

**GW – 028**

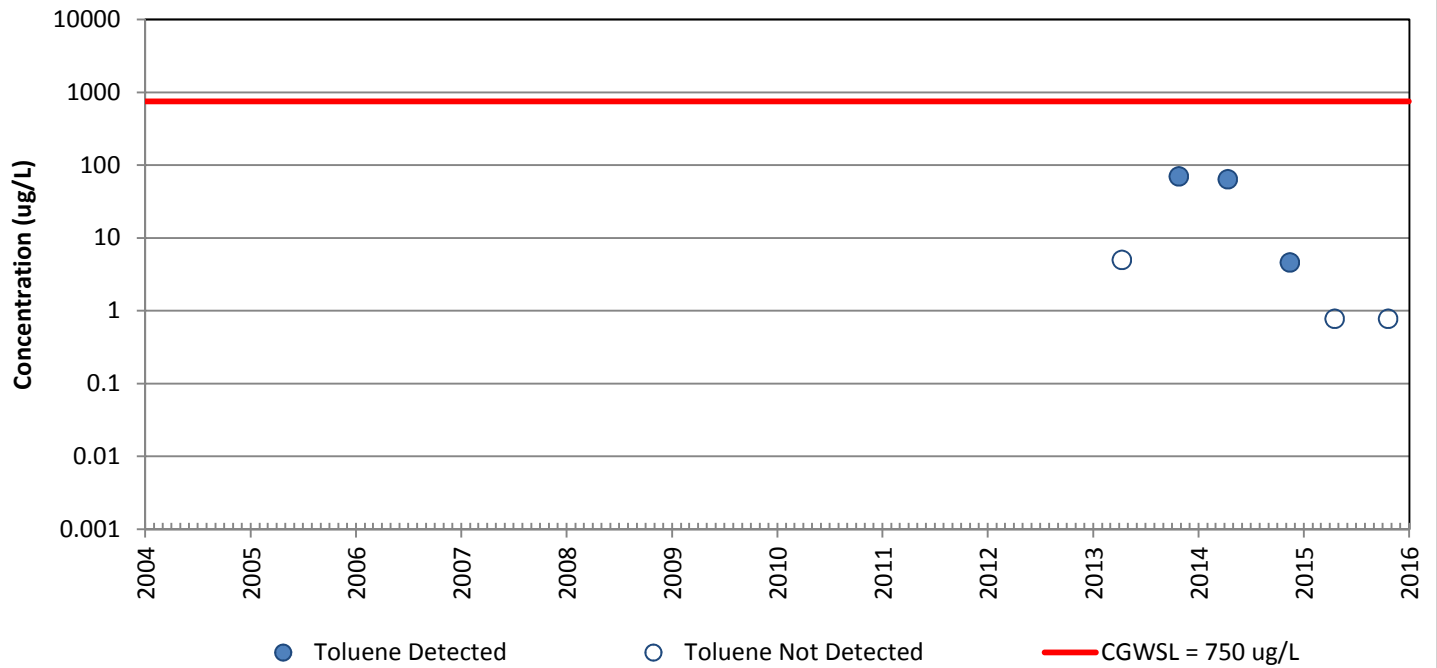
**2015 AGWMR**

**PART 10 OF 25**

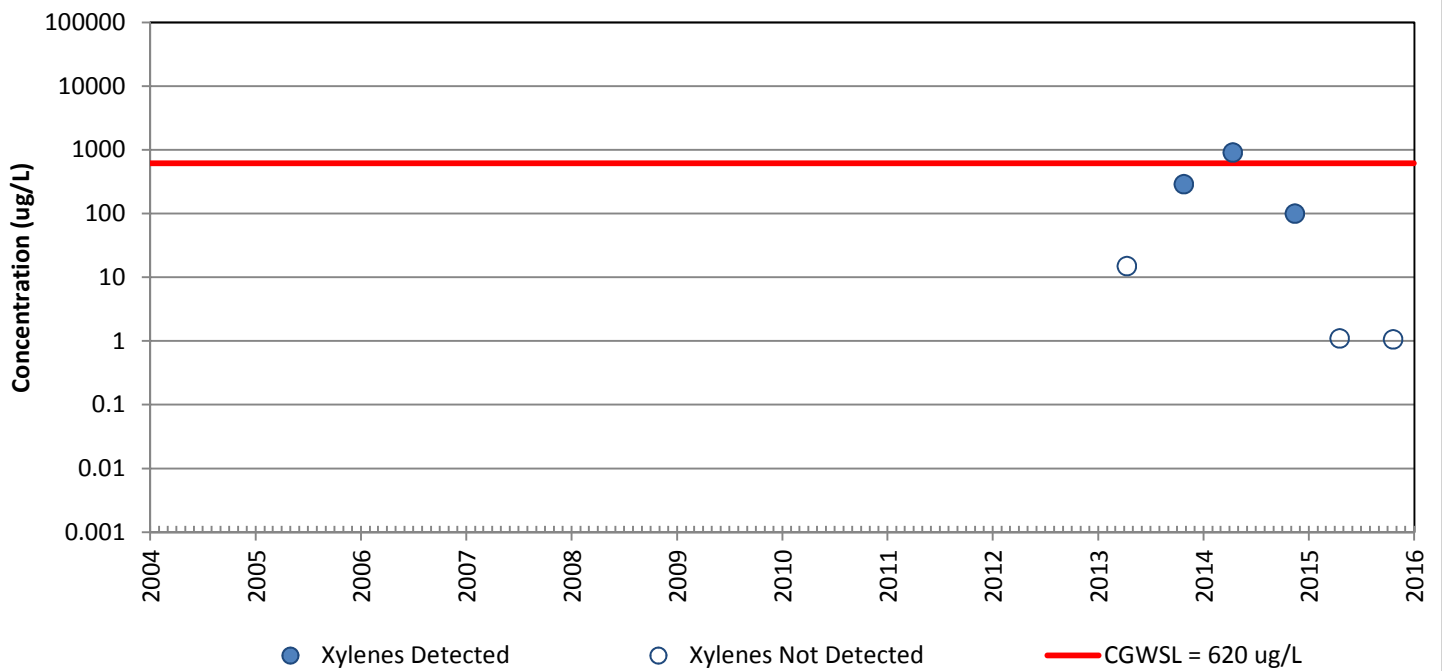
**03 / 2016**

# MW-113

## Toluene

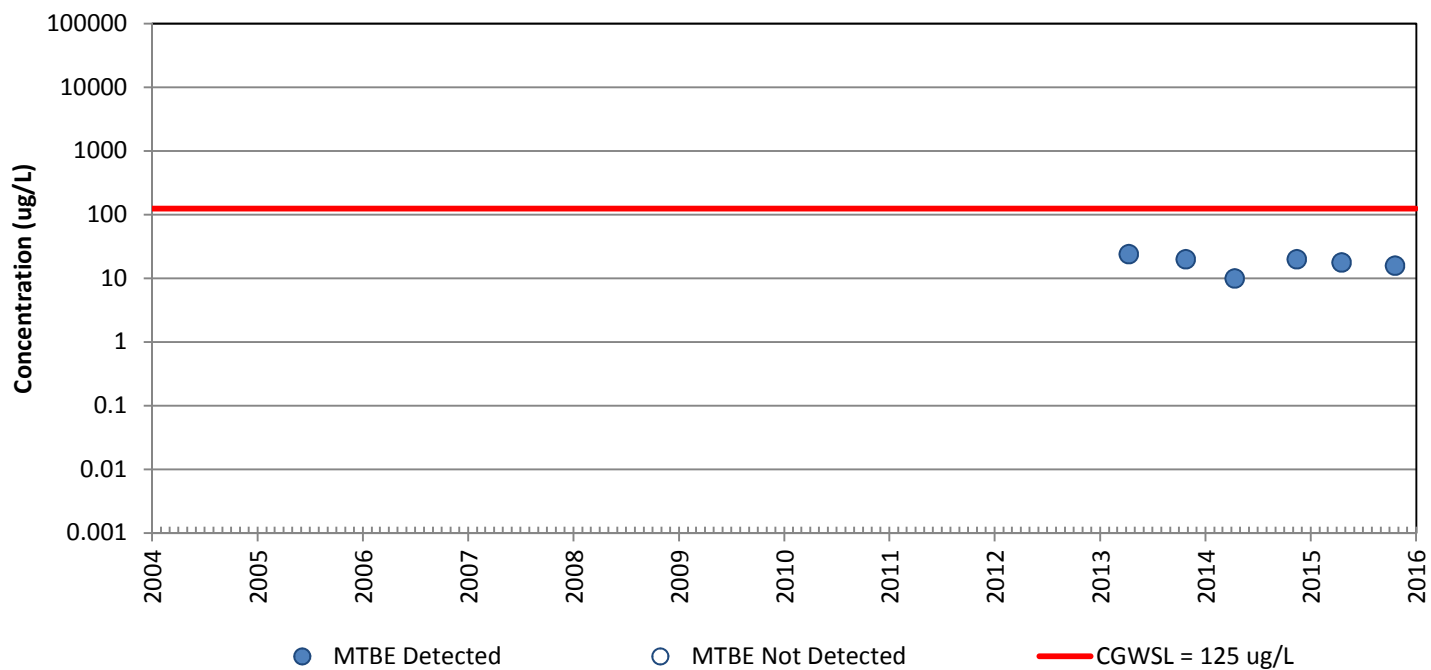


## Xylenes

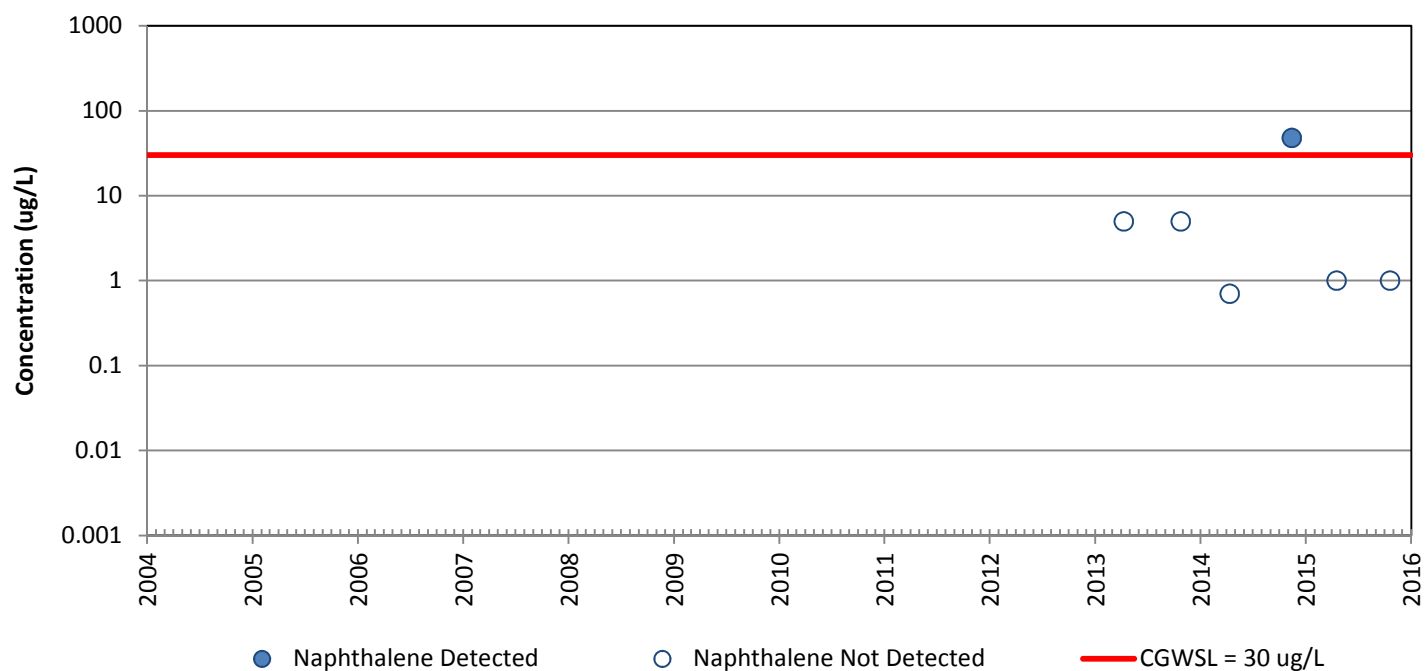


# MW-113

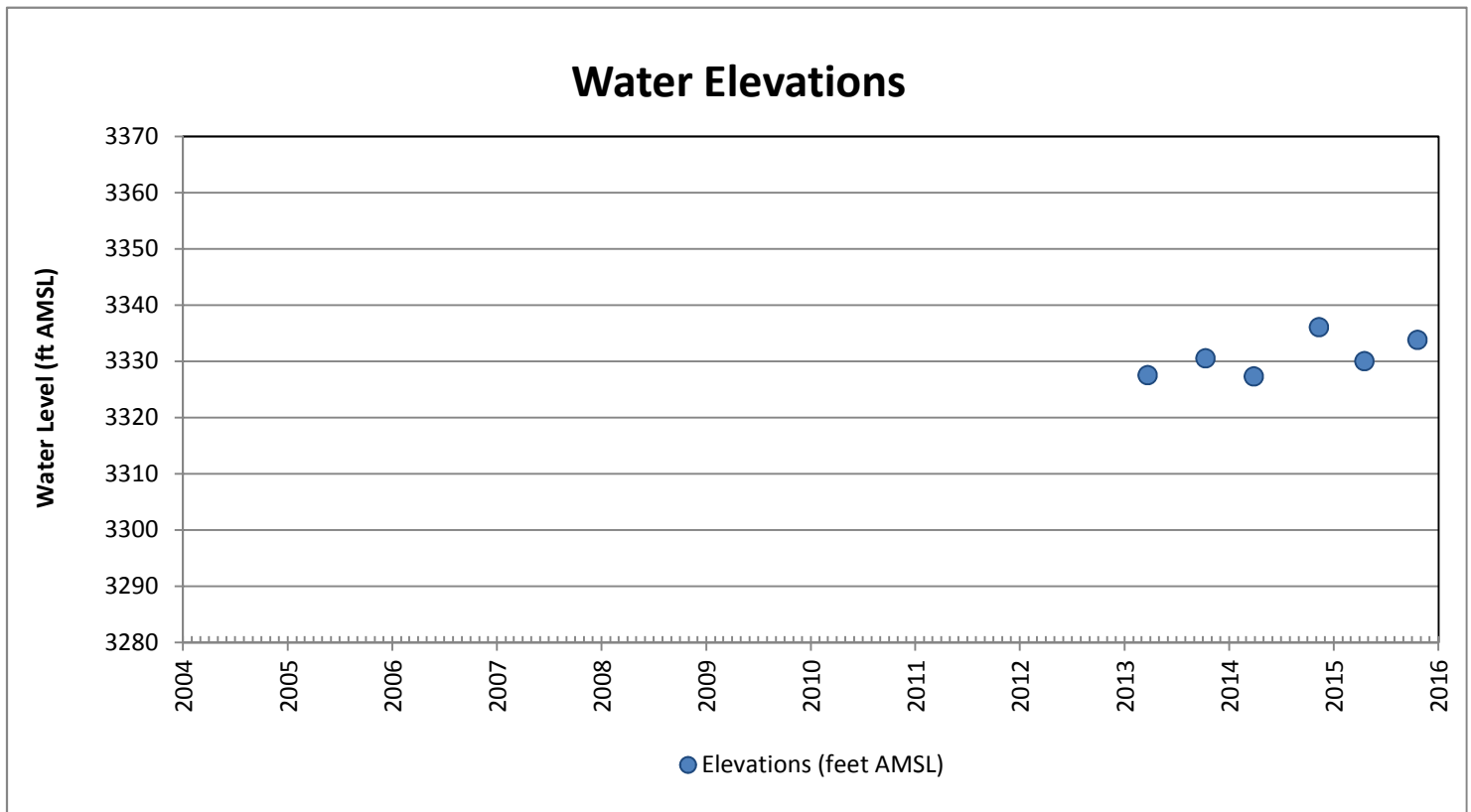
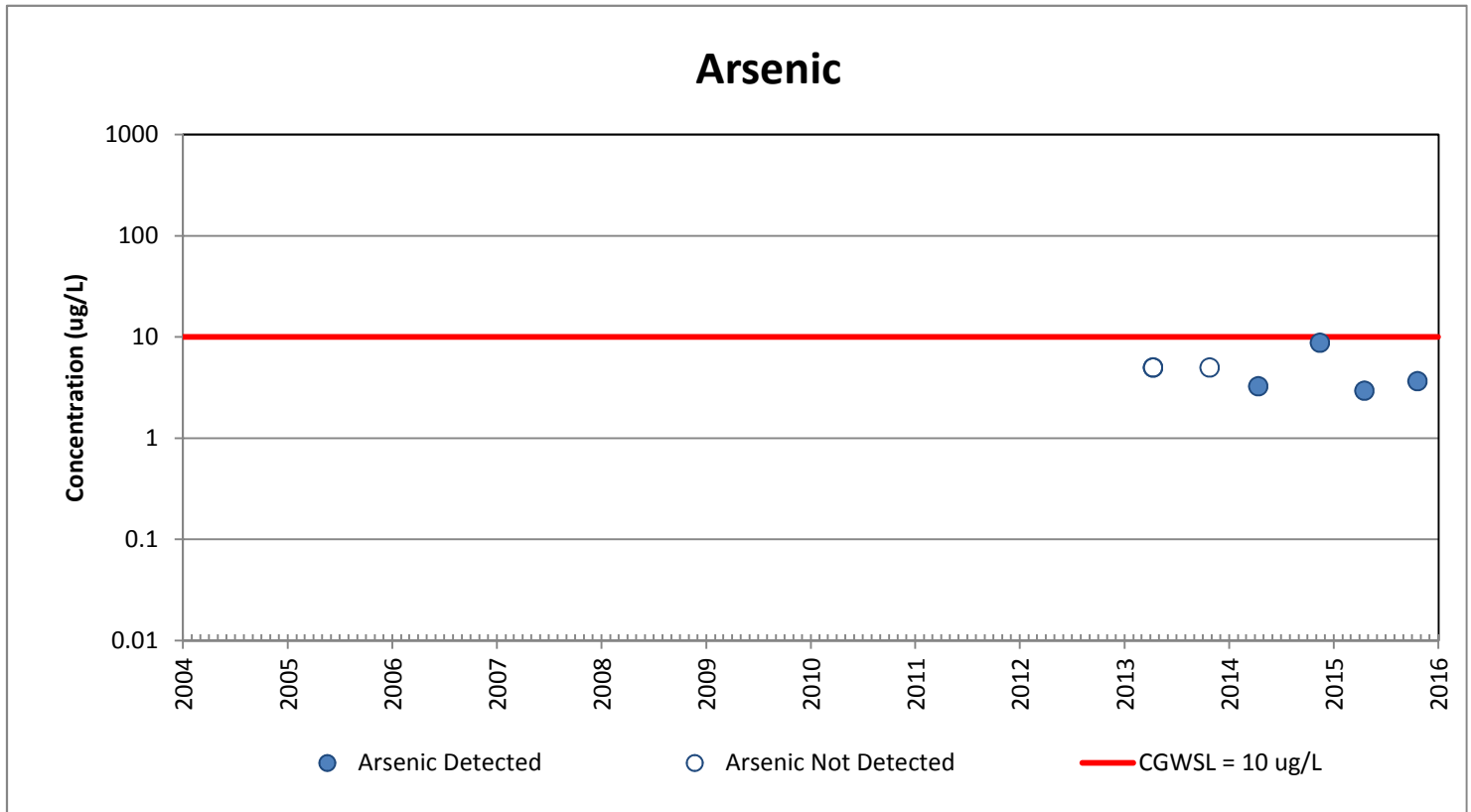
## MTBE



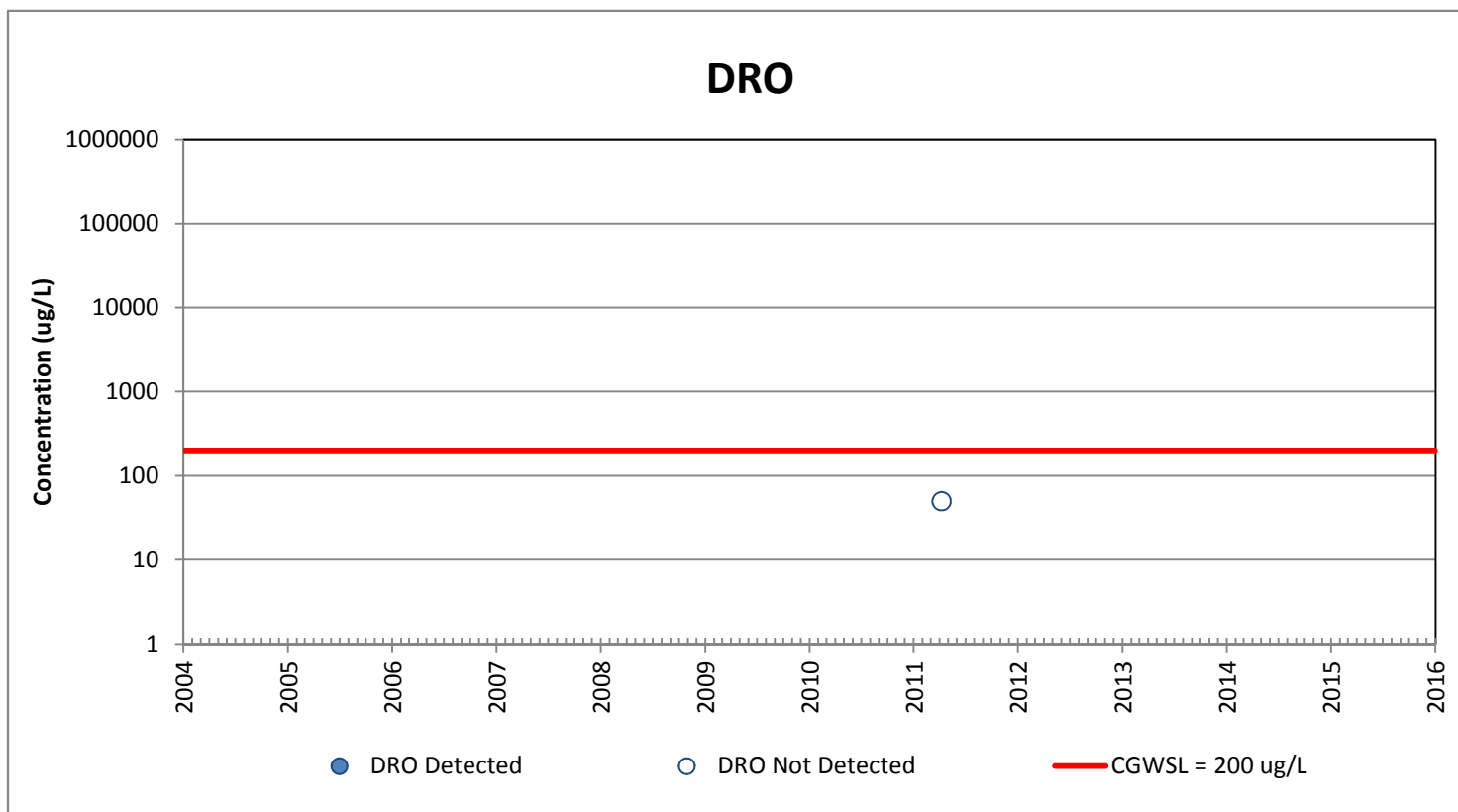
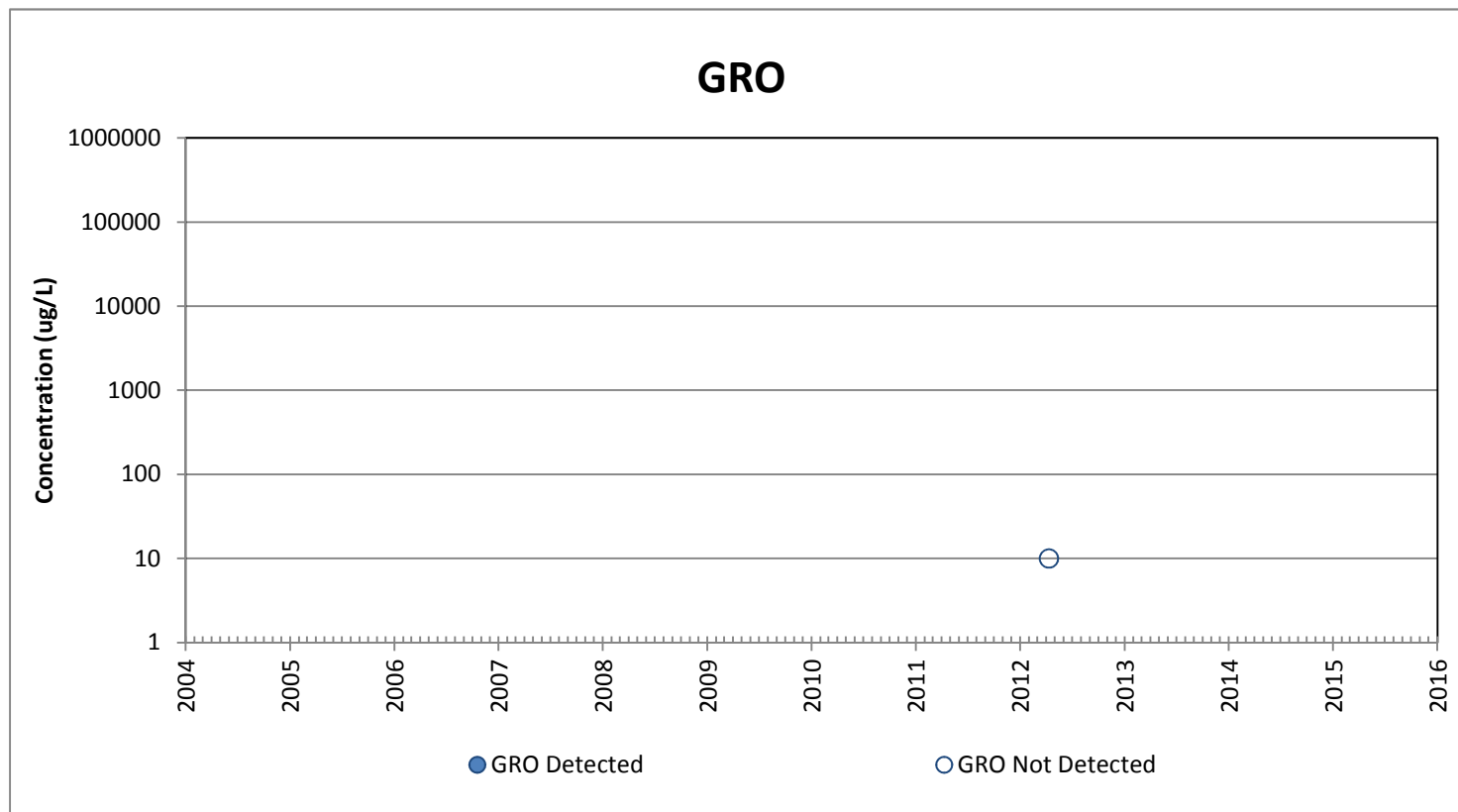
## Naphthalene



