

TO: Pinedale Anticline Work Group
FROM: Water Resources Task Group
DATE: 10 April 2009
SUBJECT: Minutes of March 17, 2009 Water TG Meeting

CALL TO ORDER:

The twelfth meeting of the Water Resources Task Group (TG) was held March 17, 2009 at the Pinedale BLM Office, Pinedale, WY. The meeting was called to order by Chair Jocelyn Moore at 10:10 a.m.

ATTENDANCE:

An attendance sheet was passed around the room. Participation is listed below:

TG MEMBERS:

Tony Gosar (Resident)	Jocelyn Moore (Resident)	Darrell Walker (SCCD)
Mike Kramer (Resident)	Daneka Ewert (Resident)	
By telephone:		
Jim Sewell (Shell Oil)	David Russell (Questar)	Leslie Schwabacher (Resident)

ABSENT MEMBERS:

Mark Thiesse (WDEQ)

BLM STAFF:

Dennis Doncaster	Merry Gamper	Chuck Otto
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CONSULTANTS/GOVT. AGENCY/PUBLIC/MEDIA:

Delsa Allen, Kathy Raper, SnoAnn Engler (SCCD)	K. Bill Clark (Geomatrix)
Linda Baker (Upper Green River Coalition)	Steven Crane (Roundup)
Belinda Salinas (Ultra)	Cathy Purves (Trout Unlimited)
Steve Snellgrove (URS Corp)	
Jeff Ingerson (Questar: by telephone beginning at 11am)	

SELF INTRODUCTIONS:

Chair Jocelyn Moore asked everyone present to introduce themselves.

MINUTES OF THE ELEVENTH TG MEETING:

The draft minutes were accepted as final. Motion made by Mike Kramer, seconded by Tony Gosar to approve minutes of Eleventh TG meeting held September 10, 2008. Motion approved.

OLD BUSINESS

BLM notification to Operators on non tested (high LEL) wells-

BLM sent ROD policy guidance letter, dated Nov. 19, 2008, to operators requiring that all water supply wells, not sampled due to LEL issues, be resampled. Nine wells were retested (Ultra:8,

Yates:1). DEQ and BLM received the data on these wells with detections not exceeding standards (per M. Gamper/BLM). Operators have been notified. Three wells with previous detections have been plugged. Retest results of 9 wells will be provided by SCCD in Sept/Oct 2009 report.

SEO well plugging protocol for wells with hydrocarbon detection-

Mark Thiesse was to discuss protocol with SEO but was ill and not able to attend WRTG meeting. Jocelyn will discuss Wyoming State Engineers Office (SEO) protocol with Mark Thiesse and email information to the task group.

Additional SCCD surface water sampling site-

As NF1 is too far north of Anticline to be a valid baseline, a new surface water sampling site was identified. The new SCCD sampling site is NF80. It is located north of NF4, below golf course, below confluence of Duck Creek and Willow Creek, and not far from Schwabacher and Kramer property. Discussion ensued on type of testing, i.e. bug, or bug and chemistry. Mike Kramer motioned to test for both bugs and chemistry. Jim Sewell seconded, motion passed unanimously. Recommendation must go to PAWG for review/recommendation to BLM.

NEW BUSINESS

SCCD Overview and Proposed Revision of Sampling and Analysis Plan (SAP)-

(See Attachment 1)

General comments:

Delsa Allen, SCCD, reviewed existing SAP with Task Group members. Much discussion ensued.

- Remove reference to ASTM Standard D4448-01 as this standard is for monitoring wells, not necessarily industrial or domestic wells. There is not a federal guideline at present that would be well suited for reference.
- The question was raised as to the original purpose of these well analyses. The answer was draw down and water quality. A detection is not necessarily contamination; monitoring is set up for detection and draw down of well water levels.
- 2.2.2 Sampling Frequency – discussion to correct text; (TPH-GRO, EPA method 8015) – should be (TPH-GRO/DRO, EPA method 8015); SCCD samples for these THEN tests for BTEX if detects are found.
- 2.3.3 Sampling Protocol; change “will be initially sampled” to “annually sampled” for general water quality.
- 2.3.4 Sample Collection Method: add LEL Protocol reference here; also continue to use Alconox as a cleaner
- BLM requested that WRTG not modify the SAP much as the monitoring program is heading into a whole new assessment.
- Geomatrix will survey existing well depths starting April 6, 2009; will take approx 15 to 20 days to accomplish; have already hired surveyors for job.
- Regarding new and proposed development- if the intent to drill timing allows for it (based on submission and timing of well sampling event), a proposed development area can be tested if it is in conjunction with SCCD testing.

- 2.4.4 Report Generation; The annual report is supposed to include a cumulative trend analysis report, particularly regarding well chemistry, i.e. multi-year well by well analysis to compare changes, proximity and such. Geomatrix study was the first step in framework, and to show gaps. (Table E-3) Where would the funding come from to do this? Operators believe Geomatrix report hits requirement for trend analysis as it compiles all existing data. Should this be brought to PAWG? Was this data forwarded to WRDS? (Mark Thiesse?) BLM suggested Task Group move to accept Geomatrix report as trend analysis.
- 2.4.4. SCCD reports to well owner/operators, i.e. analysis information goes to operators when a well has a detection. Once well owner/operator is informed, they are responsible to inform BLM and DEQ. SCCD provides water supply well monitoring reports annually to WRTG which reviews and provides recommendations to PAWG. Reports are posted on BLM website for public review. DEQ does VRP (Voluntary Remediation Program). The well data is listed in Geomatrix report but doesn't provide analysis of changes in water quality over time.
- 2.5.1 SCCD report to clarify when/where a portable pump is used.
- SCCD will start ground water monitoring in May. General consensus was to continue 2009 testing in the same manner as previous year.
- Operators noted if a hydrocarbon detection is found, operators will resample the well but send the samples to a different testing laboratory, also EPA certified lab.

