



Review of 2014 2nd Semi-annual Groundwater Monitoring Report for J.E.D. Solid Waste Management Facility

Review Date: 3/9/15	Reviewed By: Allen Rainey, Environmental Specialist III	WACS Facility ID #: 89544
Facility Name: J.E.D. Solid Waste Management Facility		
Monitoring Period: November 2014		
Type: Routine	Facility Class Types: Class I, Construction & Demolition Debris	
Report Date: 2/6/15	Received Date: 2/6/15	WACS Upload Date: 2/9/15
Prepared By: Geosyntec Consultants	Submitted By: ----	
Report Title: 21 th Semi-annual Water Quality Monitoring Report		

Review Details

Summary

- There are no actions needed to protect groundwater.
- The Department considers evaluation monitoring to be concluded.

Parameter Exceedances

- Benzene standard (1 µg/L) was exceeded in groundwater wells as follows.

Well ID	Well Type	Concentration (µg/L)
MW-1A	Detection	2.7
MW-3A	Detection	5.2
MW-4A	Detection	2.9
MW-6A	Detection	3
MW-8A	Detection	3.7
MW-9A	Detection	8.5
MW-10A	Detection	7.7
MW-11A	Detection	10
MW-12A	Detection	6
MW-13A	Detection	3.4
MW-1B	Detection	2
MW-3B	Detection	2.4

- Lead standard (15 µg/L) was exceeded in newly installed detection wells MW-25B and MW-26B at 18.4 µg/L and 34.7 µg/L, respectively. Those wells had turbidity values that exceeded 20 NTUs. The sampling team used a 1 µm filter size at the wells. Dissolved lead concentrations were below the lead standard.
- Beryllium standard (4 µg/L) was exceeded in detection well MW-8B at 4.54 µg/L, but the report does not acknowledge the exceedance. The last beryllium exceedance in groundwater at this facility occurred in July 2004 in well MW-7A at 5.1 µg/L. The Department will watch for increasing trends in beryllium concentrations.
- Sodium standard (160 mg/L) was exceeded in detection well MW-1A at 290 mg/L.
- Chloride standard (250 mg/L) was exceeded in detection well MW-1A at 518 mg/L.
- Ammonia 62-777 GCTL (2.8 mg/L) was exceeded in 8 A-zone groundwater wells and 3 B-zone groundwater wells. A-zone wells MW-5A, MW-9A, MW-10A, and MW-11A have a permit-established level of 10 mg/L; none of those four wells exceeded that level.
- Total dissolved solids standard (500 mg/L) was exceeded in 5 A-zone groundwater wells and 8 B-zone groundwater wells.
- Iron standard (0.3 mg/L) was exceeded in all of the A-zone and B-zone groundwater wells.
- Dissolved iron was exceeded the iron standard in newly installed detection wells MW-25B and MW-26B at 1,710 and 1,720 µg/L respectively. Both wells had turbidity values that exceeded 20 NTUs. The sampling team used a 1 µm filter size at the wells.
- pH in all the groundwater wells was below the range of 6.5 – 8.

Notations

- Only newly installed wells MW-25B and MW-26B had turbidity values that exceeded 20 NTUs. However, pdf page 8 of the report states that most of the intermediate and deep wells had turbidity values greater than 20 NTUs. The deep wells were not sampled during this monitoring period.
- The report concludes on pdf page 18 that the “evaluation monitoring program is complete.” The Department agrees.
- Both surface water locations were dry.

<ul style="list-style-type: none"> • Since the May 2104 monitoring period, the facility installed six new wells (clusters MW-24, MW-25, and MW-26) within two groundwater zones on the south side of cells 12 and 13. • From August 2004 to September 2010, beryllium surface water standard (0.13 µg/L annual average) exceedances occurred in surface water locations SW-3 and SW-4 at concentrations ranging from 0.30 to 0.74 µg/L. All those concentrations had a “U” qualifier, which means that the laboratory’s method detection limit was too high. • There were no arsenic groundwater standard exceedances, as had occurred during the May 2014 monitoring period. • The facility’s July 2014 Technical Report appropriately addressed sodium and chloride exceedances in well MW-1A. • Based on Department policy, no further investigation for ammonia is necessary. • On 5/14/14, the Department granted approval to end total phenols analyses. 		
Purging Completion		
Dissolved oxygen ≤ 20% saturation? NO *	Turbidity ≤ 20 NTUs? NO ^b	
If no, ± 0.2 mg/L or readings are within 10%? NO	If no, ± 5 NTUs or readings are within 10%? N/A	
Temperature ± 0.2° C? YES	pH ± 0.2 standard units? YES	
Specific conductance ± 5% of reading? YES		
* one or more of last three readings > 20% saturation in wells MW-5B, MW-6B, & 10B		
^b readings > 20 NTUs in wells MW-25B & MW-26B		
Sampling and Analysis		
Sampling dates: Nov. 6, 10, 11, 12, 13	Last lab analysis date: 12/3/14	
# of active groundwater monitoring locations: 40	# of active surface water monitoring locations: 2	
Initial sampling device: peristaltic & submersible pumps	Re-sampling device: N/A	
All groundwater and surface water sampling points sampled? NO ^A	All analyses performed? YES	
Trip blanks? YES	Field or equipment blanks? YES	
Lab certified under National Environmental Laboratory Accreditation Program? YES		
Unionized ammonia analysis? N/A	Phenols analysis? N/A	Unfiltered sample? NO ^x
^A both surface water locations were dry		
^x samples for wells MW-25B and MW-26B were filtered using a µm filter size		
Monitoring Plan Implementation Schedule Reporting Requirements		
Revision Date: N/A	Effective Date: 1/23/14	Permit: SO49-0199726-022
Notification made within 14 days of sampling? YES		
Cover letter? NO		
Ground Water Monitoring Report, DEP Form 62-520.900(2) (or equivalent)? YES		Certification Date: 1/12/15
Summary of exceedances & sampling issues? YES		
Groundwater contour maps? YES ^a	Contour maps signed and sealed? YES	
Water levels & water elevation table? YES	Water level measurements made within one-day period? YES	
Groundwater Sampling Logs, DEP Form FD 9000-24? YES		
Chain of custody forms? YES		
Conclusions and recommendations? YES		
Lab and field EDD files named correctly (89544_201411_swldd.txt & 89544_201411_swfdd.txt)? YES		
Report named correctly (25473_201405_swgwmr.pdf)? YES		
File(s) indicate successful data export? NO		
Report signed and sealed by P.G.? YES	Date signed and sealed: 2/6/15	
Report received within 60 days of completing lab analysis? NO (due 2/1/15, received 5 days late)		
^a contour map for A-zone wells only; groundwater travel shifted from a largely NE direction during the May monitoring period to a NNW and NNE direction during this monitoring period		