# MW-113



# RW-18

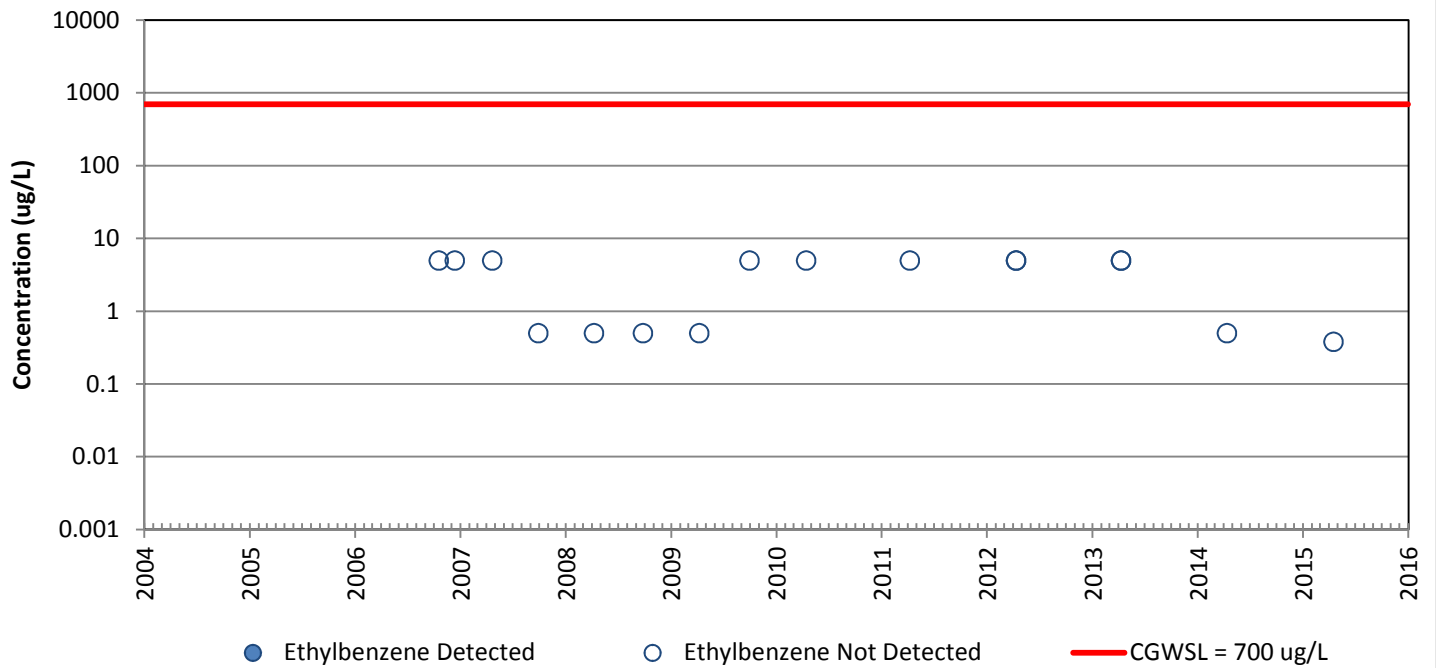


# RW-18

## Benzene

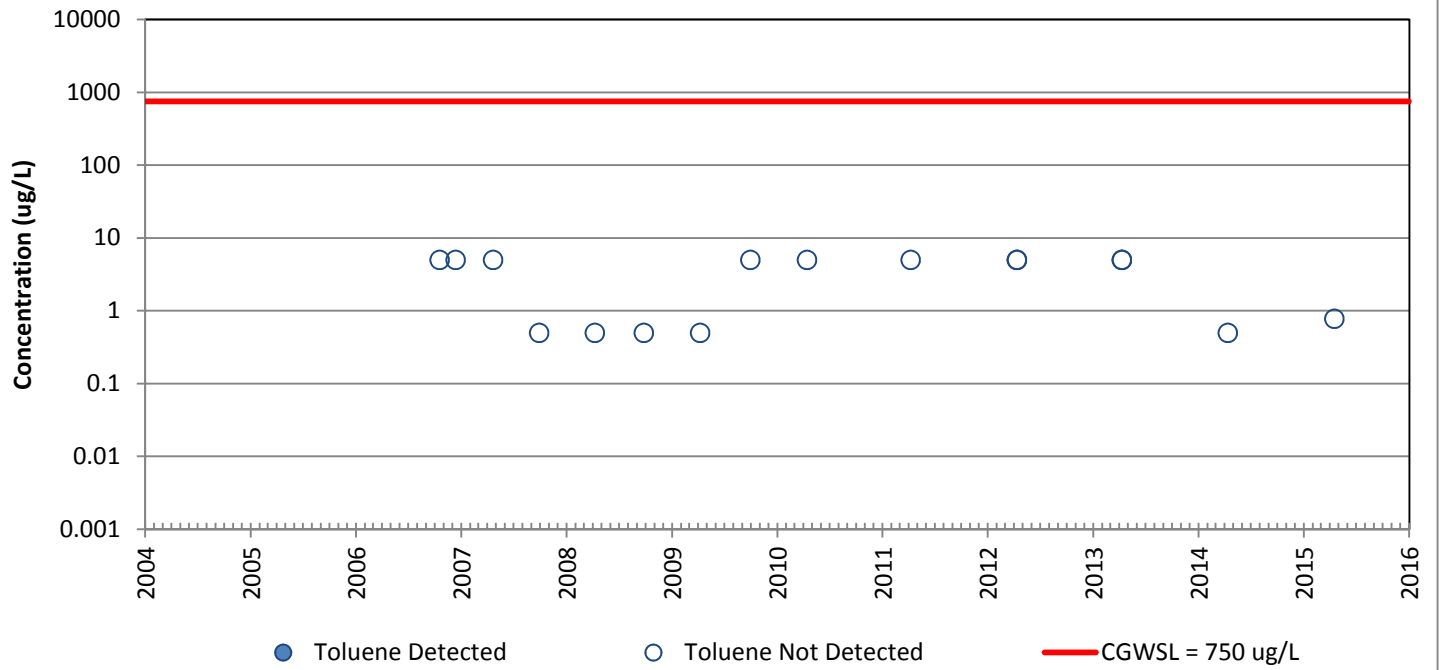


## Ethylbenzene

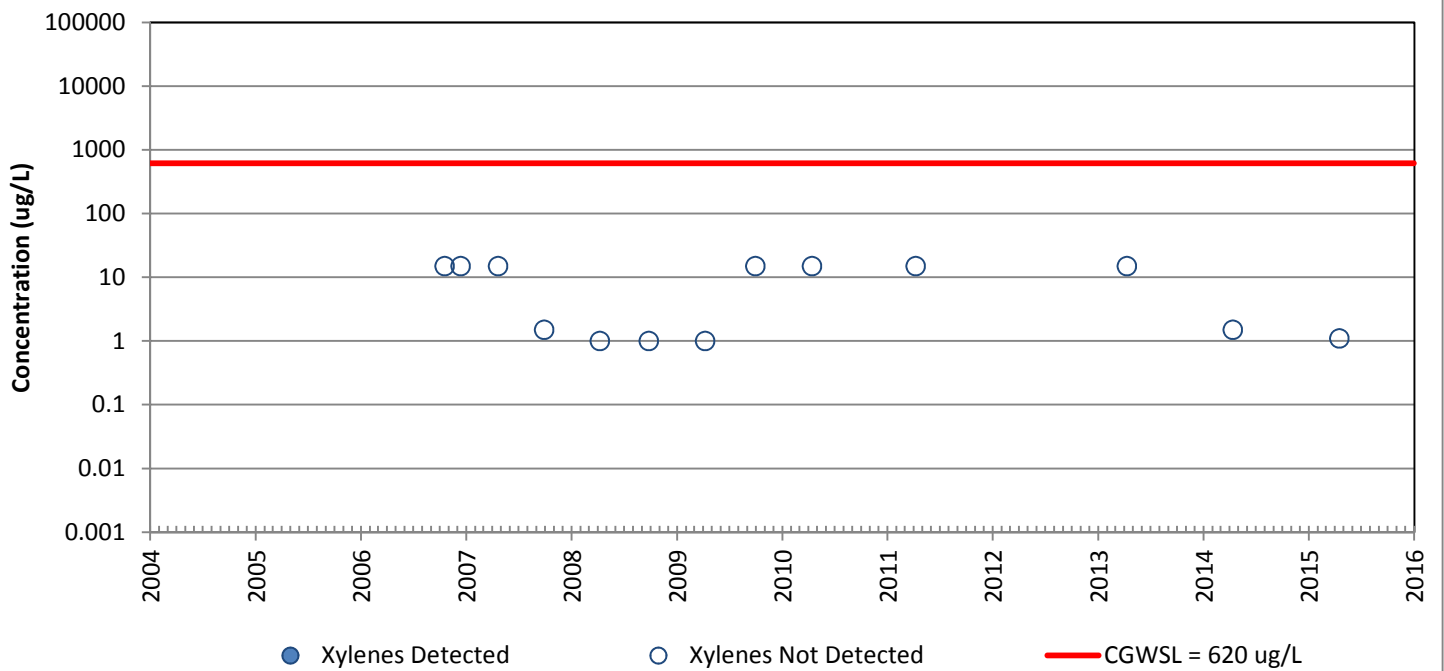


# RW-18

## Toluene

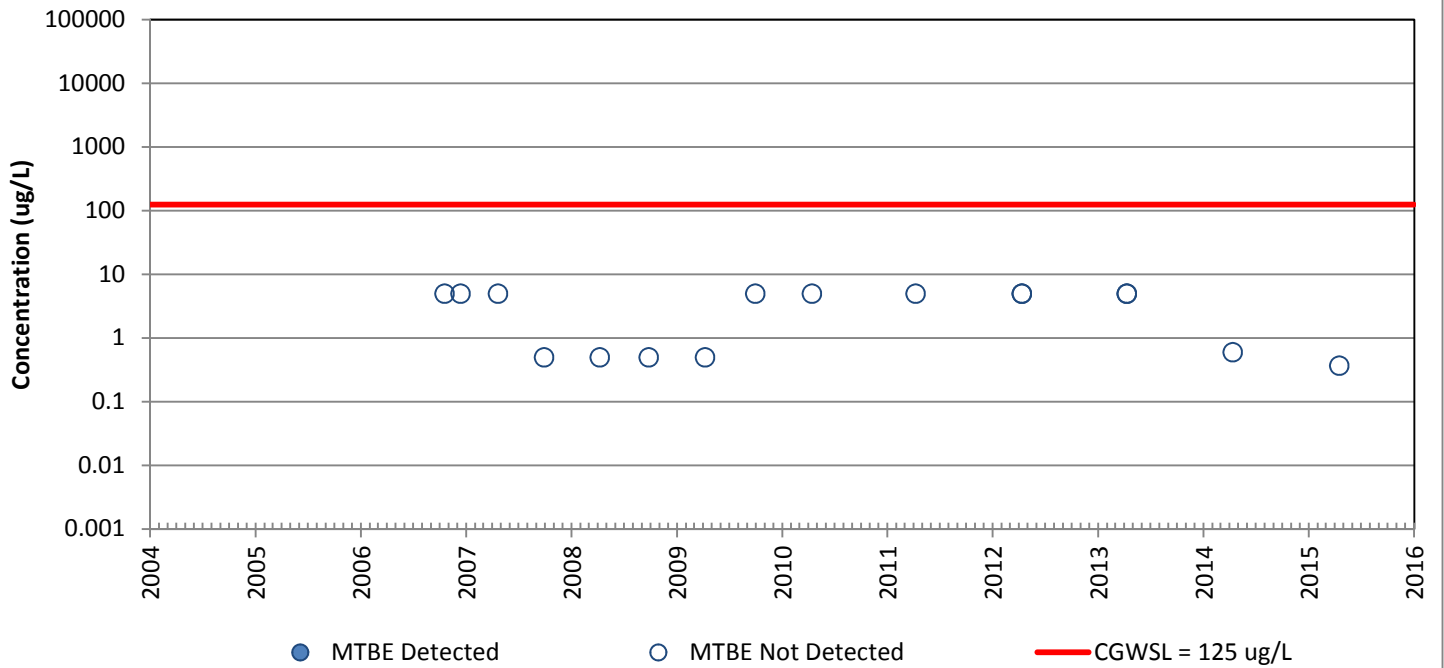


## Xylenes

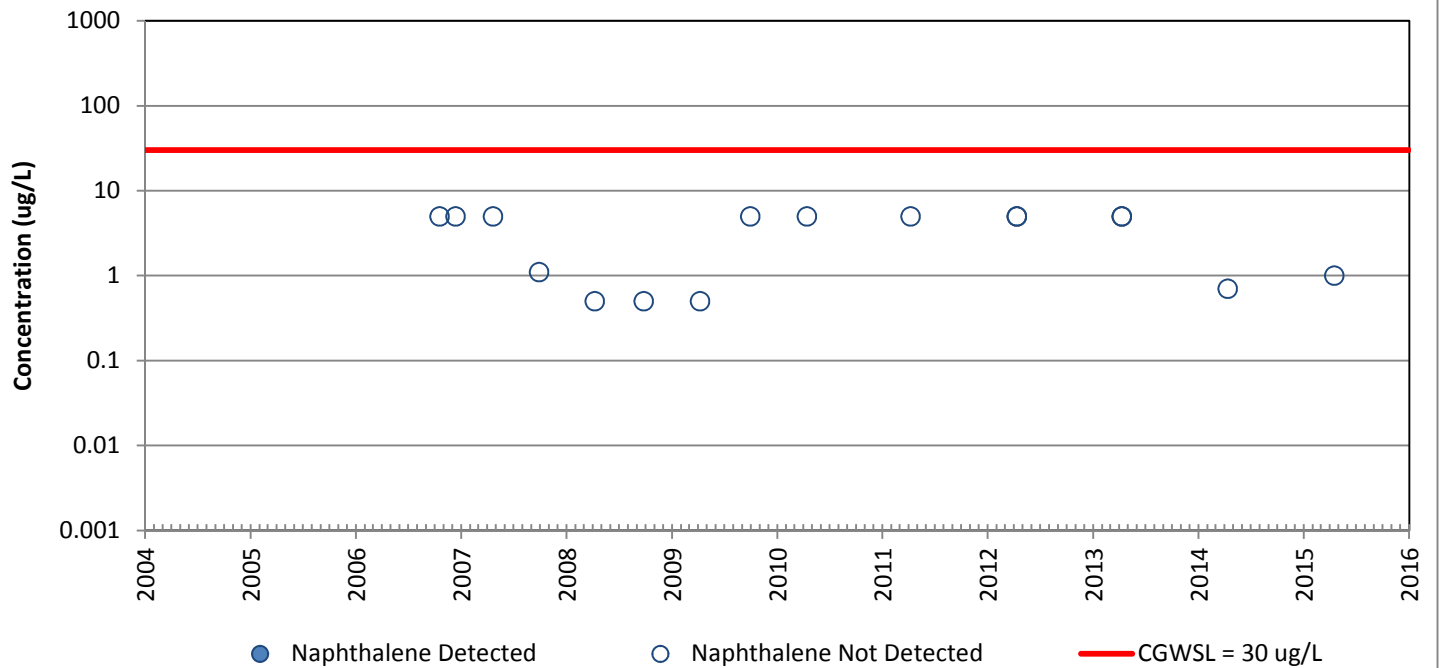


# RW-18

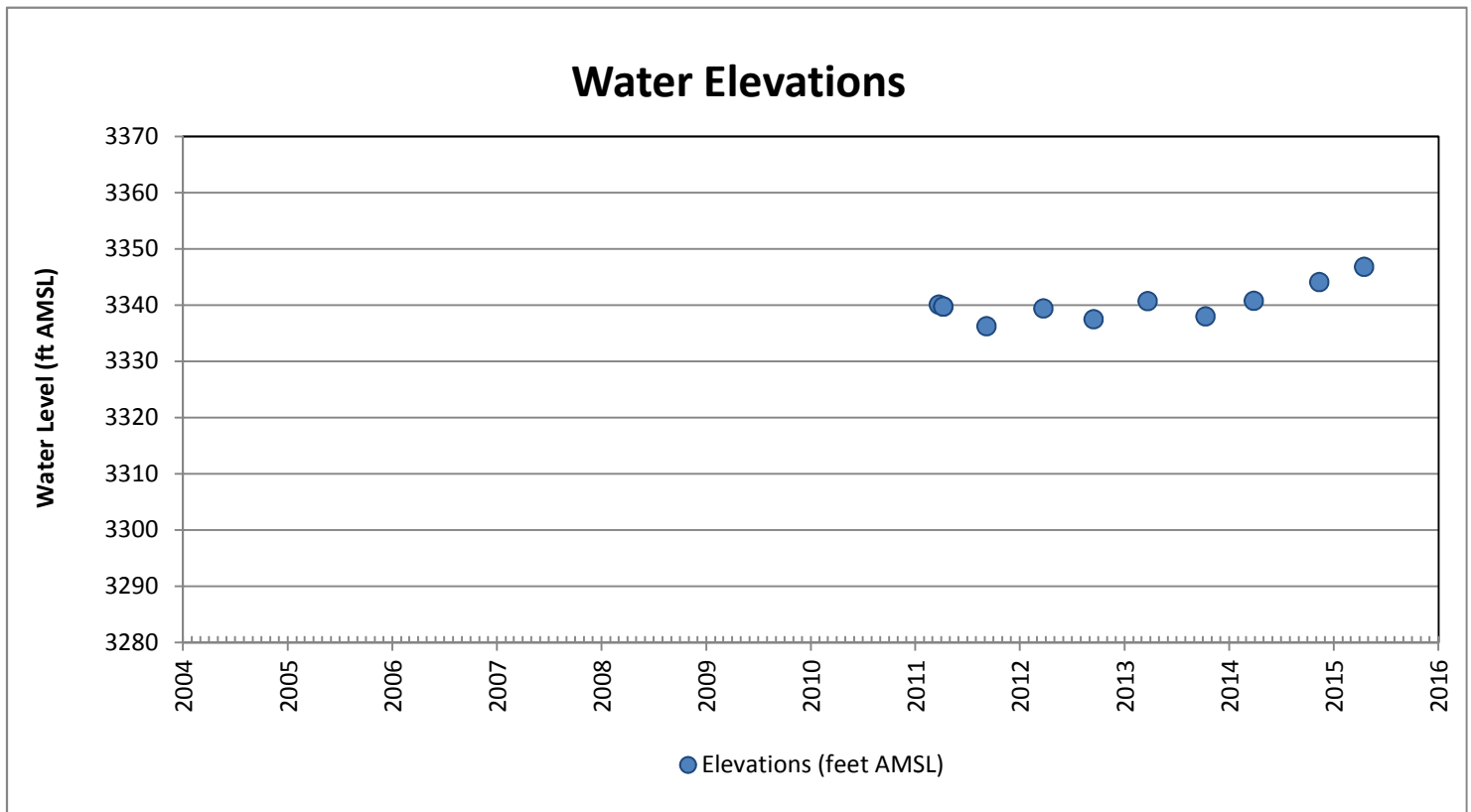
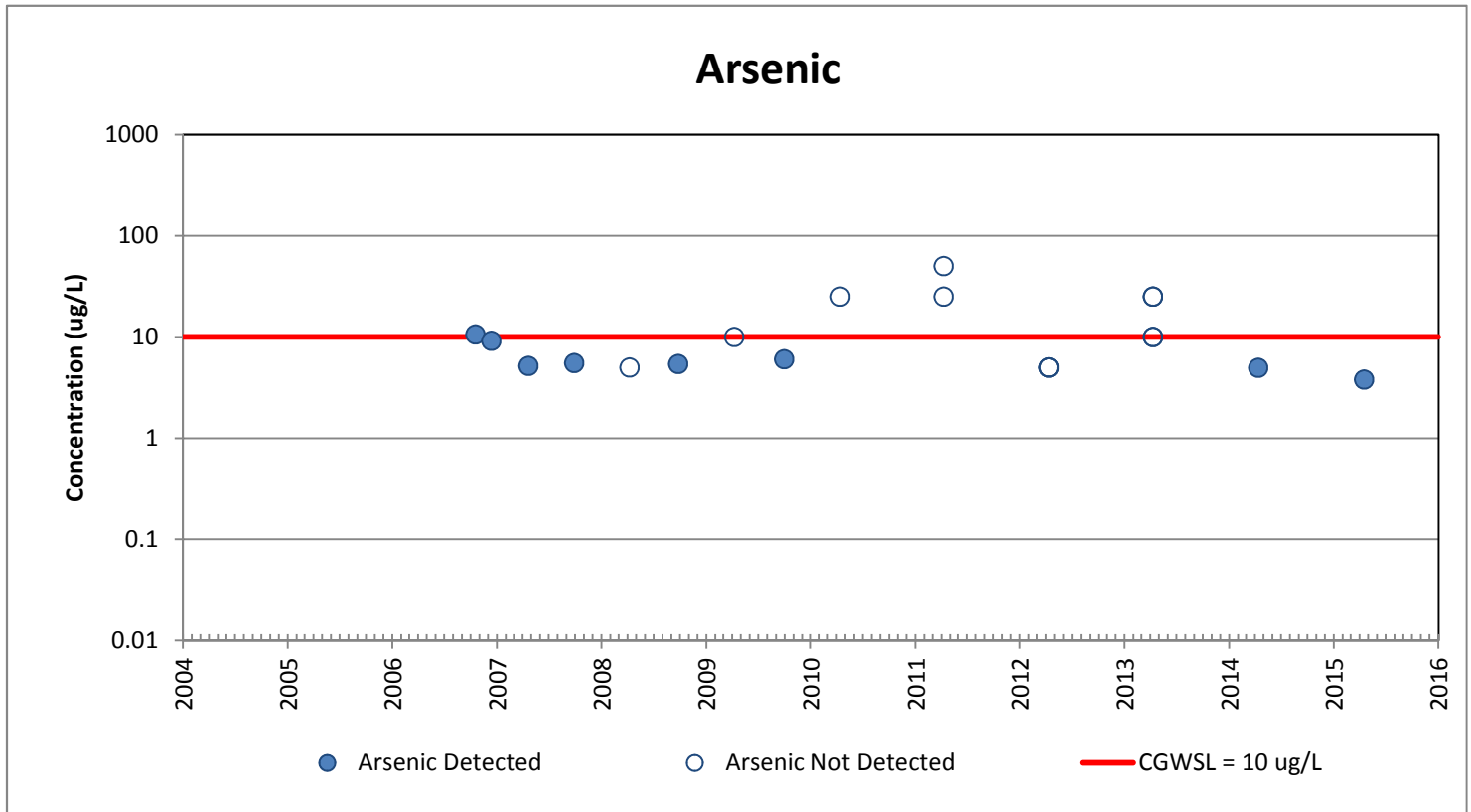
## MTBE