ADJOURNMENT: WRTG adjourned for lunch from 12:05 p.m. to 1:15 p.m.

SCCD Monitoring Manual

Manual and Protocol is an update to the original HydroGeo Manual and Protocol.

(See Attachment 2)

General comments:

SCCD discussed current monitoring procedures with WRTG members. Discussion ensued: Potential exists for cross contamination that M&P does not necessarily alleviate. Using cable, for example can create cross contamination. SCCD has been looking into fishing line or slick line as opposed to braided cable for lifting the bailer.

When testing "parts per billion", a very small amount can show up as a detect.

BLM noted that a set of credible wells will be selected for the new sampling program which could entail newly installed water wells and a subset of water wells already being sampled by SCCD.

The sampling season should include ½ of wells sampled in fall and ½ of wells in spring.

Does the WRTG need to reach consensus on sampling/monitoring protocol document prior to reporting changes to PAWG?

Consensus: There will be consensus prior to sampling by SCCD. BLM will bring guidance to the group, Jocelyn will bring minutes from the first/second WRTG meetings (2005) where the BLM state representative gave direction for consensus. Otherwise, consensus will be reached through email from the members. Concern was voiced by Linda Baker (UGRC) that the public is not involved in decisions on recommendation if emails are not shared with the public.

Geomatrix Presentation (K. Bill Clark, Hydrologist)

K.Bill gave background of GEOMATRIX involvement: they completed a Hydrogeologic Conceptual Model last year referenced in the SEIS; studied existing discharge and recharge areas, etc and noted the data gaps. Per the ROD, Pg. 29, the Agencies and operators were to create an Interim Groundwater Monitoring Pollution Prevention Plan, referred to as IAMM. Geomatrix is not monitoring the wells, but simply collecting initial data from wells, and developing a groundwater pollution prevention and mitigation plan which DEQ, BLM, Operators will finalize within 6 months of report. During field season, Geomatrix will be collecting from study wells. This data won't be duplicative, but may potentially be simultaneous.

Several figurative illustrations were given to the group including: Project Organization and Flow Chart, Estimated Project Schedule, Proposed Study Well Locations, and Proposed Surface Water Study Locations. Geomatrix is scheduled to start April 6th, surveyors can survey 20 wells per day, roughly three weeks to finish. They will need SCCD help in gaining access to private property. BLM proposed setting up meeting with SCCD, BLM and Geomatrix to facilitate this.

As part of the Groundwater Characterization effort, an Initial Vulnerability Assessment, Credible Well Identification and a Data Gaps Study were completed. In support of the Identification and Recommendation of Mitigation Measures effort a Hydrocarbon Investigation and Contaminant Source Evaluation were completed. A Monitoring Program Augmentation task was also finished. These three efforts were combined to form the "Draft Final Groundwater/Aquifer Pollution Prevention, Mitigation and Monitoring Plan". (The Plan)

The Plan was finalized after several back and forth discussions in December of 2008. The "how to" of the Plans of Study drove the individual tasks.

Credible Wells-

Criteria was established for suitable wells.

Objectives included quality, flow, spatial distribution, strata, construction, use, and security.

Wells were inventoried. 386 wells were identified, 221 were industrial (165 domestic or stock). 188 wells ran through test criteria, but only 70 have lithographic records. None were deemed suitable for water quality testing, flow or interconnectivity.

Sublette County has a wells database, Geomatrix is populating this with the new information.

Initial Vulnerability Assessment-

Identified areas where groundwater is most vulnerable to contamination.

The new data does not significantly alter the results of the 1994 study.

Eight tasks were designated in this assessment:

Gain/loss characterization	Data collection system for water graphs
Flow/quality of springs	Connection/isolation
Water elevation data	Refine concept model
Ground/surface water interaction	Hydraulic Properties

SCCD will share site information to have "leg work" for Geomatrix

Bids have been requested from well drillers. No wells are installed in river alluvium. Wells and piezometers will be installed.

Plan of Study for Monitoring Program Augmentation-

- Data collection for more complete potentiometric maps

- Baseline water quality for all new wells

- Work with operators and BLM to determine water withdrawal rates

Low Level Petroleum Plan of Study-

- Identify potential sources of low level petroleum hydrocarbons

- Collect new data

- Identify data gaps

- Water Task Group Chairperson requested more WTG participation in Plan development.

K.Bill noted they hope to install 50 monitoring water wells in summer of 2009.

Schwabacher asked if BLM was responsible for keeping public out of IAMM process. BLM noted that process was delineated in Sept 2008 Record of Decision.

Purves asked if GEOMATRIX Plans of Study will be available for public review. BLM will have these on BLM website following approval.

OTHER BUSINESS & PUBLIC COMMENT:

Schwabacher would like to include reserve pits in groundwater testing and have GEOMATRIX create a map of closed reserved pits. BLM noted that every oil and gas well has a reserve pit and the records of closed pits are in the well files.

Linda Baker requests opportunity for public comment during meeting. Request copies of documents so public can follow. PAWG will give public an opportunity for comment after each topic discussion so can the WRTG do the same? *** Add as agenda for next meeting***

Kramer would have liked to have had GEOMATRIX report five years ago.

SUMMARY AND ADJOURNMENT:

The timeframe for the next meeting was discussed. It was agreed that we should meet again in Fall 2009 after the SCCD sampling results are available. Motion to adjourn by Tony Gosar, seconded by Mike Kramer. Motion approved and meeting was adjourned at 4:00 p.m.

Respectively Submitted:

Jocelyn Moore, Water Task Group Chair

Attchs: SCCD SAP, SCCD Manual and Protocol