMines/CurrentProjects.mcp>
- Project name is Sand Coulee Water Supply Restoration
- Copies of all documents available at MDEQ, 1100 North Last Chance Gulch in Helena

Questions



Contact:
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Montana DEQ
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(406) 841-5052