## Naphthalene

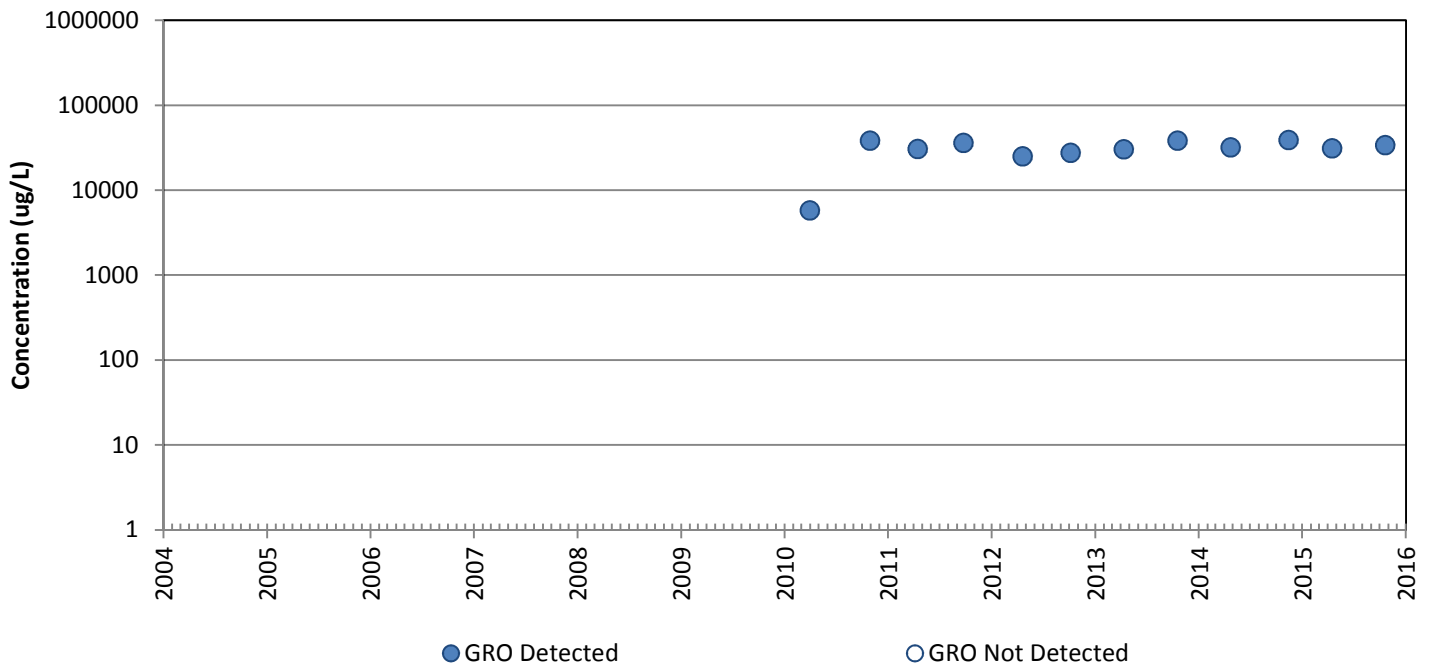


# RW-18

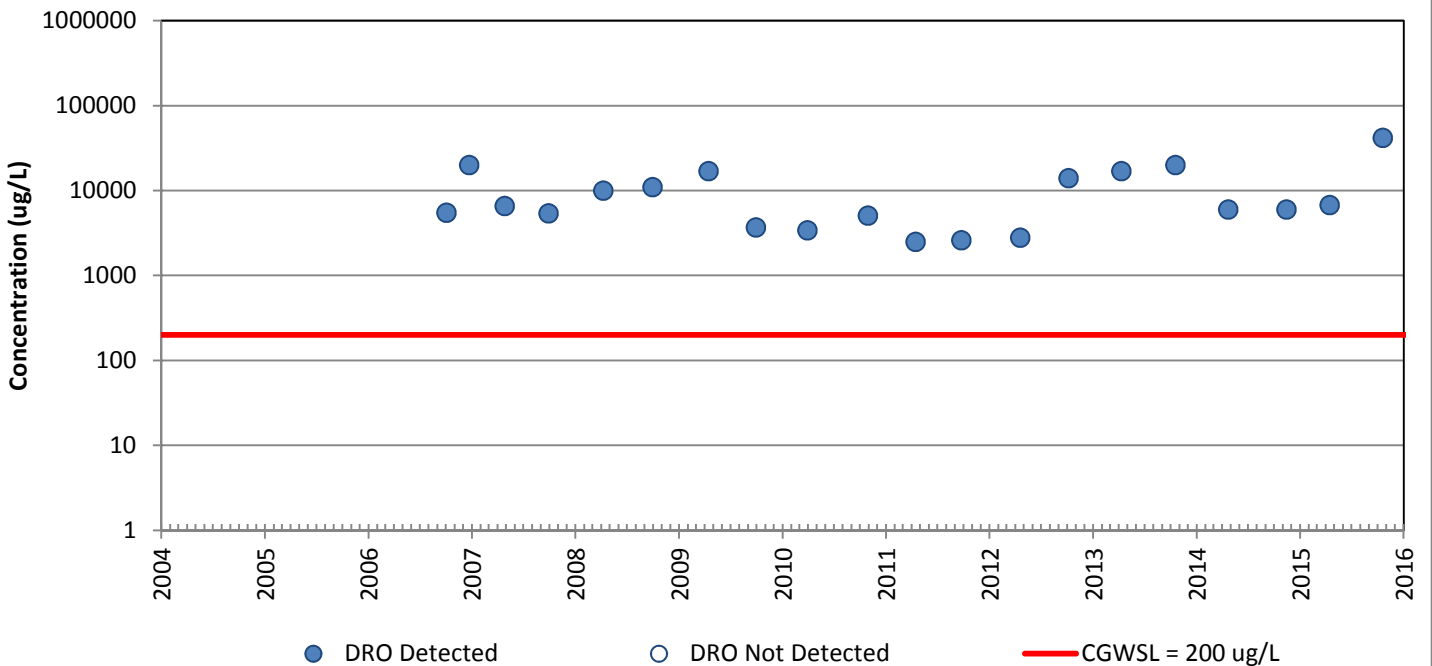


# MW-23

## GRO

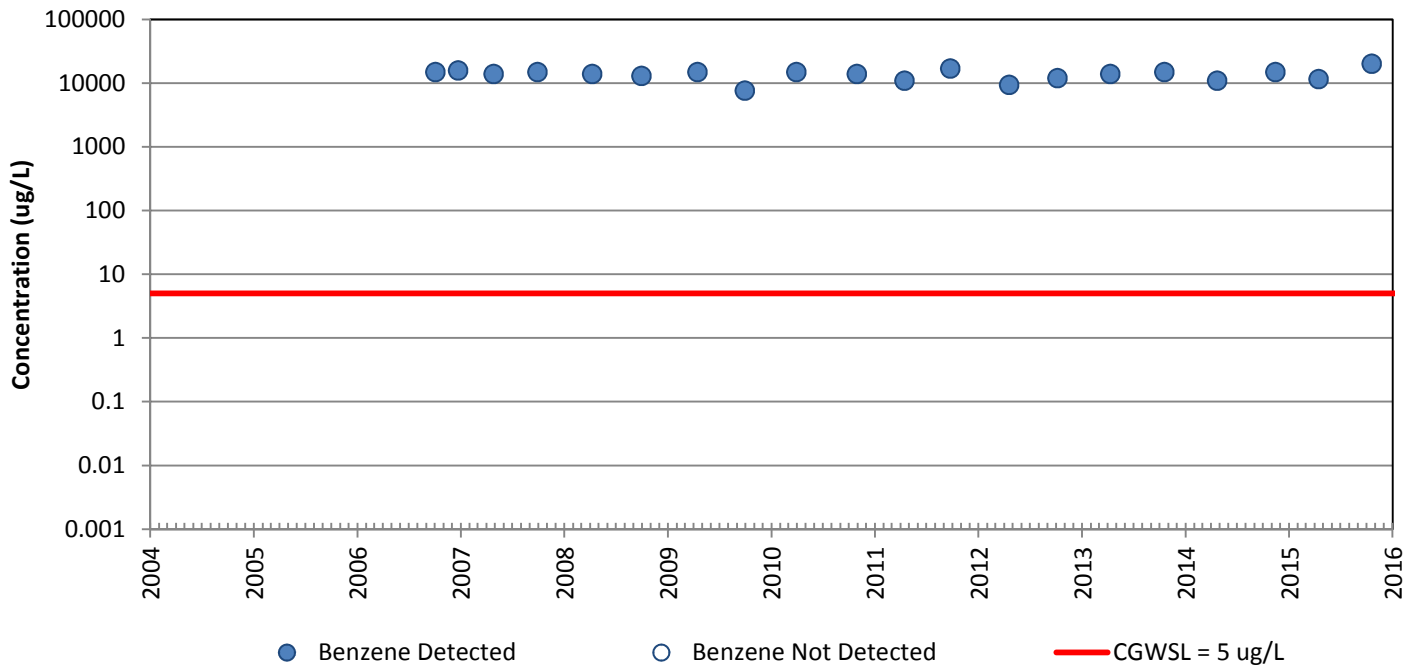


## DRO

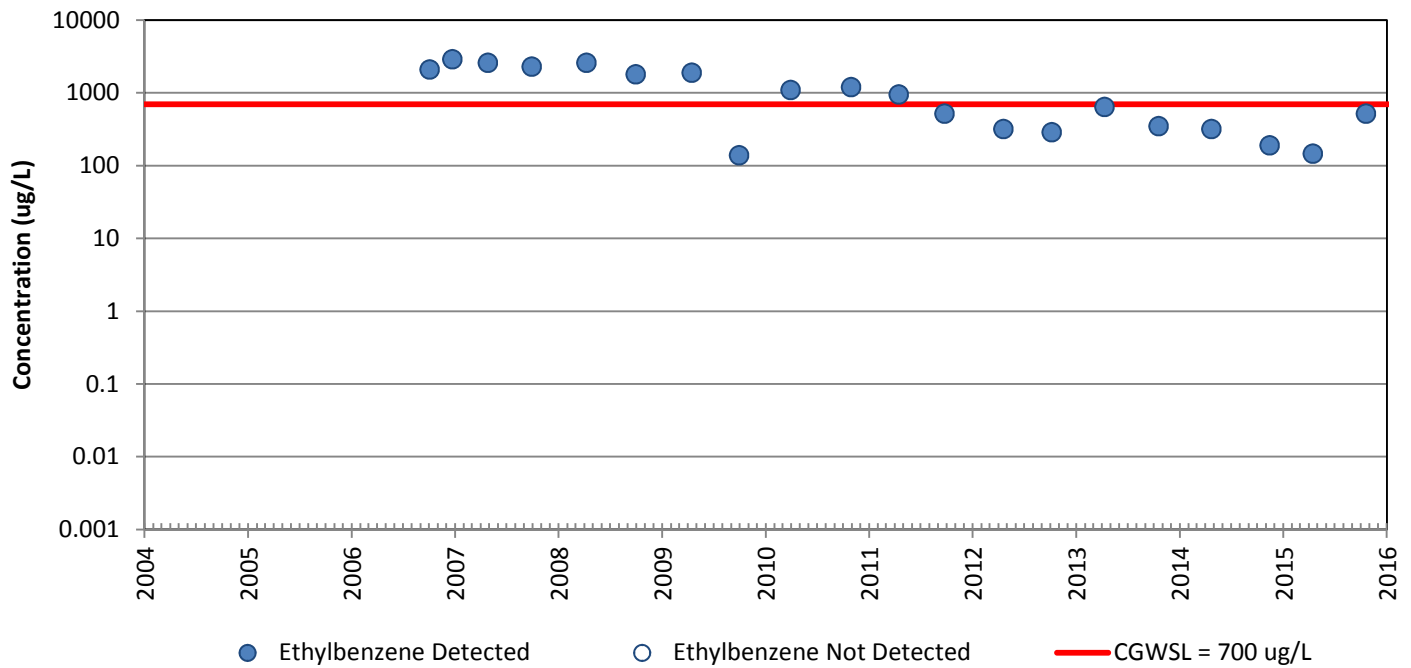


# MW-23

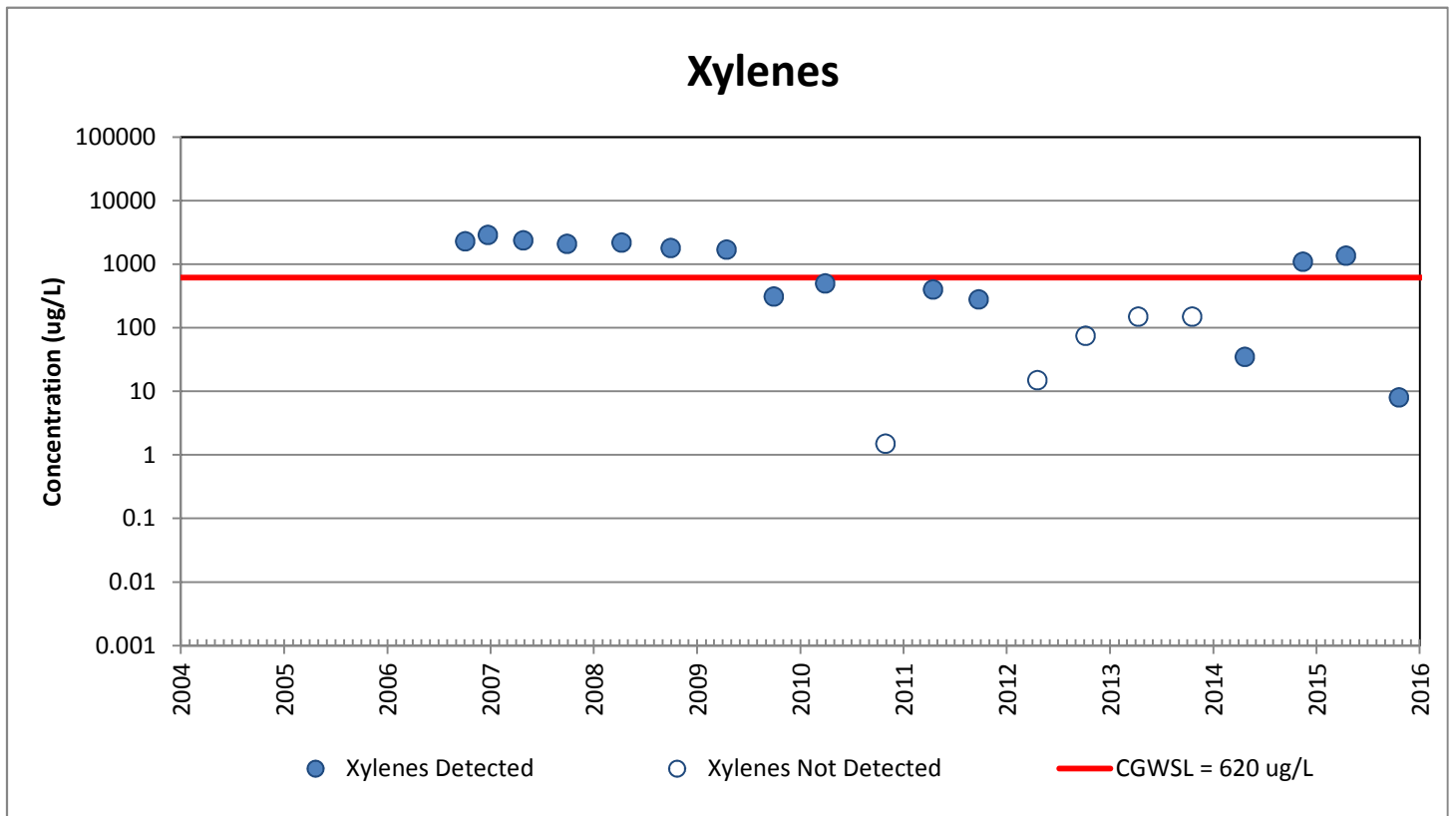
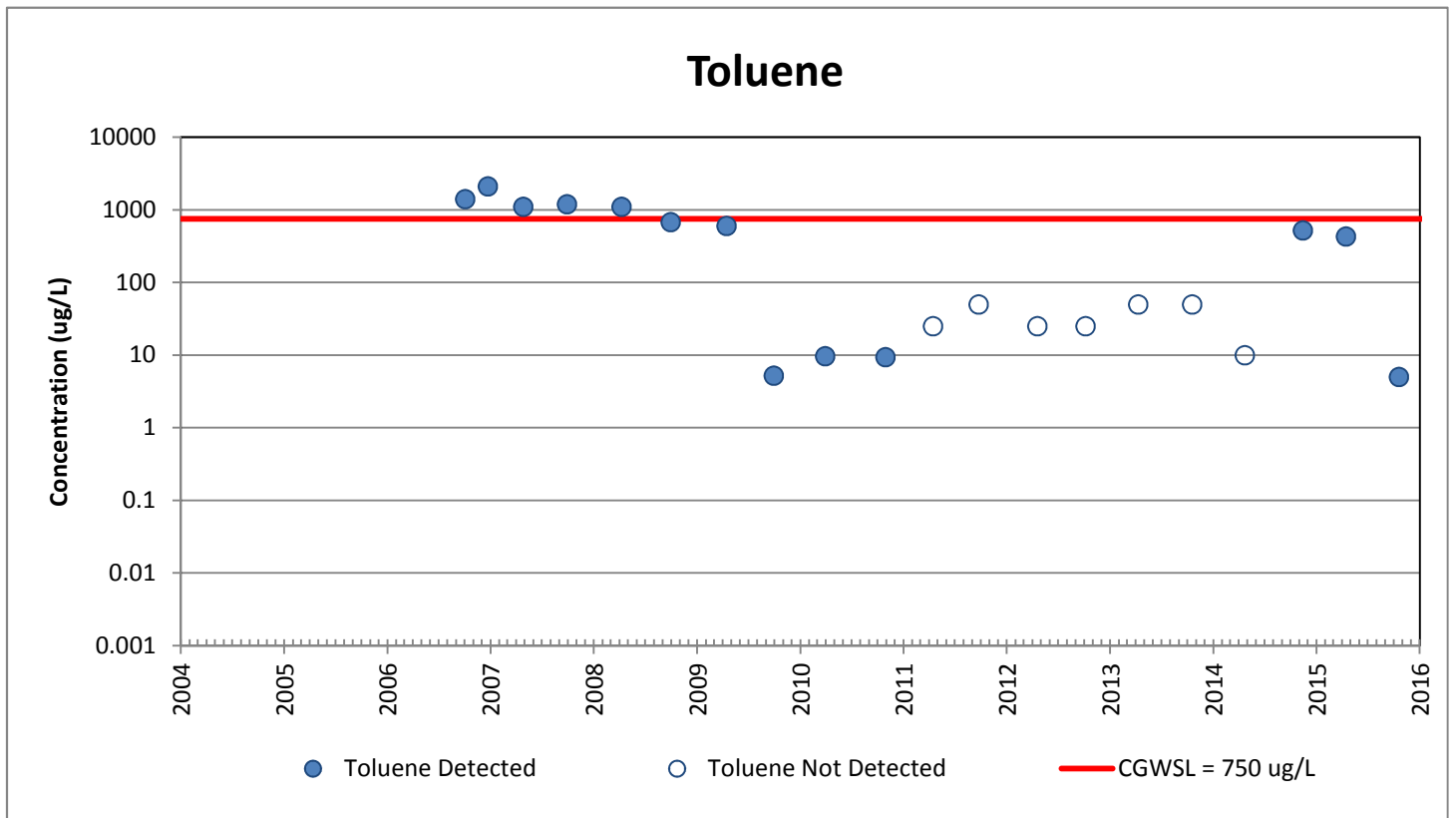
## Benzene



