

Daily Report 02/07/14

Tetra Tech

Directive #1 - Indoor Air

- Draft Concept Plan for phased approach to indoor air monitoring plus installation of alarm systems and ventilation systems was submitted to DNR on 12/13/12 for comments; the detailed Work Plan was submitted to DNR on 1/14/13 for comments.
- Installed a total of 91 detectors at 42 locations. No positive alarms have occurred to date for either % LEL or H2S.
- A total of ten monitoring pairs and associated transmitters have been provided to Assumption Parish, at their request.
- Continued daily monitor calibration.
- Completed visual inspection and maintenance of the under slab ventilation systems. Liquids found in the systems were removed and transported to the storage tank located at ORW-22.

Plan for today:

- Continue monitor calibration.
- Continue ventilation system operation, maintenance, and monitoring.

<u>Directive #2 – Additional Relief Wells and Directive #3 – Overall Plan as Corrected</u>

- Met with DNR/Shaw on 1/24/13; reached agreement on well designs.
- Radius of Influence (ROI) wells are installed at well pads ORW-5 and ORW-9.
- The field portion of ROI testing was completed July 21st. Report is being finalized.
- Began 30-day pump test at ORW-38. Initial results revealed ORW-38 produces more water with less drawdown than previous well pumping episodes at the site. After one hour at the full discharge of 12.6 gpm, the drawdown was 20.2 ft; after 8 hours the drawdown was 21.0 ft, with the same flow rate. No gas was produced. The original plan, which was based on greater drawdown and gas production, involved completing a series of constant rate step tests. Since no gas was generated, these tests were not initiated. Today, flow conditions will be varied to see if gas can be produced from the well. The first step will be to stop the pump; after most of the groundwater recovery has occurred, the well head will then be shut-in for an hour. Then groundwater will be pumped out at 1 gpm for several hours. Next steps will be determined based on the results of these steps.
- WHE transferred two 2,700 gal vacuum truck loads of pump test purge water to the sinkhole outfall.
- WHE sonic crew constructed ORW-58. Set well screen from 120 to 124 ft bgs (total depth: 149 ft bgs).
- Miller Engineers surveyed well locations ORW-55 and 56; PVW 01 through 05; and CPT-125W and 126W.



- WHE completed plugging and abandonment (P&A) activities at ORW-7. Used a tremie pipe to lift the sand filter pack out of the well (using 1000 gallons of potable water); removed the drop tubing and sealed the well.
- Welded 1000 feet of 2-inch HDPE pipe and completed gas line connections to Flare 2. Shut down Flare 2 for approximately 1.5 hours during this work.
- Rock's Trucking placed 450 cubic yards of sand on the access road to ORW-57. The road was graded and compacted with a smooth-drum roller.

Plan for today:

- Complete piping installation to ORW-57 location.
- Continue pump test of ORW-38; vary flow conditions to see if gas can be produced from this well.
- WHE complete grouting ORW-58 to the surface; install well head.

Directive #4 - Operation of All Wells

- Flares #2, #3, #4, #5, and #6 are operating. One additional flare, and a trailer-mounted backup flare, are available as needed. TBC Flare #1 will require insulation repair prior to being put into service.
- Well work overs are ongoing for all low-producing and non-flowing wells.
- Barton meters have been installed on flowing wells; performed routine maintenance.
- Performed daily flare operation and maintenance.
- Performed daily relief well operation and maintenance.
- Increased choke position at ORW-55; changed orifice plate from 1/16-inch to 1/8-inch.
- Decreased choke position at ORW-48, 50, 54.

Plan for today:

- Complete daily flare, Barton meter, generator, and compressor operation and maintenance activities.
- Continue well dewatering.

Directive #5 – Sinkhole Containment

- Submitted original sinkhole containment design in Joint Application to OCM and COE on 2/14/13.
- A pre-construction meeting for the original containment system was held on-site on 3/14/13 for TBC and contractors.
- Construction of the original sinkhole containment system began 4/1/13; construction was completed 9/23/13.



- During late October 2013 and mid-December 2013, cracks and a drop in elevation occurred along the southern levee of the original containment system. Increased seismic activity was also noted at these times.
- During the week of January 6th, 2014 a new Emergency Use Authorization was submitted and approved for constructing a new southern levee approximately 500 to 1300 feet south of the southern levee of the original containment system.
- Completed visual inspection of the existing containment levee.
- Measured surface elevations of water in the Bayou and inside the containment area using laser sight: Bayou water elevation: 1.0 feet above mean sea level (AMSL); Containment water elevation: 0.5 ft AMSL.

New South Containment Levee

- Construction of the new south containment levee began on 1/8/2014. Tree clearing for this new levee was completed January 15, 2014. The construction of the new south levee is anticipated to be completed in April 2014.
- Rock's Trucking imported 510 cubic yards of sand to the site: 60 cubic yards were left in the stockpile at pad 10; the remainder were placed on the access road to ORW-57 as described above.
- Rock's Trucking used articulating dump trucks to place sand from the rig road stockpile on the
 section of new south containment levee extending from the west existing containment levee. The
 material was used to build up the existing roadway. The total length of new southern
 containment levee completed to date remains approximately 3122 linear feet.
- The CSSI swamp excavator cleared approximately 600 linear feet of trees between Pads 9 and 10.

Plan for today:

Rock's Trucking continue construction of the new south containment levee.