



**Review of 2013 2nd Semi-annual Groundwater Monitoring Report
for
J.E.D. Solid Waste Management Facility**

Review Date: 3/27/14	Reviewed By: Allen Rainey, Environmental Specialist III	WACS Facility ID #: 89544
Facility Name: J.E.D. Solid Waste Management Facility		
Monitoring Periods: November 2013		
Type: Routine and Evaluation Monitoring	Facility Class Types: Class I, Construction & Demolition Debris	
Report Date: 1/31/14	Received Date: 2/3/14	
Prepared By: Geosyntec Consultants	Submitted By: ----	

Review Details

Summary

Other than the continuation of evaluation monitoring for benzene, there are no actions needed to protect groundwater. The facility needs to evaluate and discuss sodium and chloride exceedance trends in its Water Quality Monitoring Plan Implementation Schedule (MPIS) Technical Report that is due by 7/31/14.

Parameter Exceedances

- Benzene standard (1 µg/L) exceeded in 11 A-zone groundwater wells. Benzene was absent from the B-zone and C-zone wells.

<u>Well ID</u>	<u>Micrograms per Liter (µg/L)</u>
Detection well MW-1A	8.6
Detection well MW-3A	7.2
Detection well MW-4A	4.1
Detection well MW-5A	1.3
Detection well MW-6A	2.6
Detection well MW-8A	4.1
Detection well MW-9A	3.7
Detection well MW-10A	5.1
Detection well MW-11A	5.7
Detection well MW-12A	4.2
Detection well MW-13A	1.6

- Lead standard (15 µg/L) exceeded in unfiltered sample for detection well MW-16BR at 31.4 µg/L, but not for filtered sample at 0.82 µg/L. Well MW-16BR was one of two wells that had turbidity levels greater than 20 nephelometric turbidity units (NTU).
- Total phenols 62-777 GCTL (10 g/L) exceeded in detection wells MW-11C at 15 µg/L and MW-17A at 11 µg/L.
- Ammonia 62-777 GCTL (2.8 mg/L) exceeded in 12 A-zone groundwater wells. Of the 12 wells containing ammonia above the GCTL, wells MW-5A, MW-9A, MW-10A and MW-11A contained ammonia levels below the background of 10 mg/L established in the facility's Monitoring Plan Implementation Schedule for those wells.
- Total dissolved solids standard (500 mg/L) exceeded in three of the A-zone groundwater wells.
- Sodium standard (160 mg/L) exceeded in detection well MW-1A at 336 mg/L.
- Chloride standard (250 mg/L) exceeded in detection well MW-1A at 617 mg/L.
- Iron standard (0.3 mg/L) exceeded in most groundwater wells.

Department Conclusions

- Evaluation monitoring for benzene under Rule 62-701.510(6), F.A.C shall continue.
- Comparison of the unfiltered and filtered samples from MW-16BR indicates the presence of lead might be correlated to high turbidity. The Department shall continue to monitor this issue.
- The Department concurs with the consultant's recommendation to remove total phenols analyses from the "Laboratory Parameters" list in requirement 9 of the facility's Monitoring Plan Implementation Schedule.
- Sodium and chloride standard exceedances have appeared in well MW-1A since at least November 2012; at that time, the exceedances were 198 mg/L and 358 mg/L, respectively. The facility should evaluate and discuss those exceedances in its Water Quality Monitoring Plan Implementation Schedule (MPIS) Technical Report that is due by 7/31/14.
- There are no known ammonia impacts to surface water quality or to a drinking water well. Based on Department policy, no further investigation is necessary regarding the ammonia concentrations.

Hyperlink to Exceedance Summary Spreadsheet

[89544 Exceedance Summary Spreadsheet 2013-11.xlsx](#)

Sampling and Analysis

Sampling Dates: Nov. 18, 19, Dec. 2, 3, 4, 5	Last Lab Analysis Date: 12/18/13
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# of Active Groundwater Monitoring Locations: 45	# of Active Surface Water Monitoring Locations: 2
Initial Sampling Device: Peristaltic Pumps & Submersible Pump	Re-sampling Device: N/A
All groundwater and surface water sampling points sampled? NO ^u	All analyses performed? YES
Turbidity \leq 20 NTUs? NO*	Unfiltered Samples? NO ^t
Dissolved oxygen $>$ 5 mg/L or \leq 20% saturation? YES*	pH between 6.5 – 8.5? NO*
Analysis for unionized ammonia? NO ^u	Phenols analysis? YES
Trip blanks? YES	Field or equipment blanks? YES
Lab certified under National Environmental Laboratory Accreditation Program? YES	
* met stabilization criteria except for 1 well for turbidity & 4 wells for DO	
^u Surface water locations SW-2 and SW-3 were dry and not sampled.	
^t MW-16BR and MW-22CR were filtered with 1 μ m filter size; turbidity averaged 340 & 100.8 NTUs, respectively.	
Monitoring Plan Implementation Schedule Reporting Requirements	
Revision Date: 7/3/12	Effective Date: 7/12/12
Permit: SO49-0199726-022	
Notification made within 14 days of sampling? NO	
Cover letter? NO	
Ground Water Monitoring Report, DEP Form 62-520.900(2) (or equivalent)? YES	Certification Date: 1/20/14
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 EDDs? YES	
Report signed and sealed by P.G.? YES	Date signed and sealed: 1/31/14
Report received within 60 days of completing lab analysis? YES	
^a contour map for A-zone wells only	