## Ethylbenzene

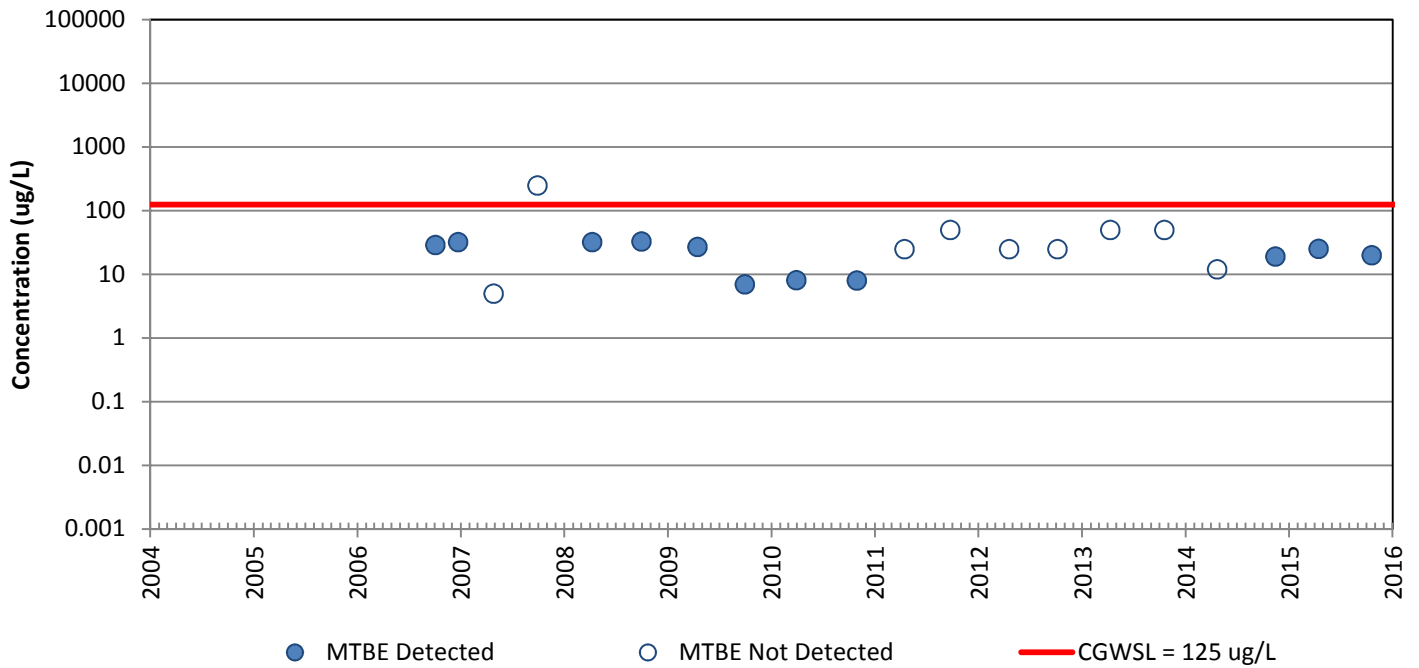


# MW-23

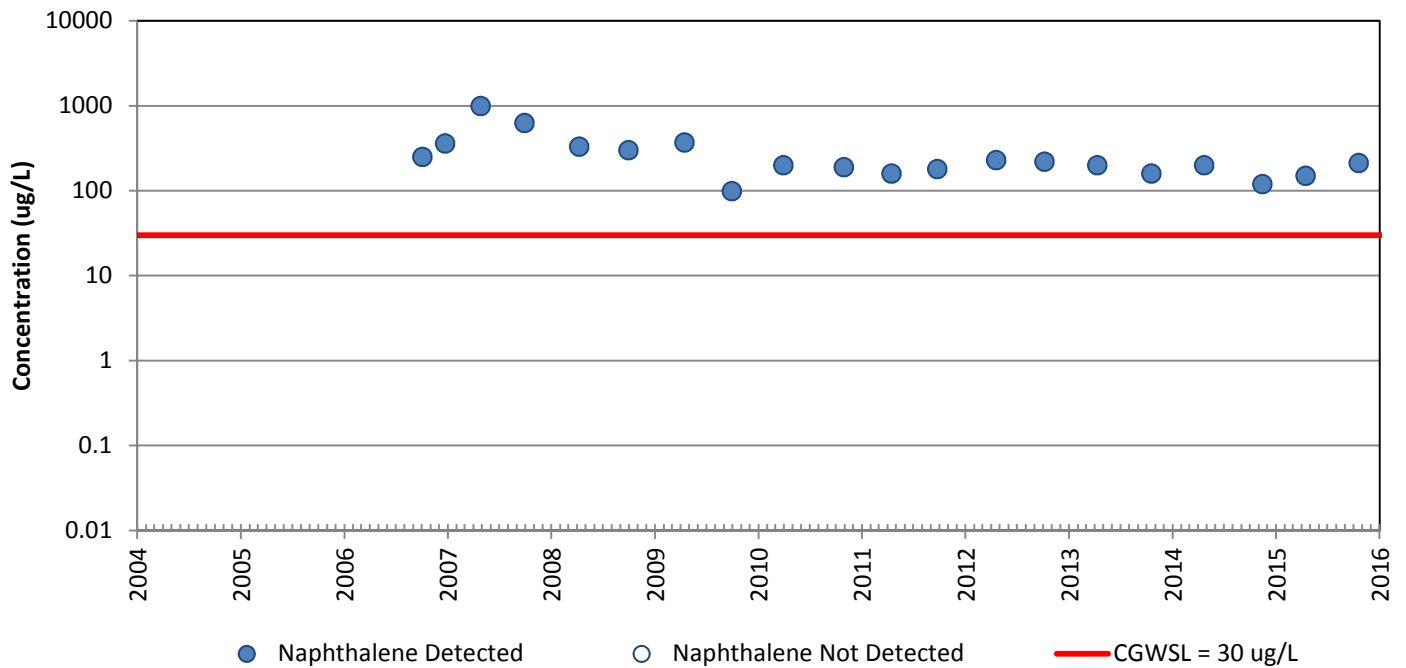


# MW-23

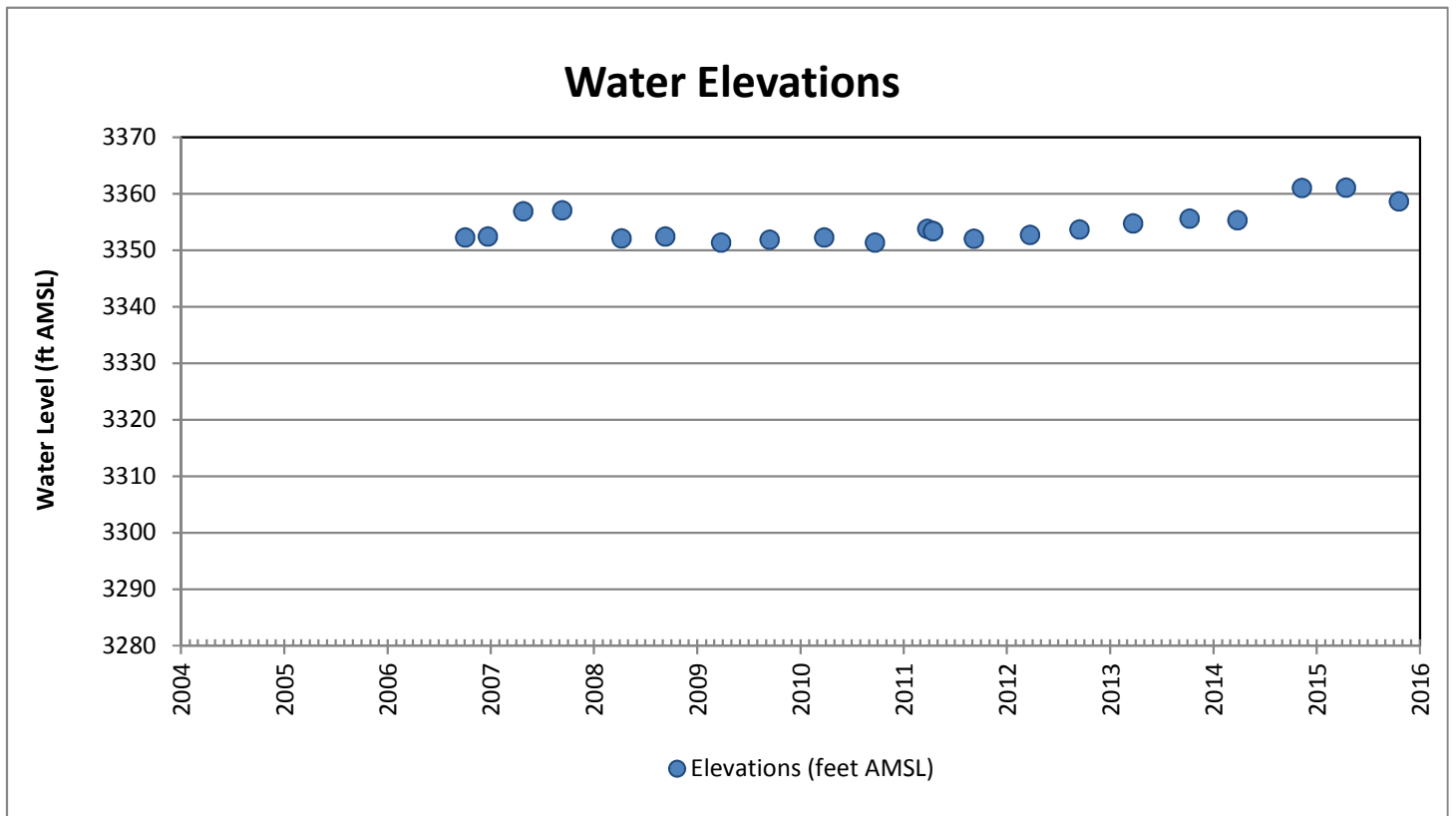
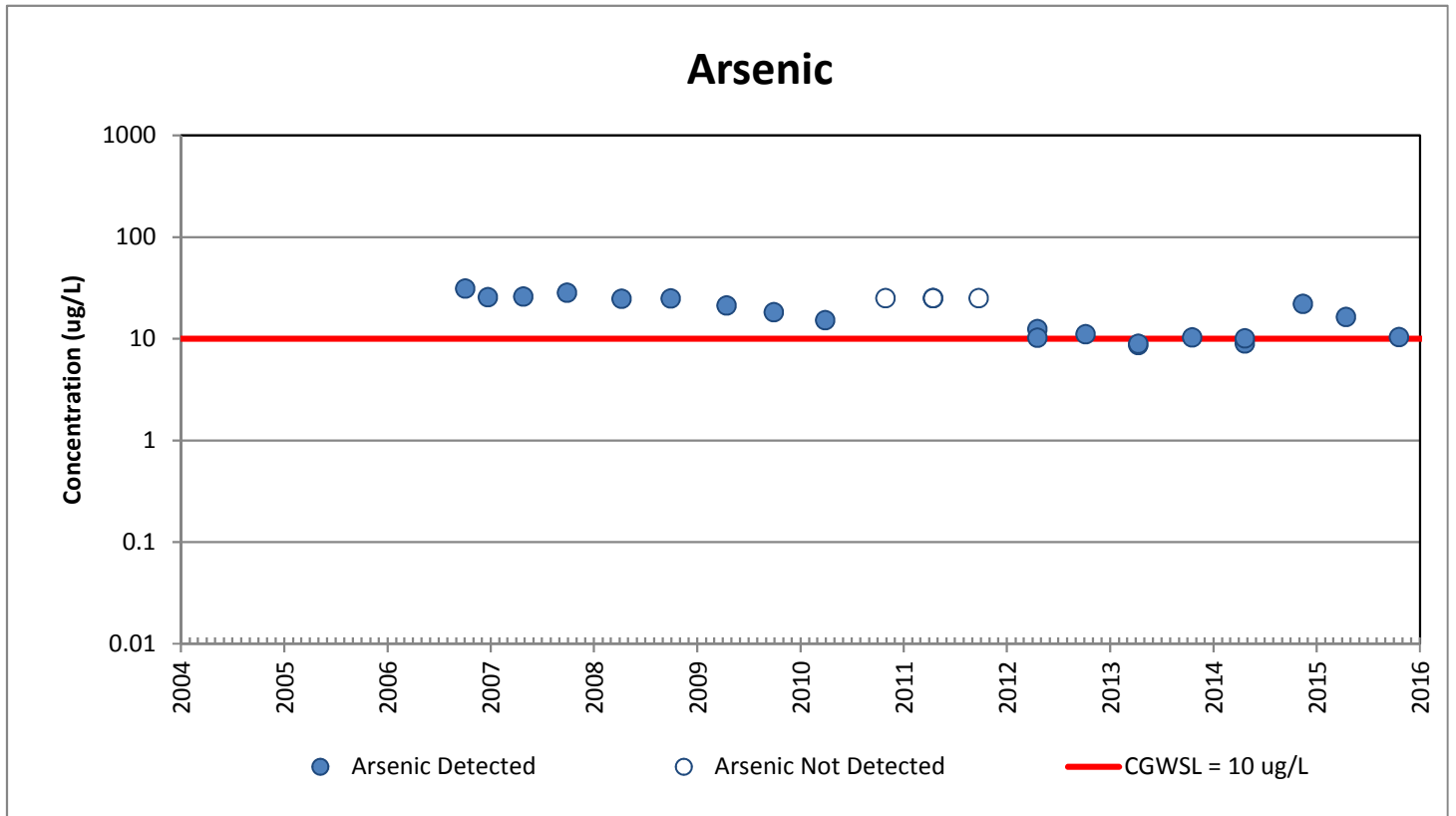
## MTBE



## Naphthalene

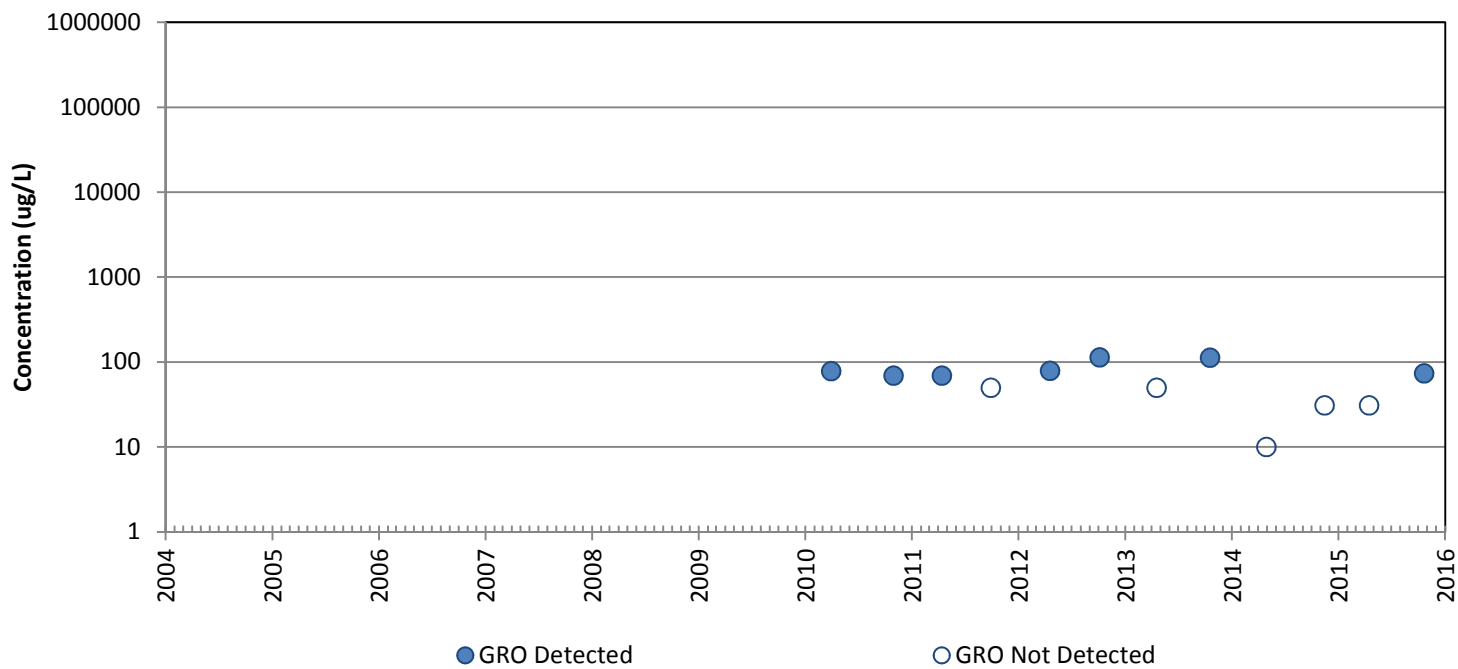


# MW-23

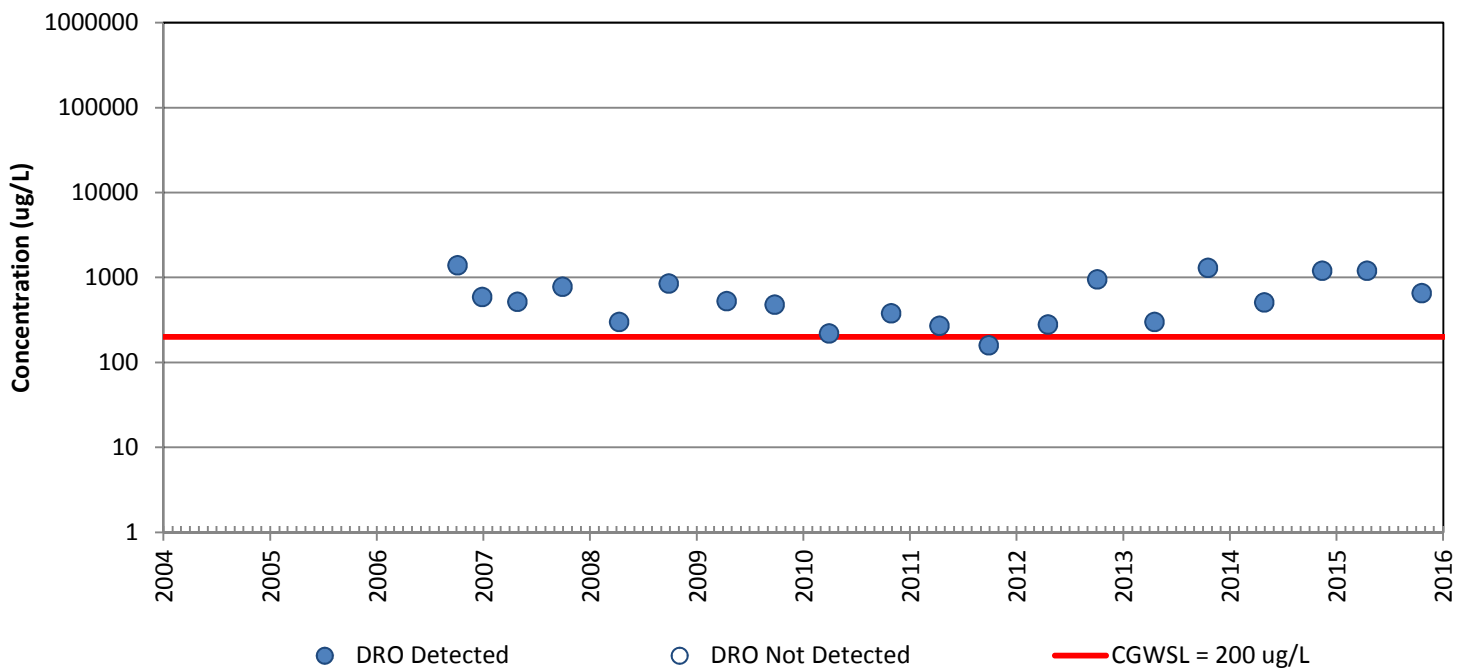


# MW-29

## GRO

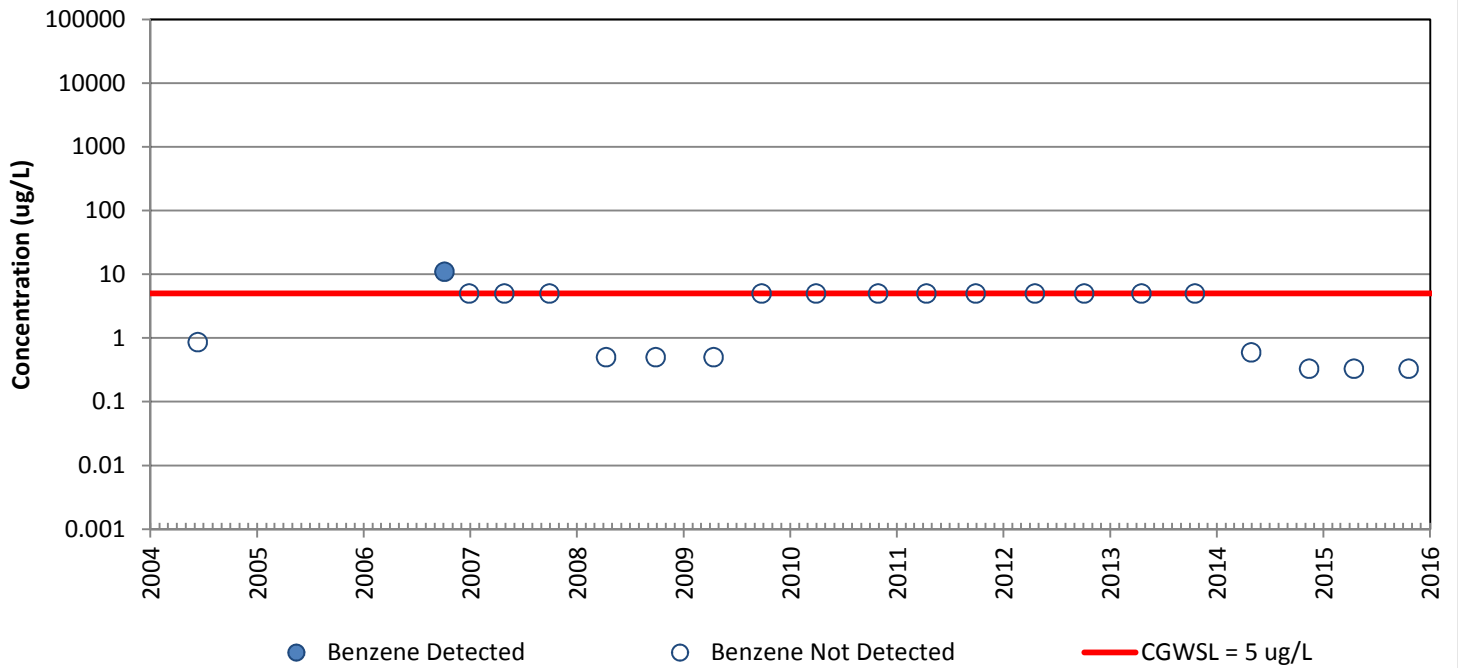


## DRO

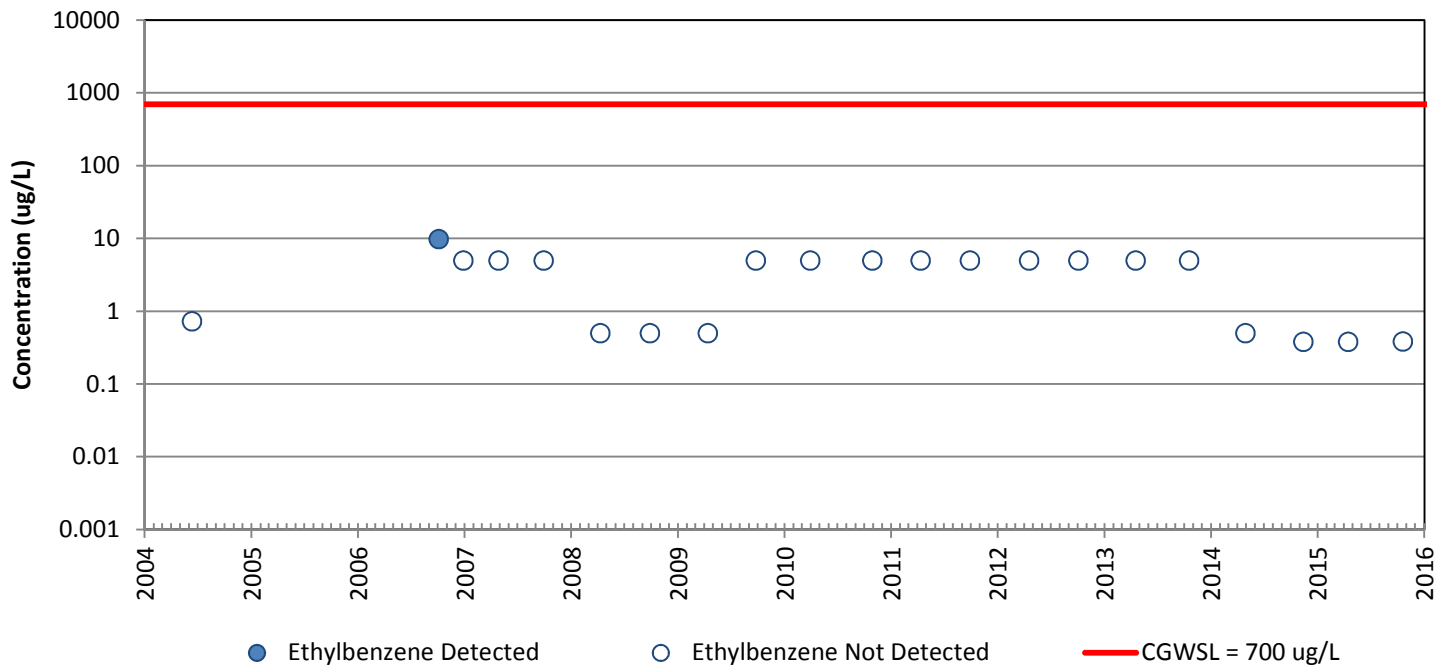


# MW-29

## Benzene

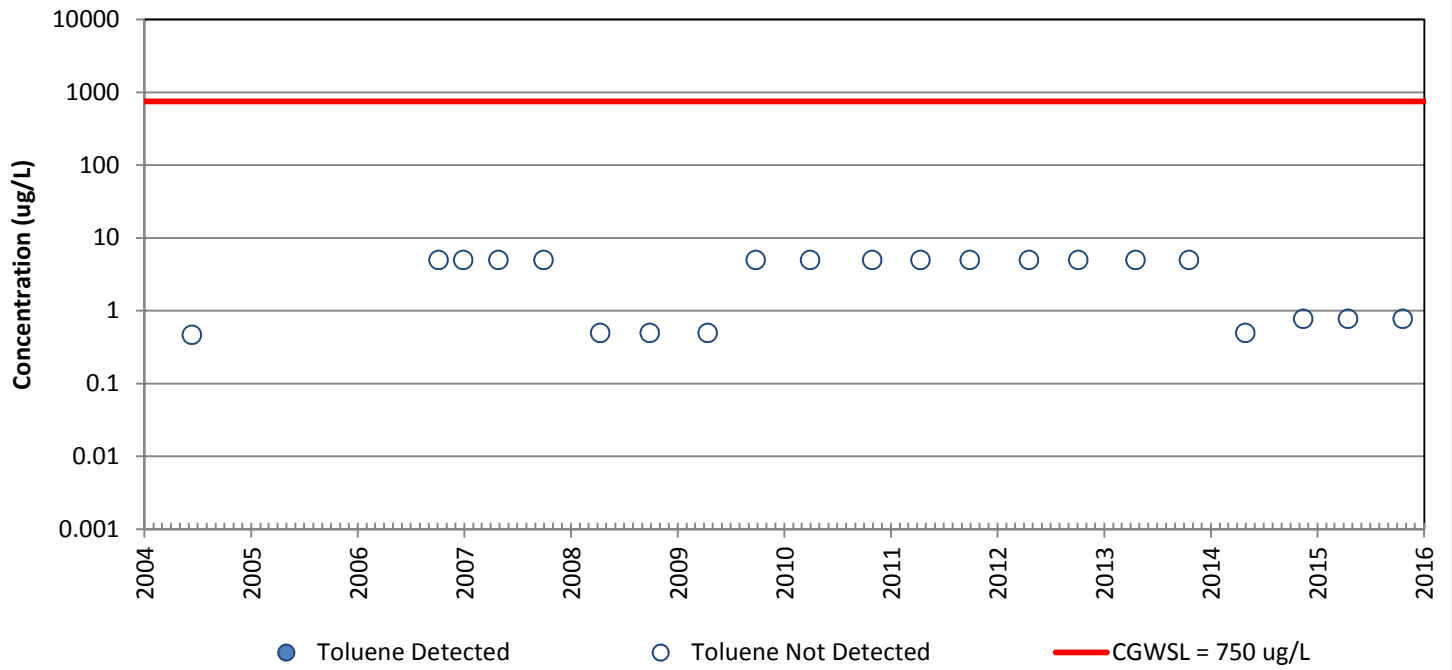


## Ethylbenzene

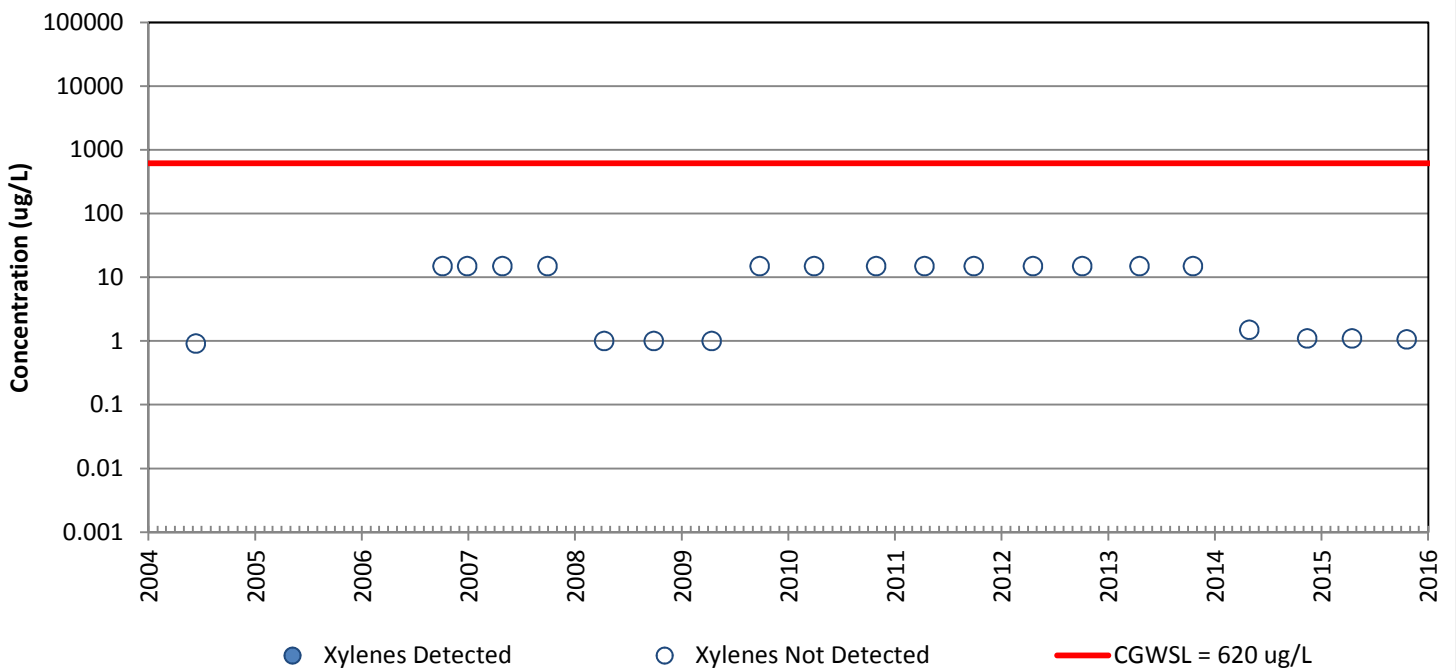


# MW-29

## Toluene

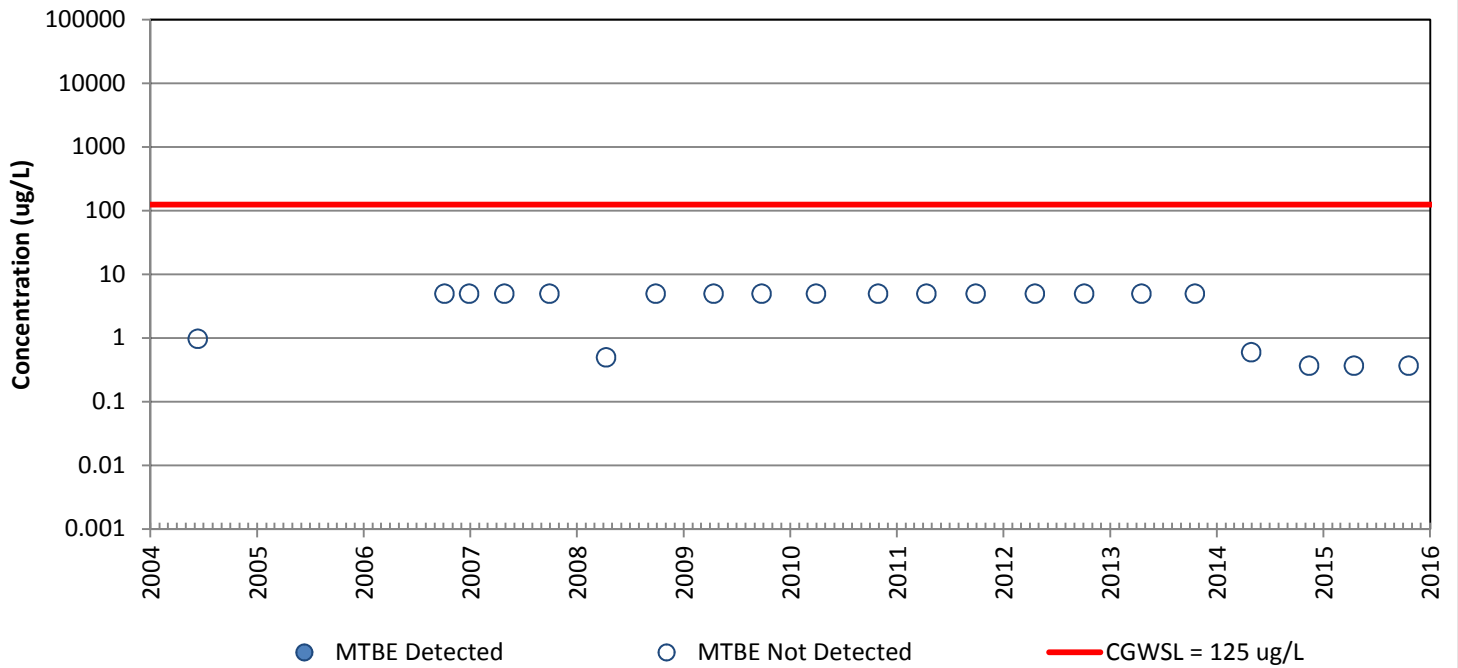


## Xylenes

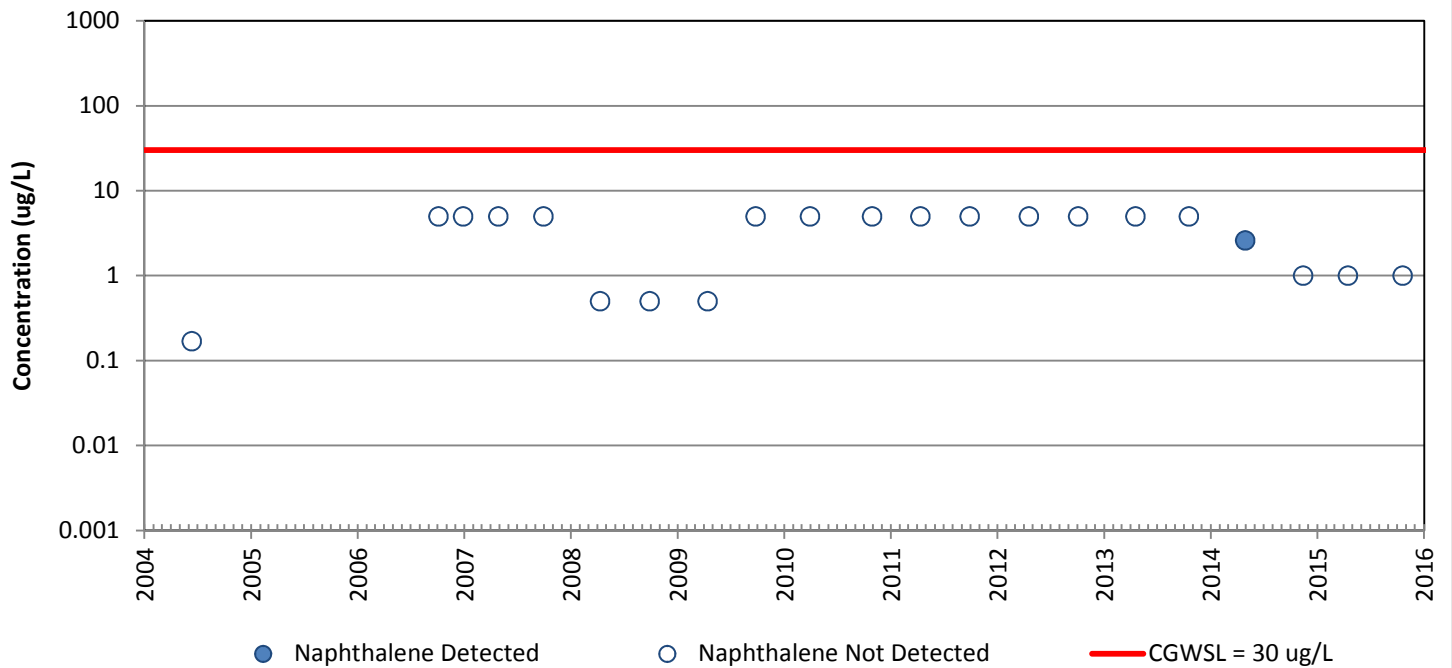


# MW-29

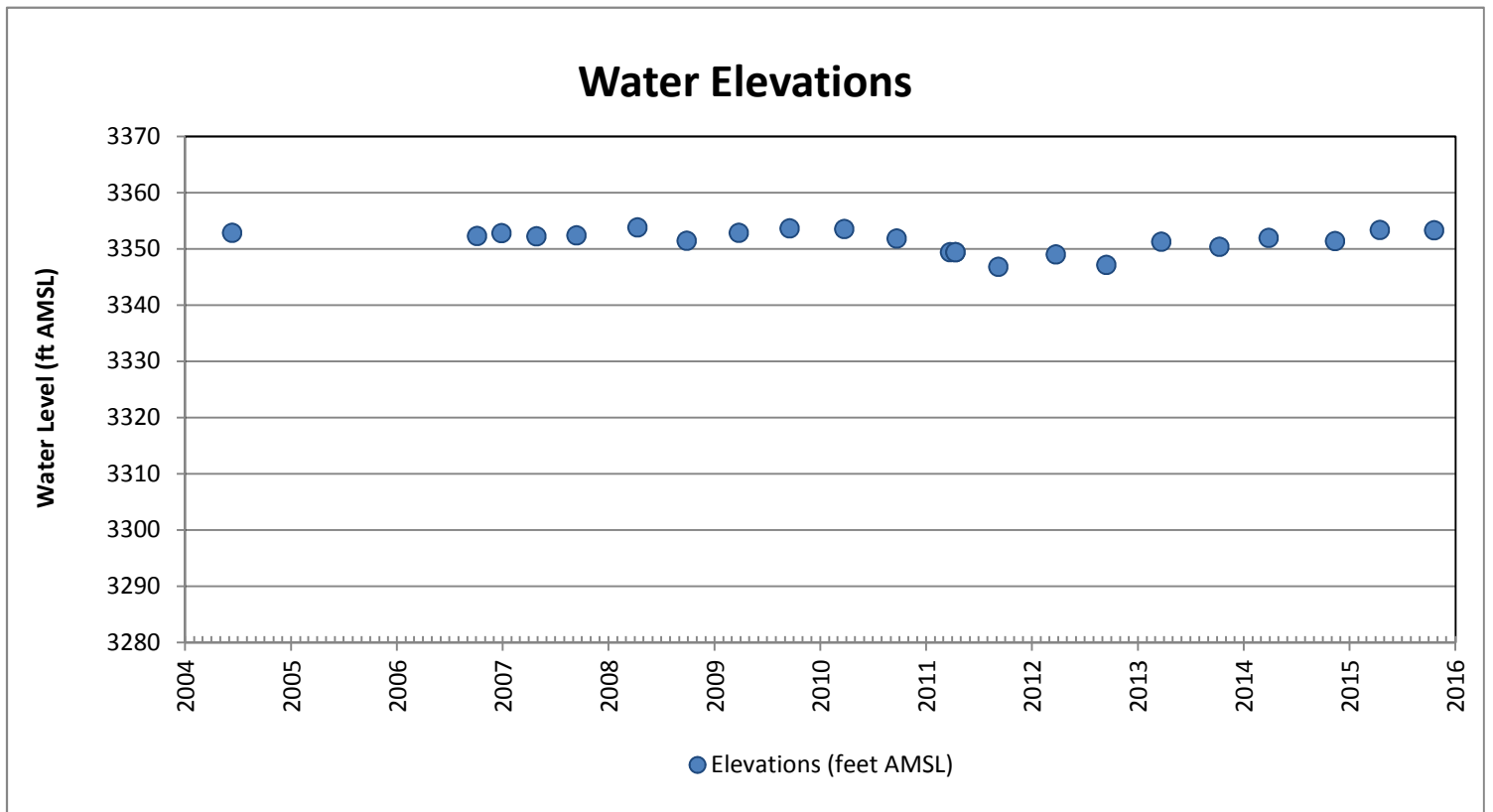
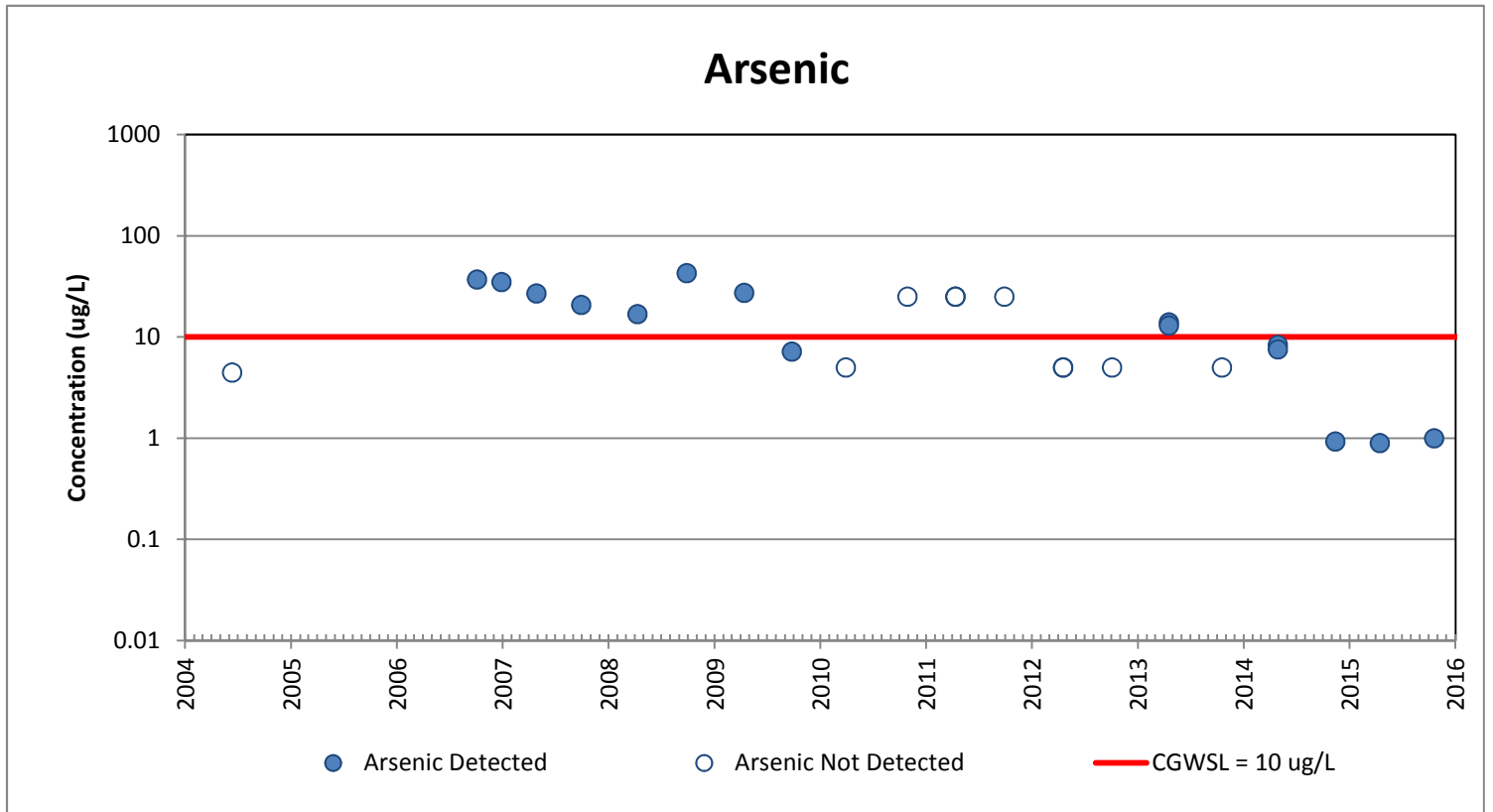
## MTBE



## Naphthalene

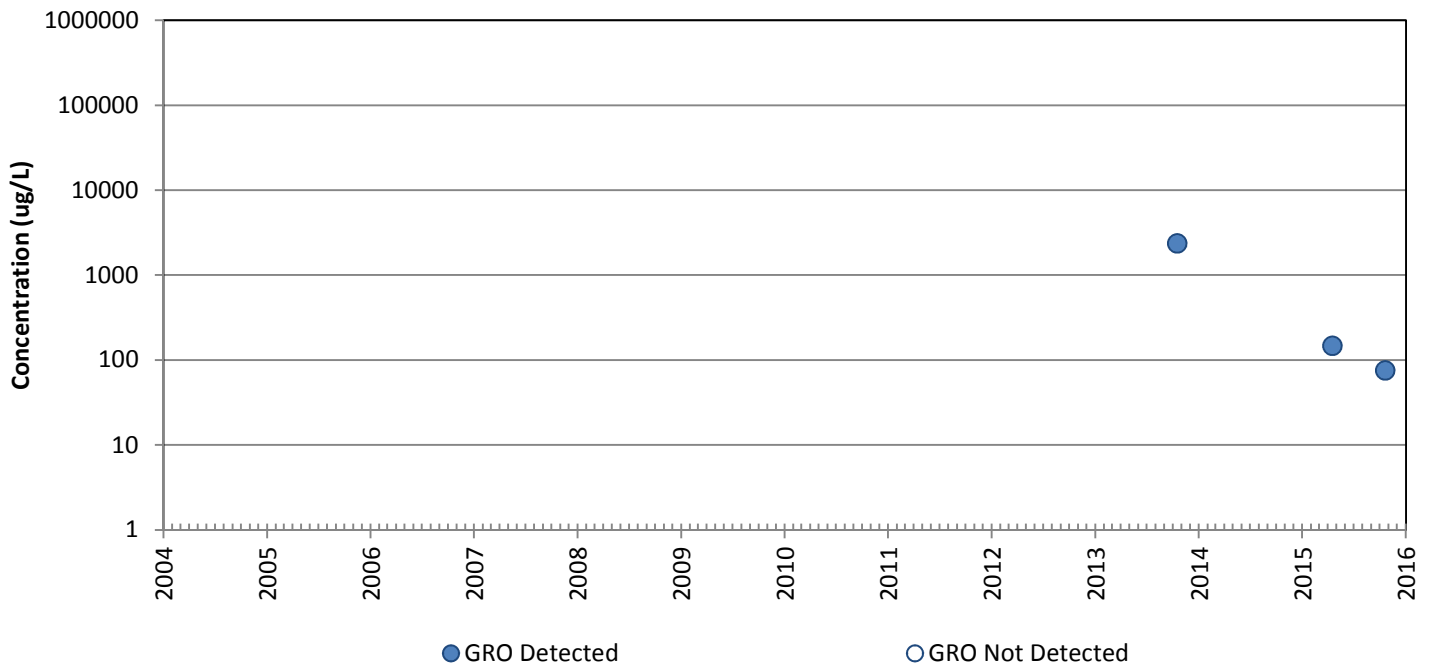


# MW-29

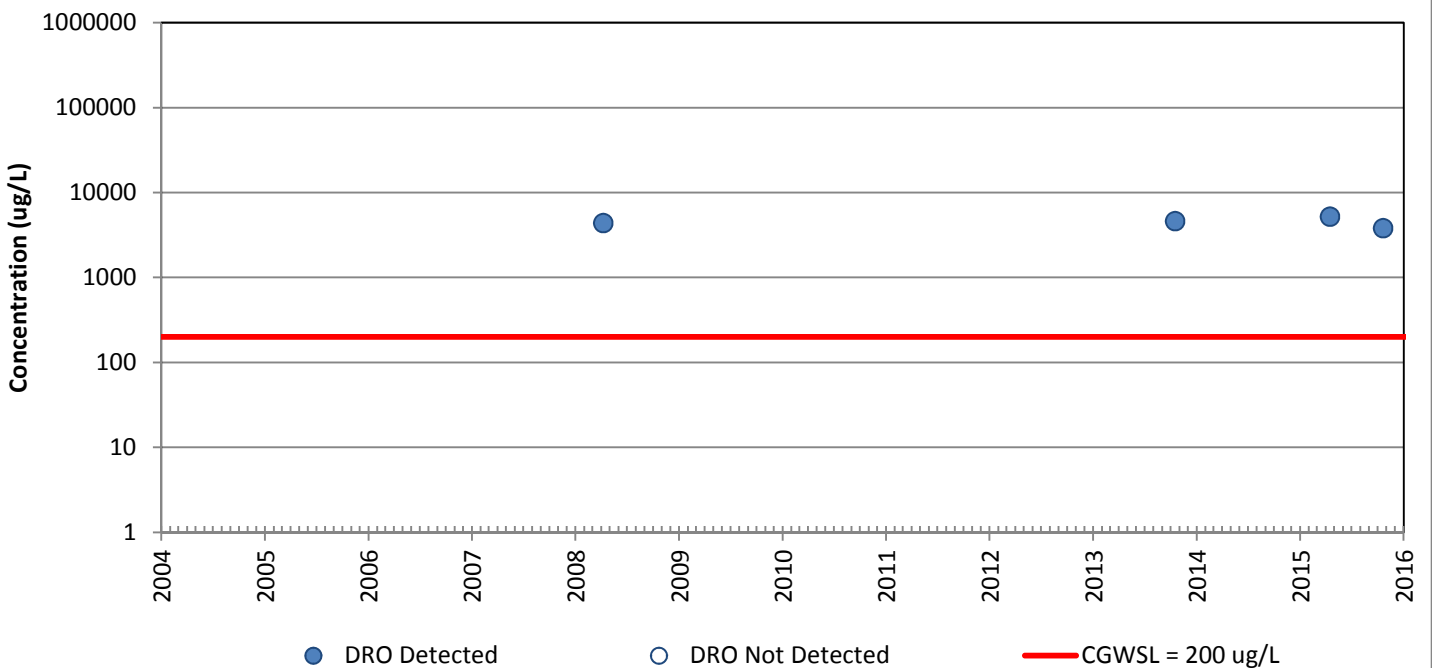


# MW-39

## GRO

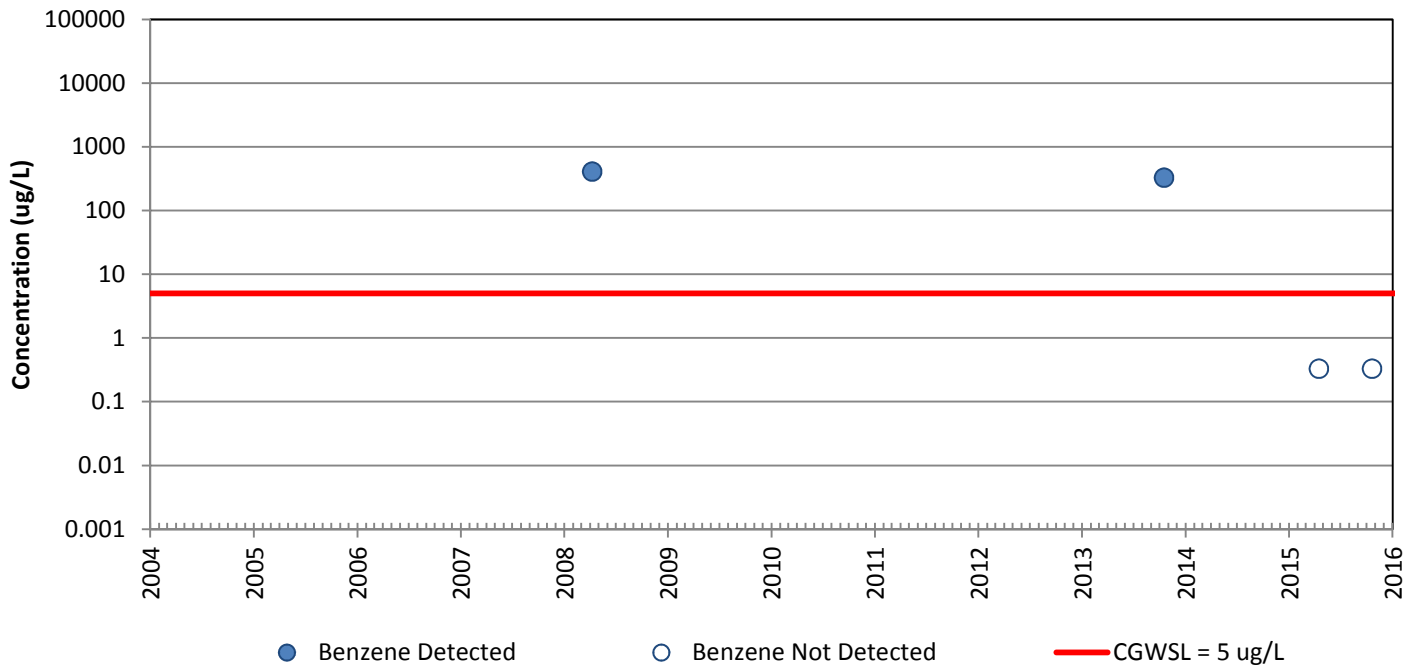


## DRO

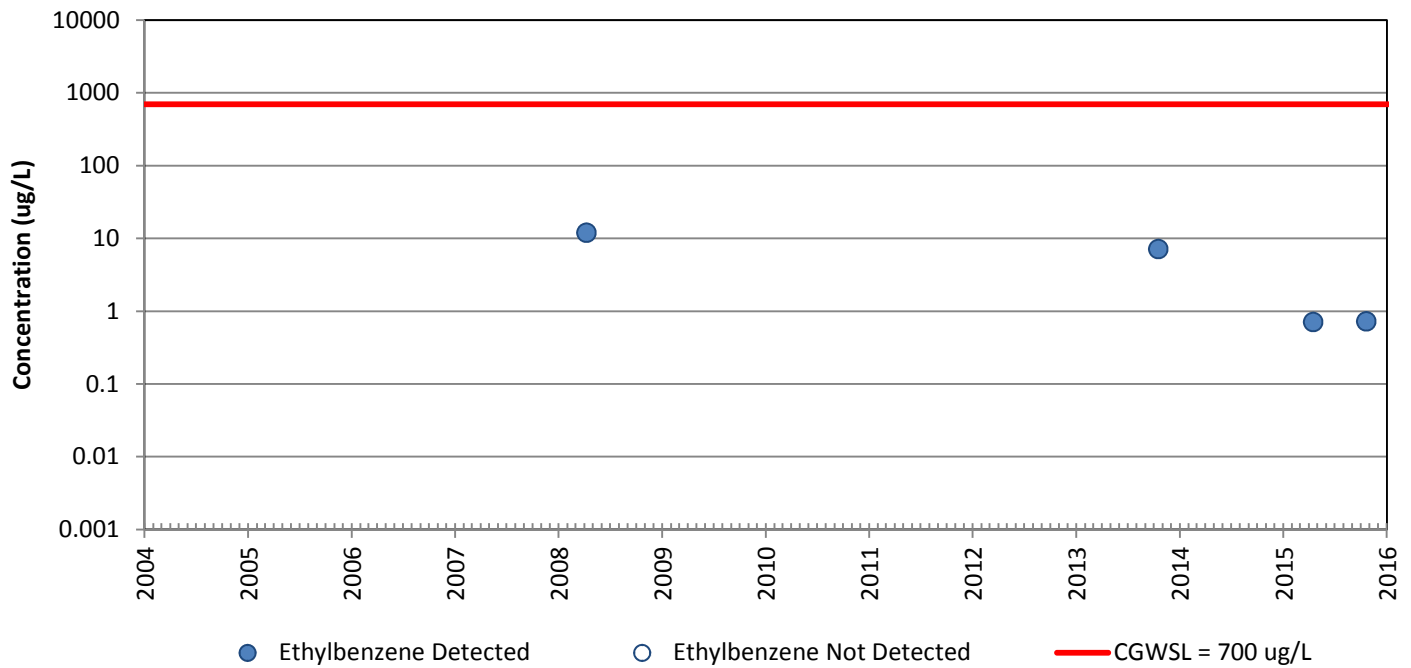


# MW-39

## Benzene

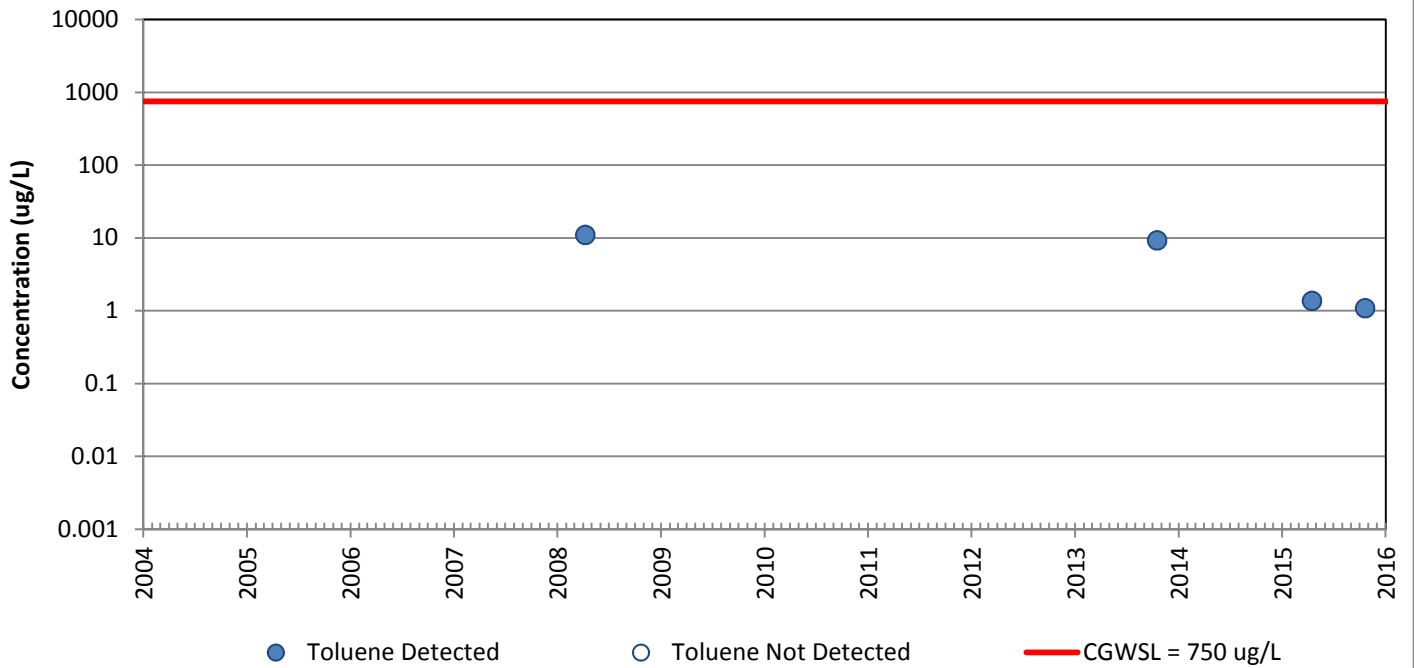


## Ethylbenzene

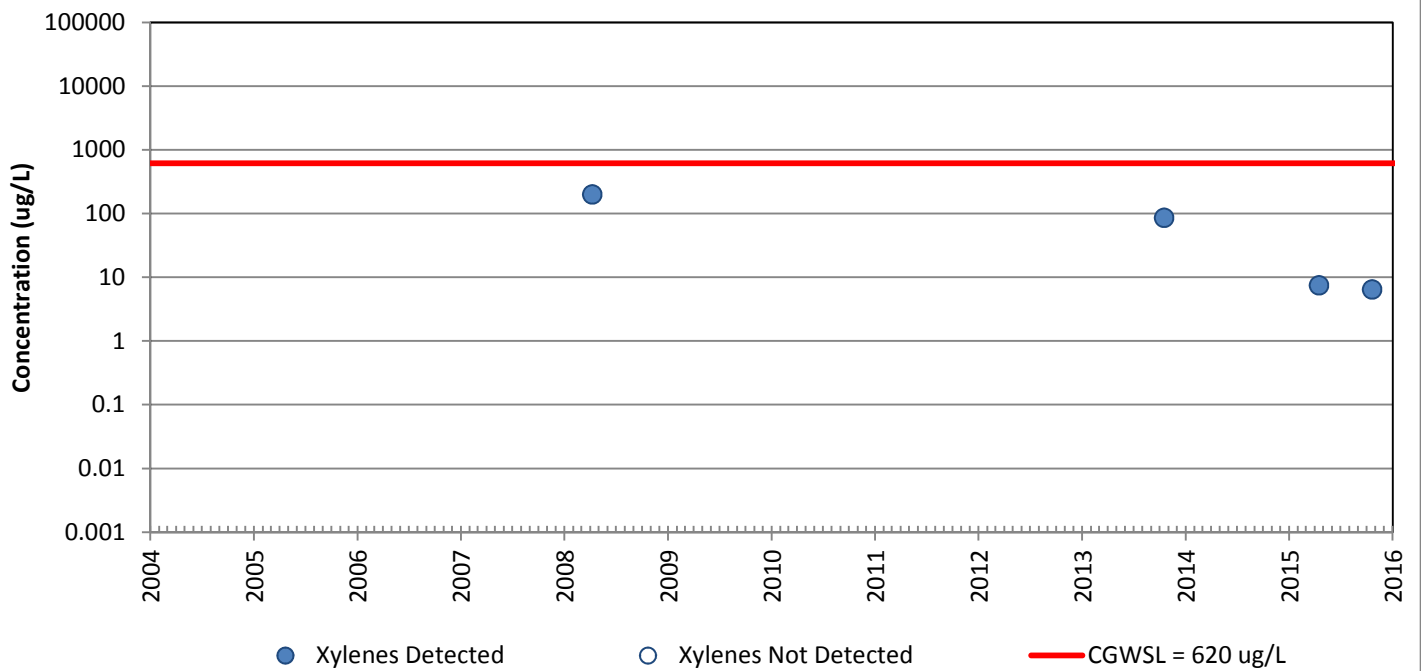


# MW-39

## Toluene

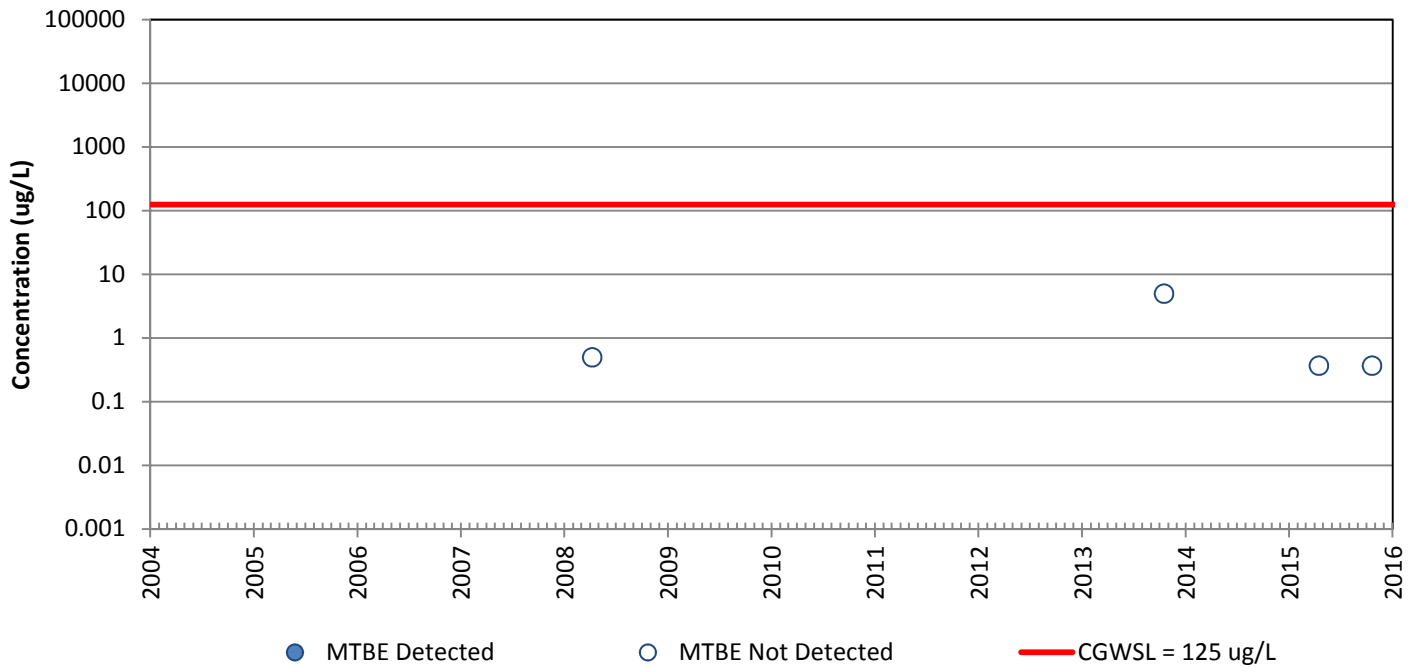


## Xylenes

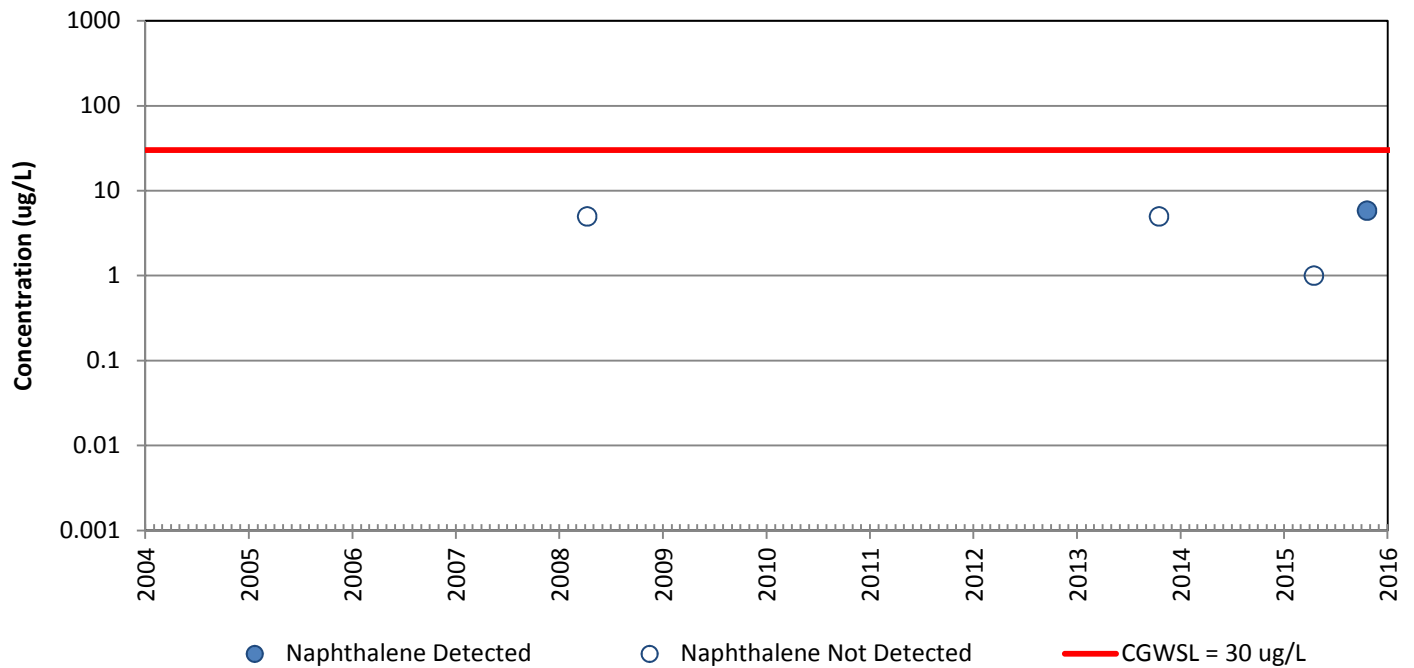


# MW-39

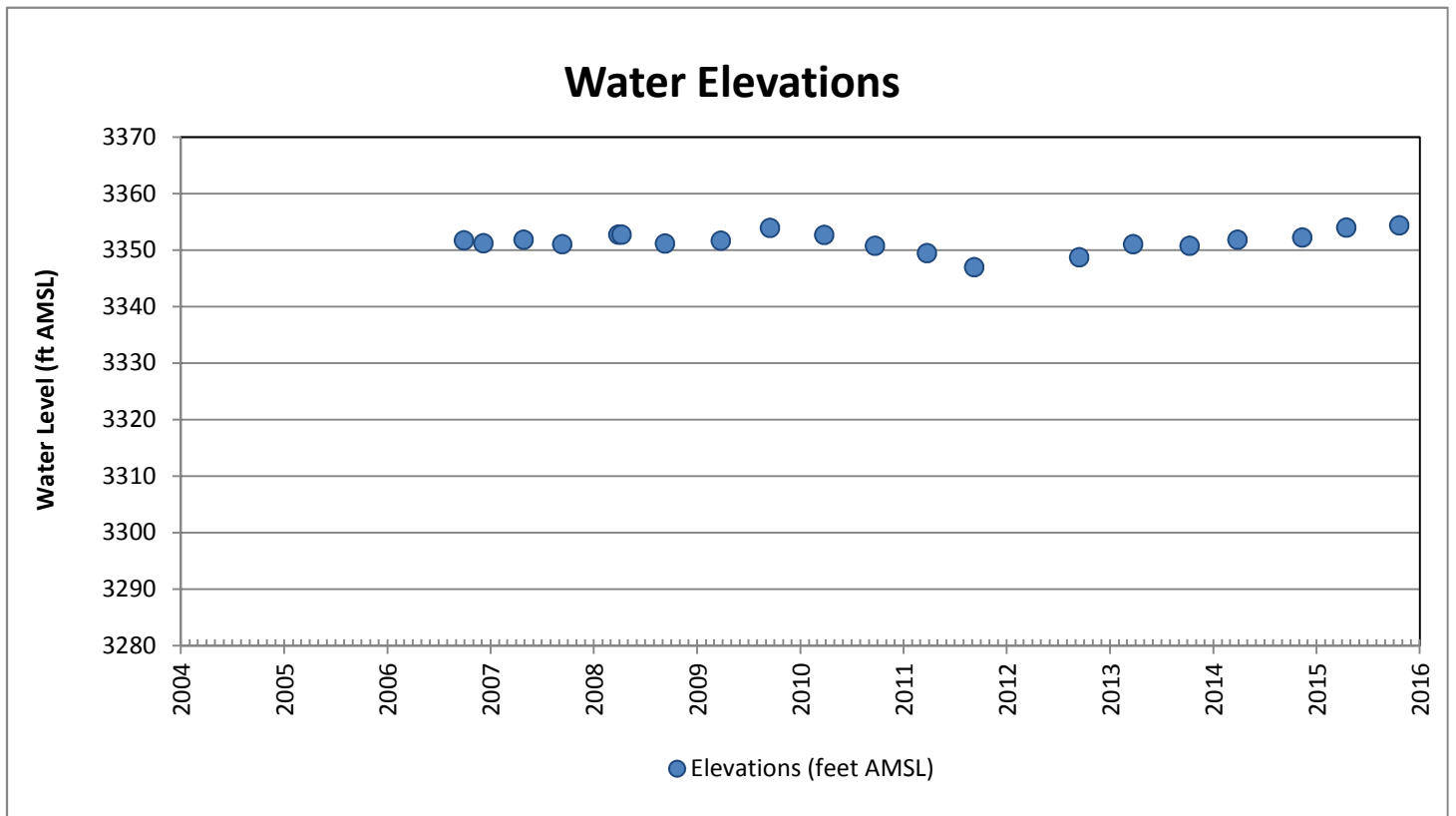
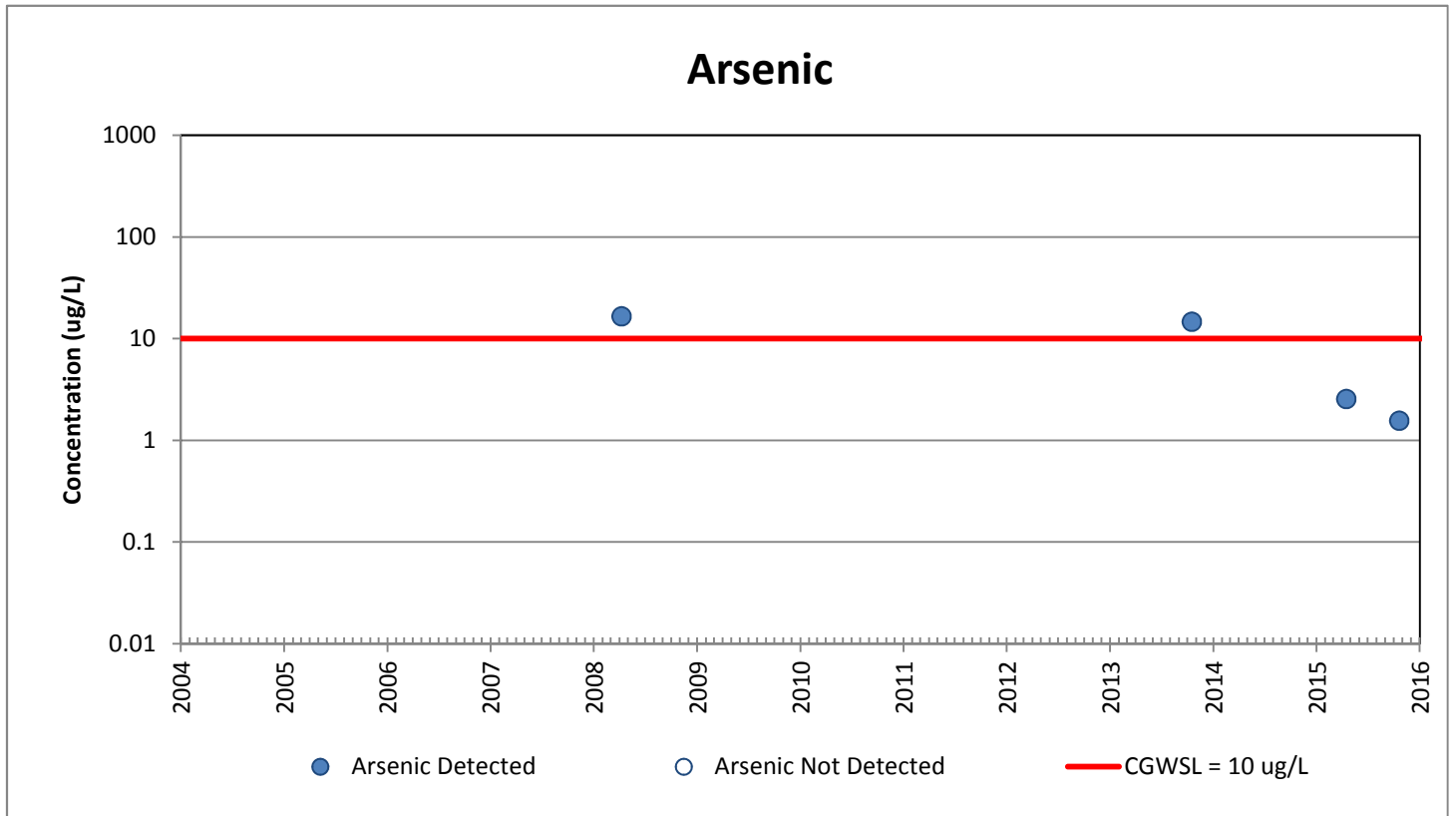
## MTBE



## Naphthalene

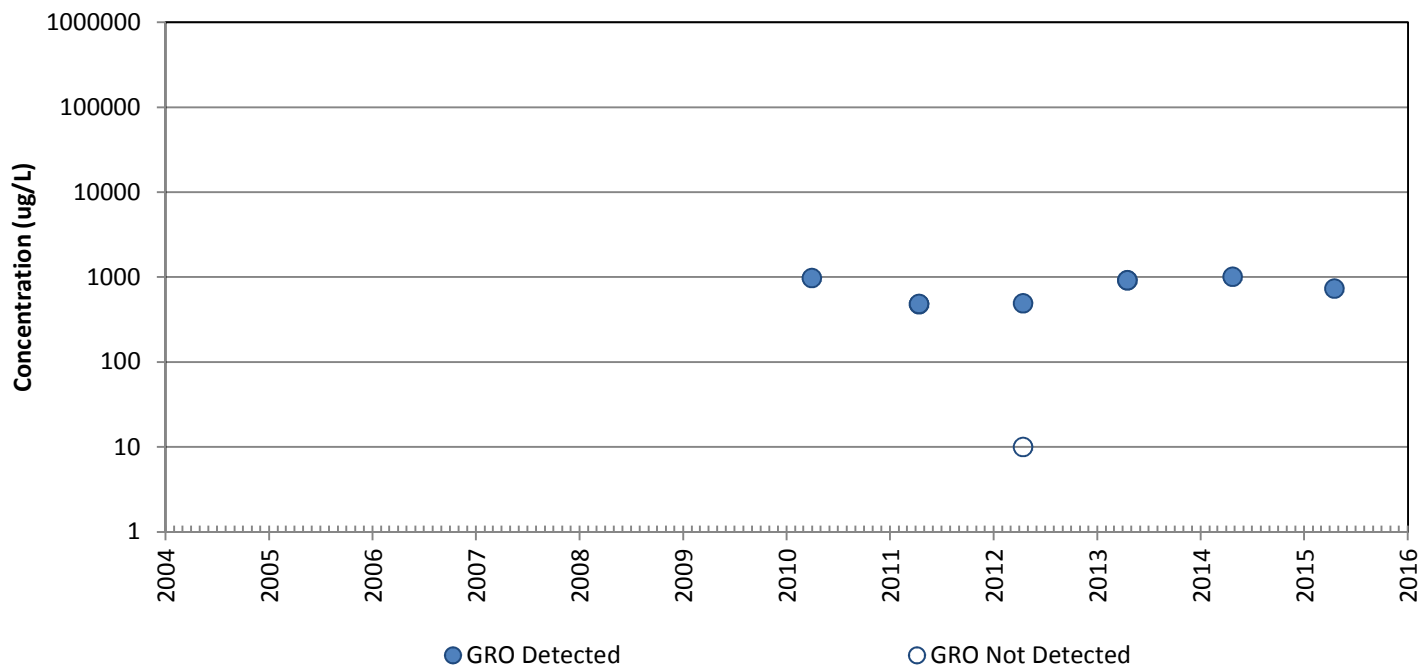


# MW-39

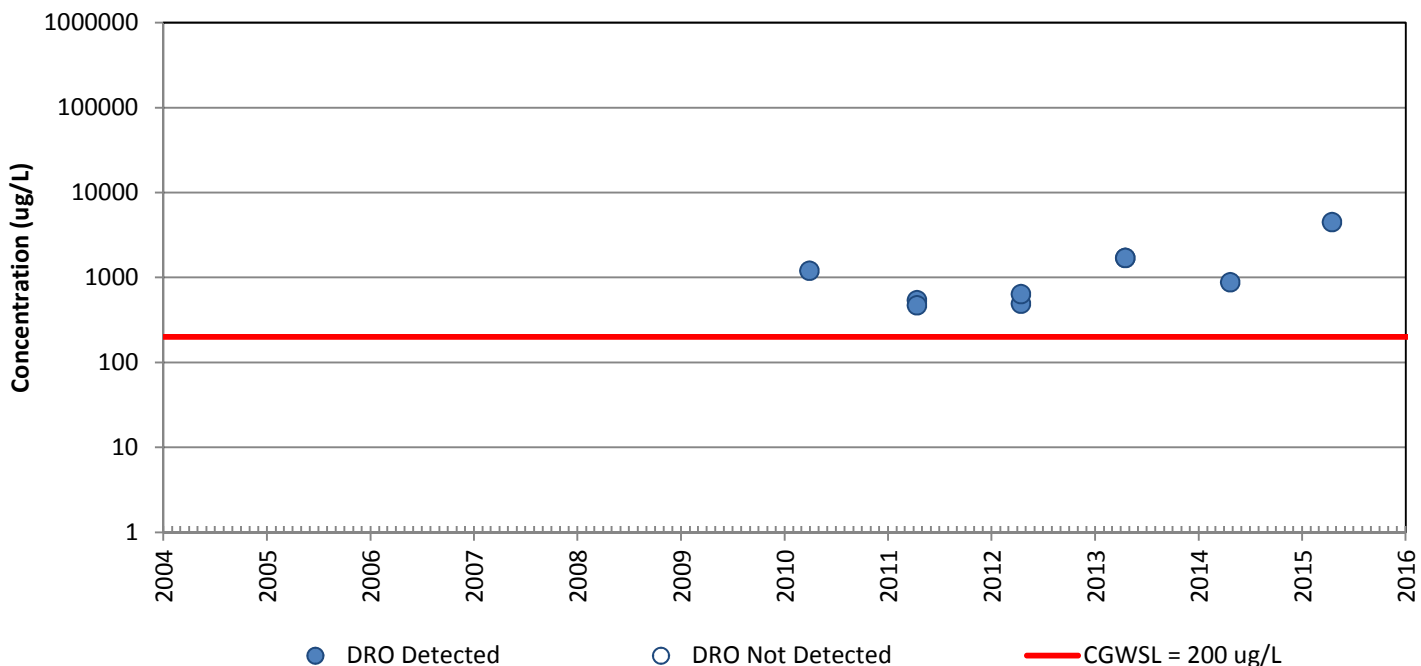


# MW-40

## GRO

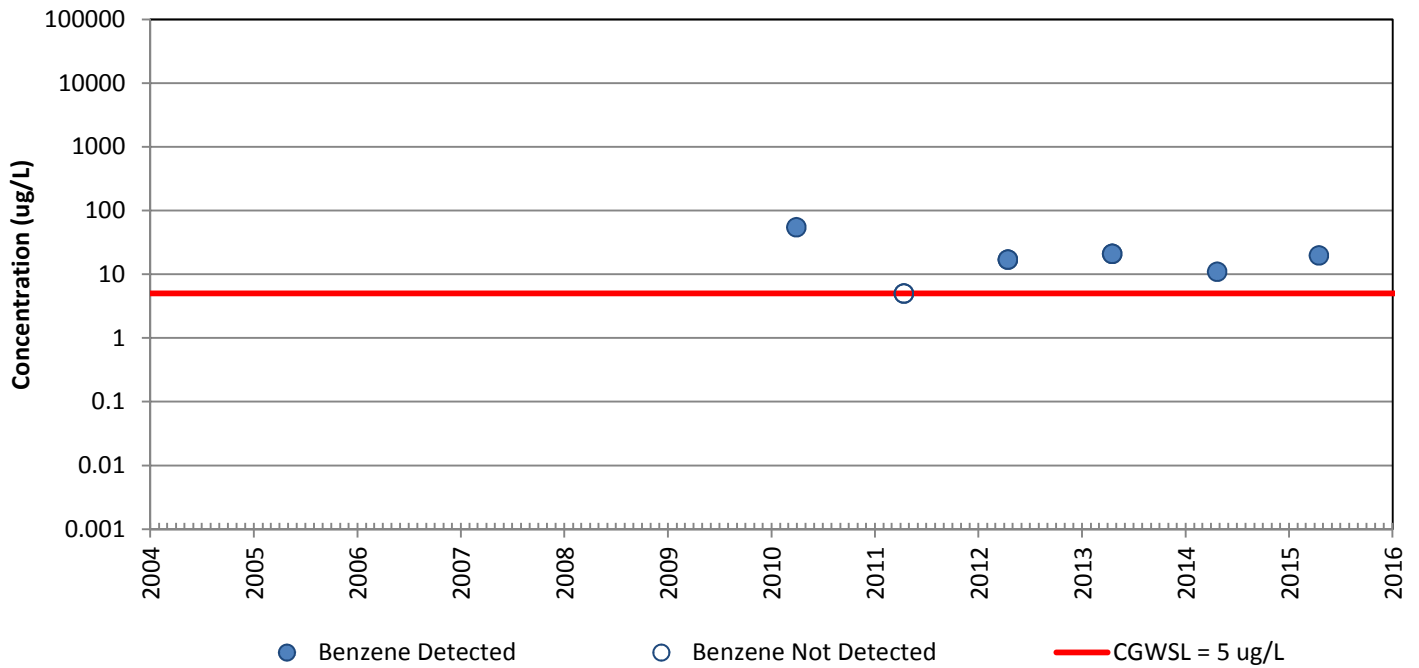


## DRO

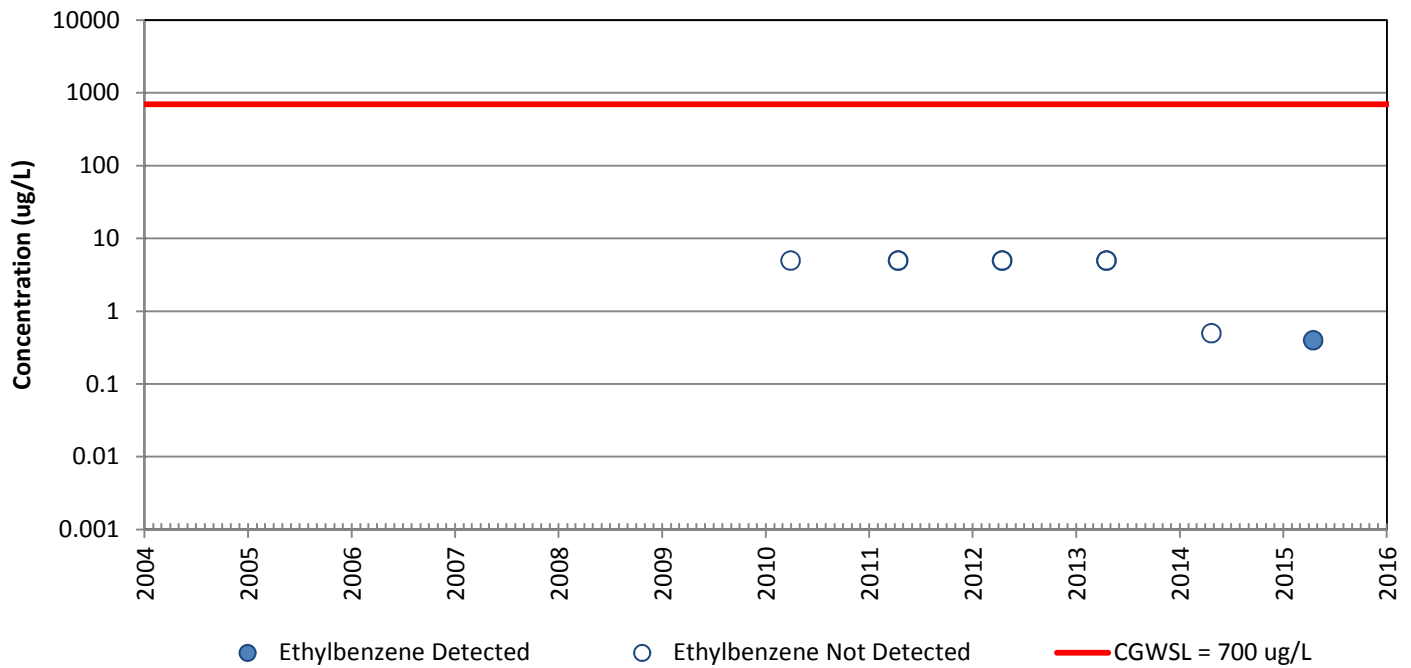


# MW-40

## Benzene

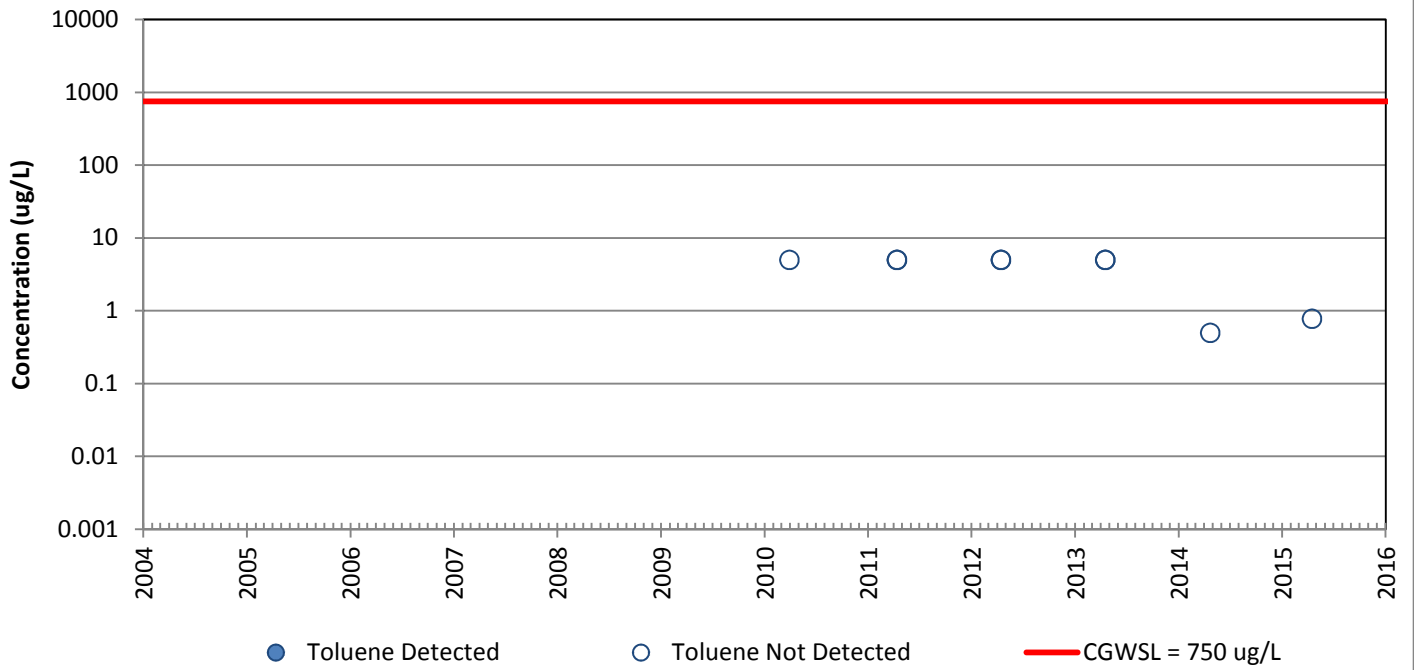


## Ethylbenzene

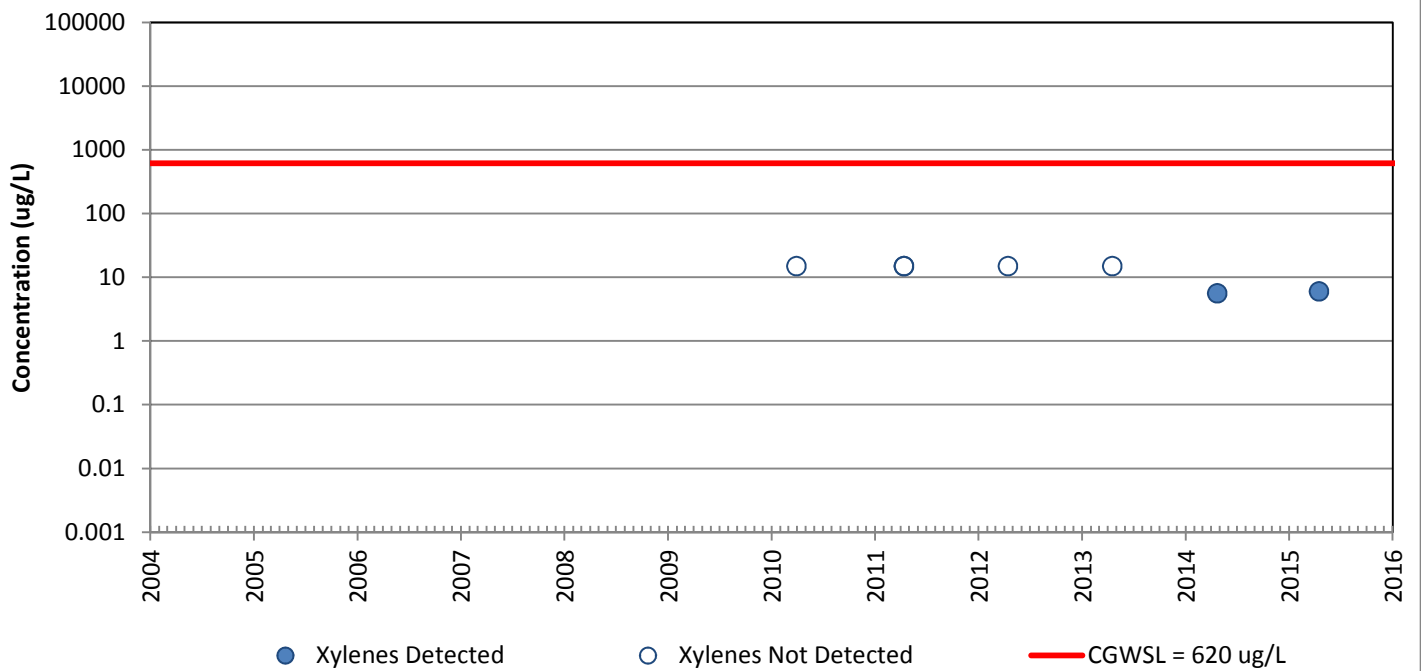


# MW-40

## Toluene

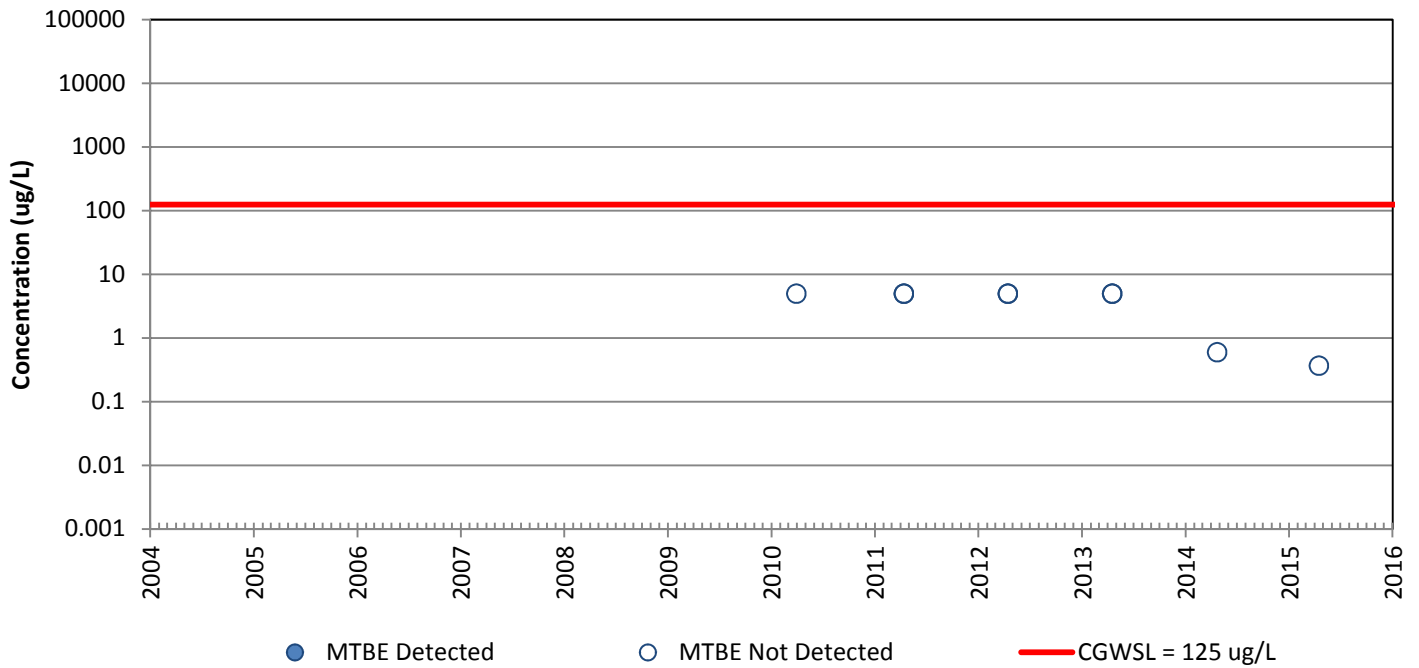


## Xylenes

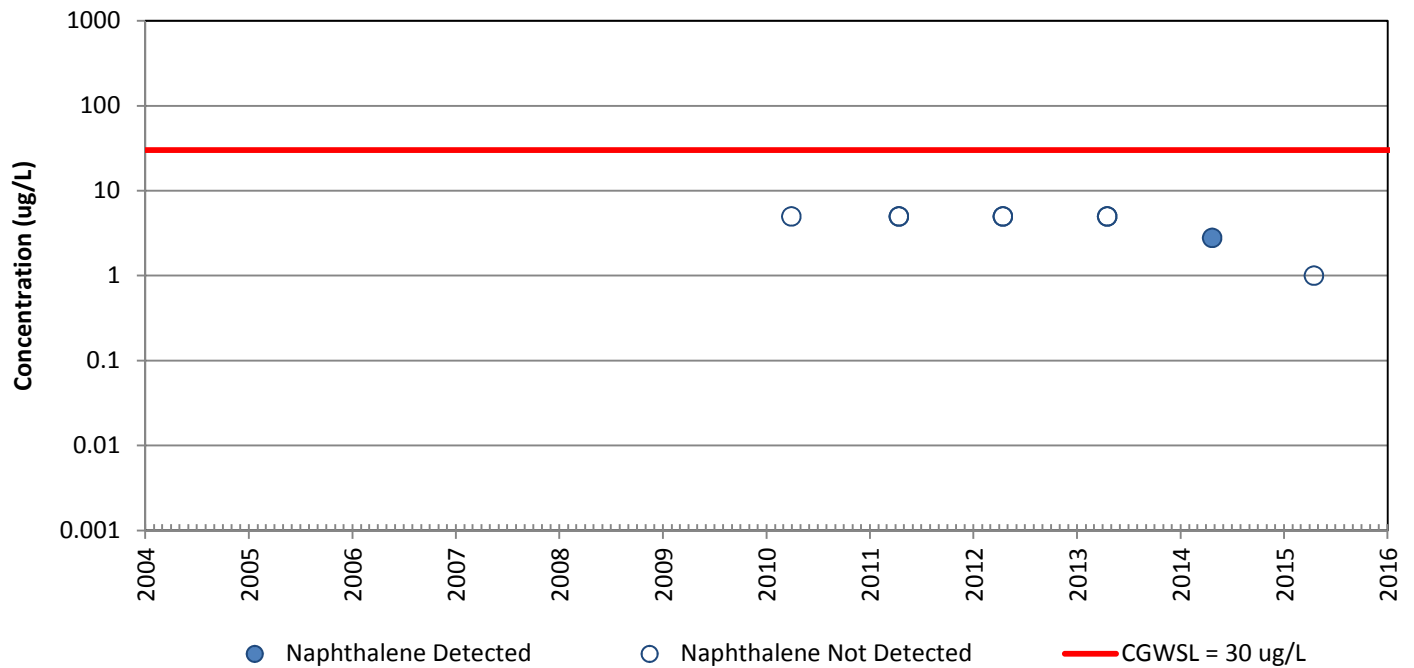


# MW-40

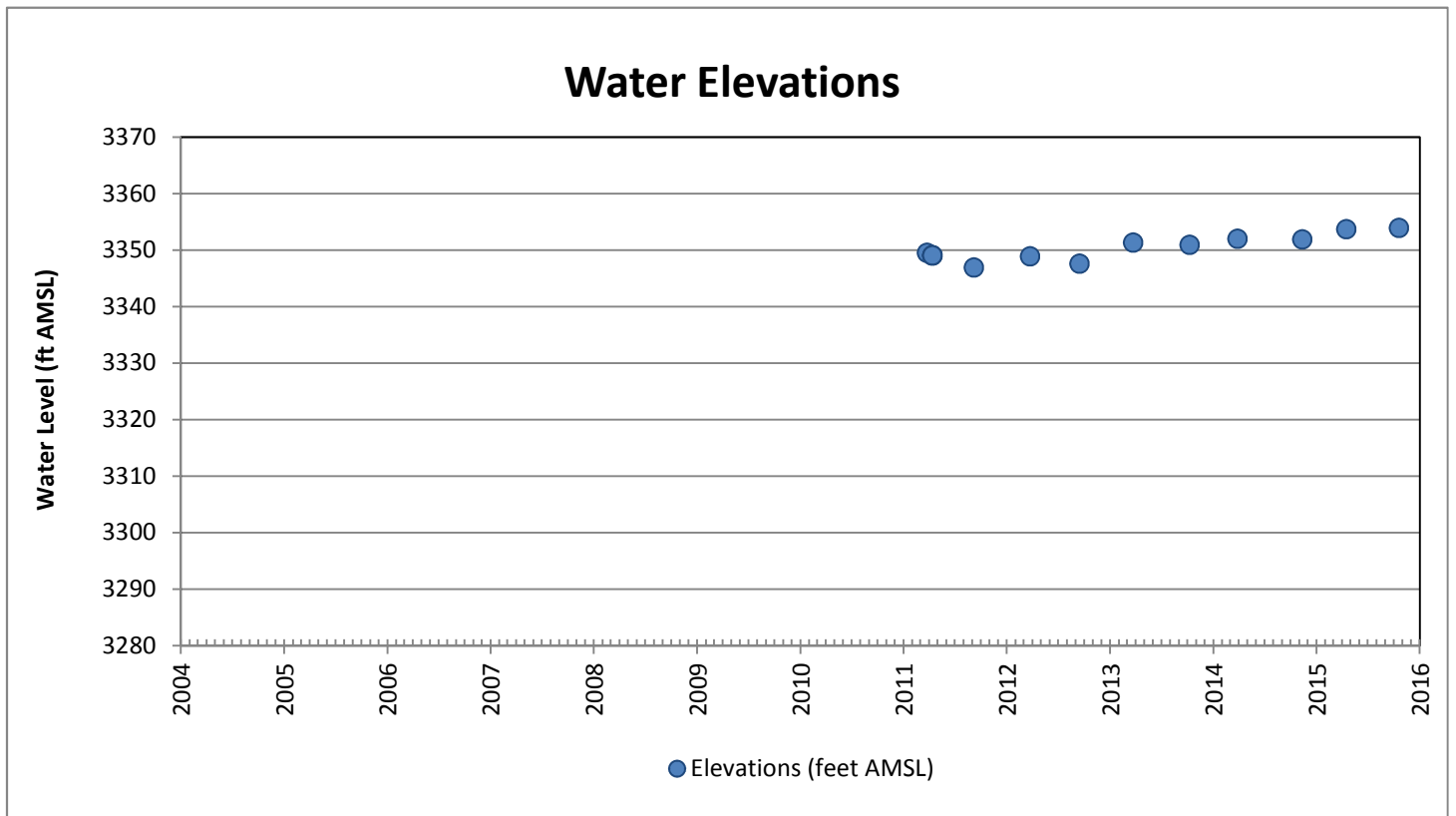
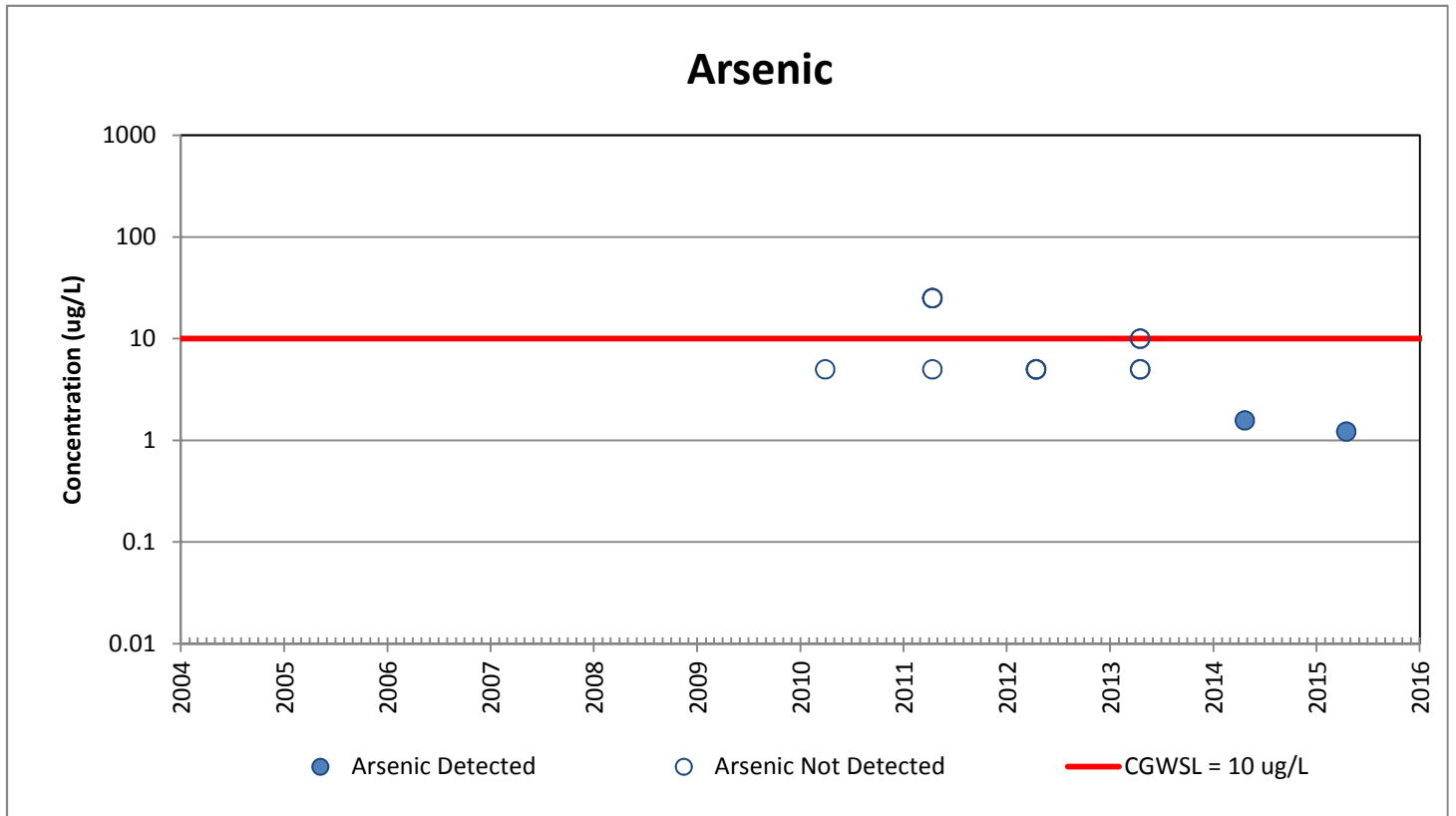
## MTBE



## Naphthalene

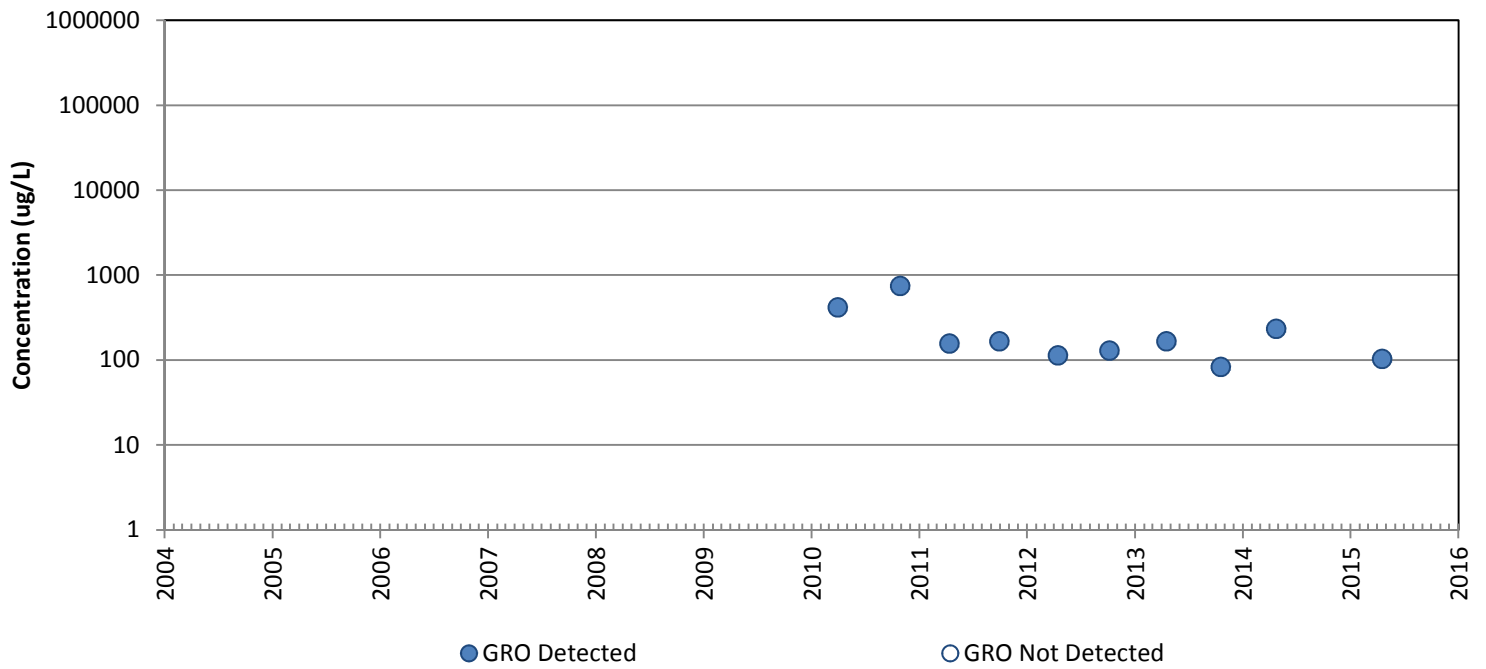


# MW-40

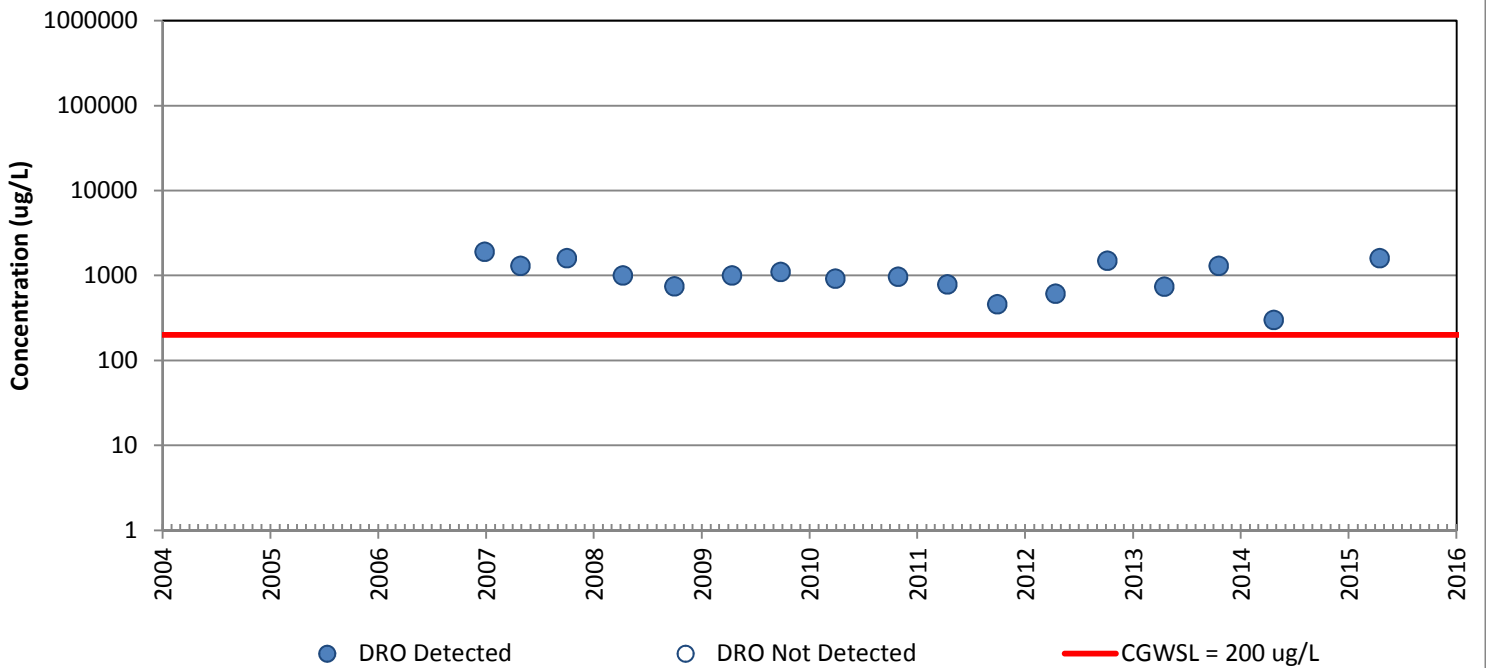


# MW-41

## GRO

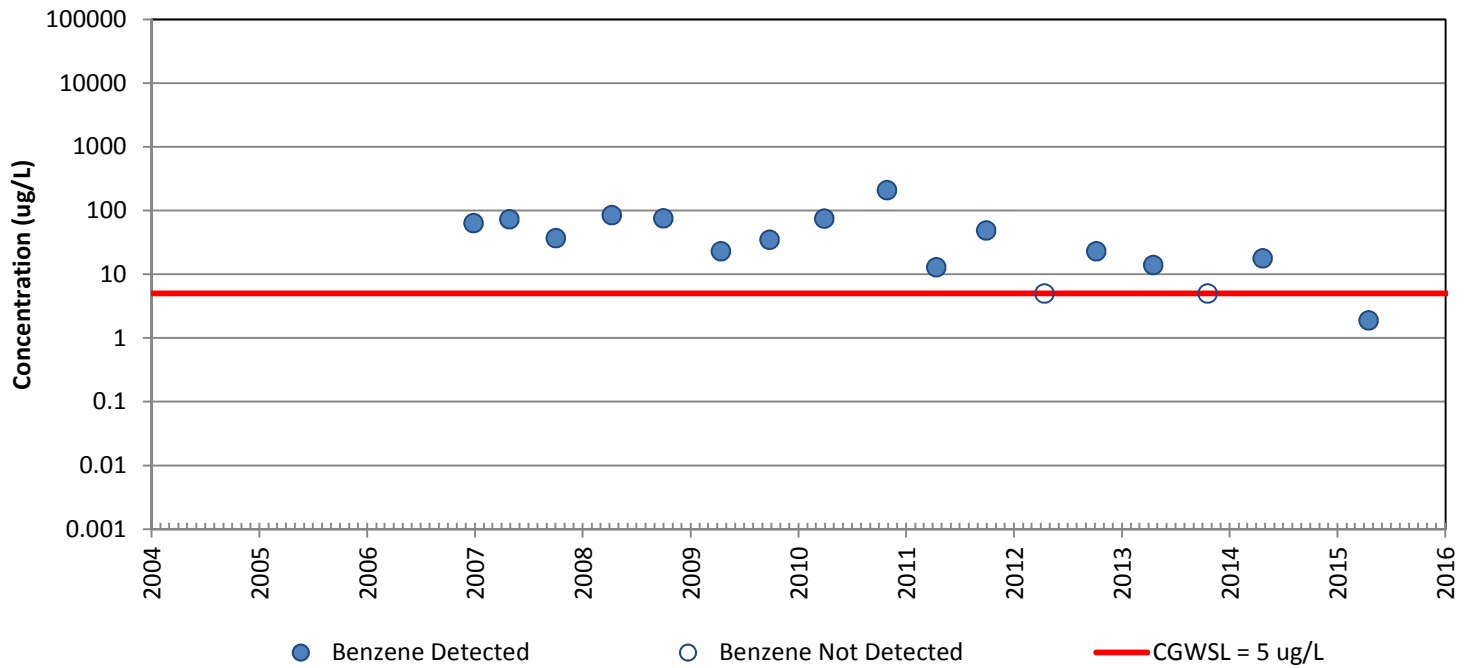


## DRO

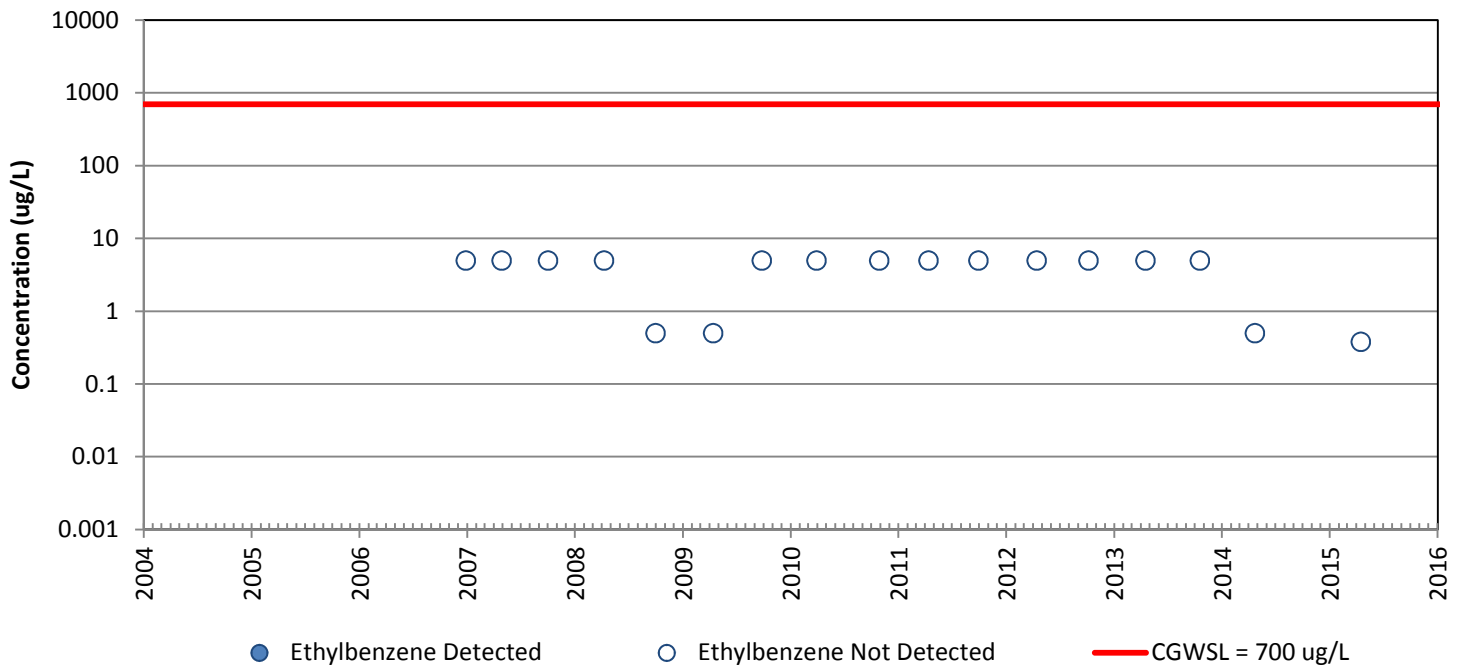


# MW-41

## Benzene

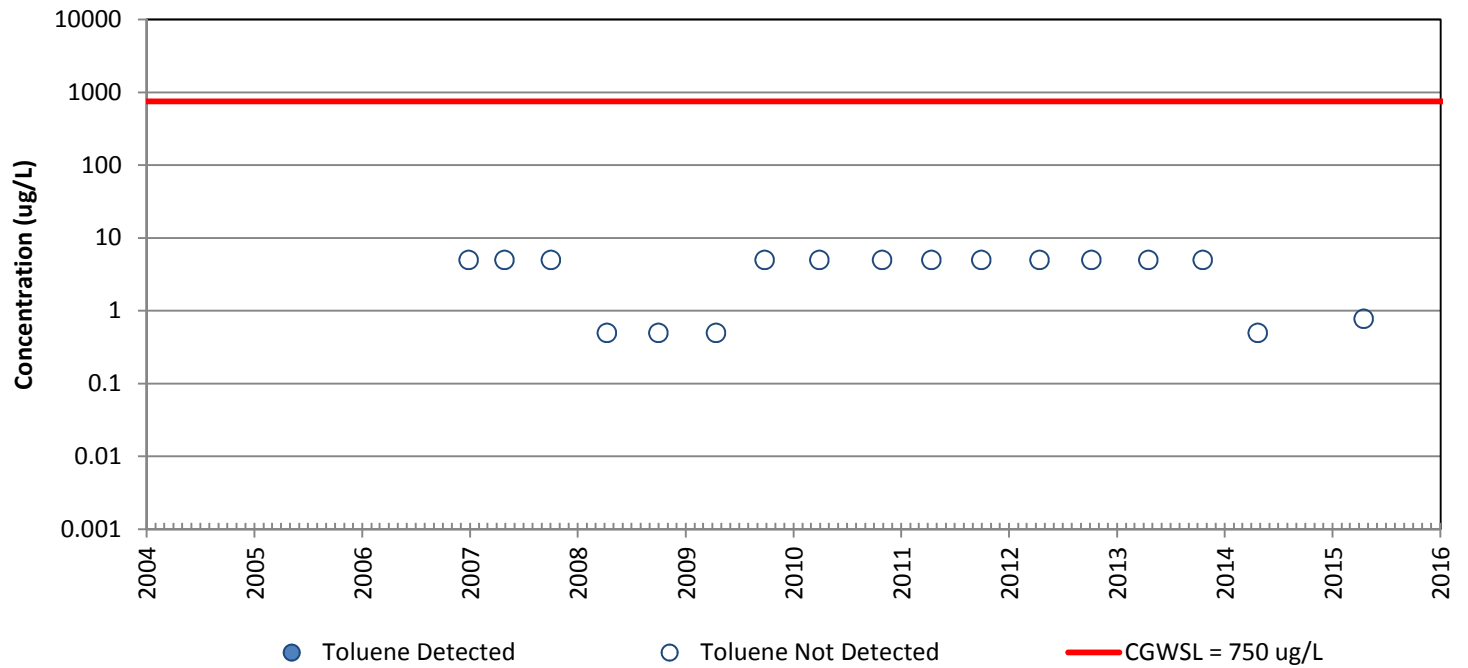


## Ethylbenzene

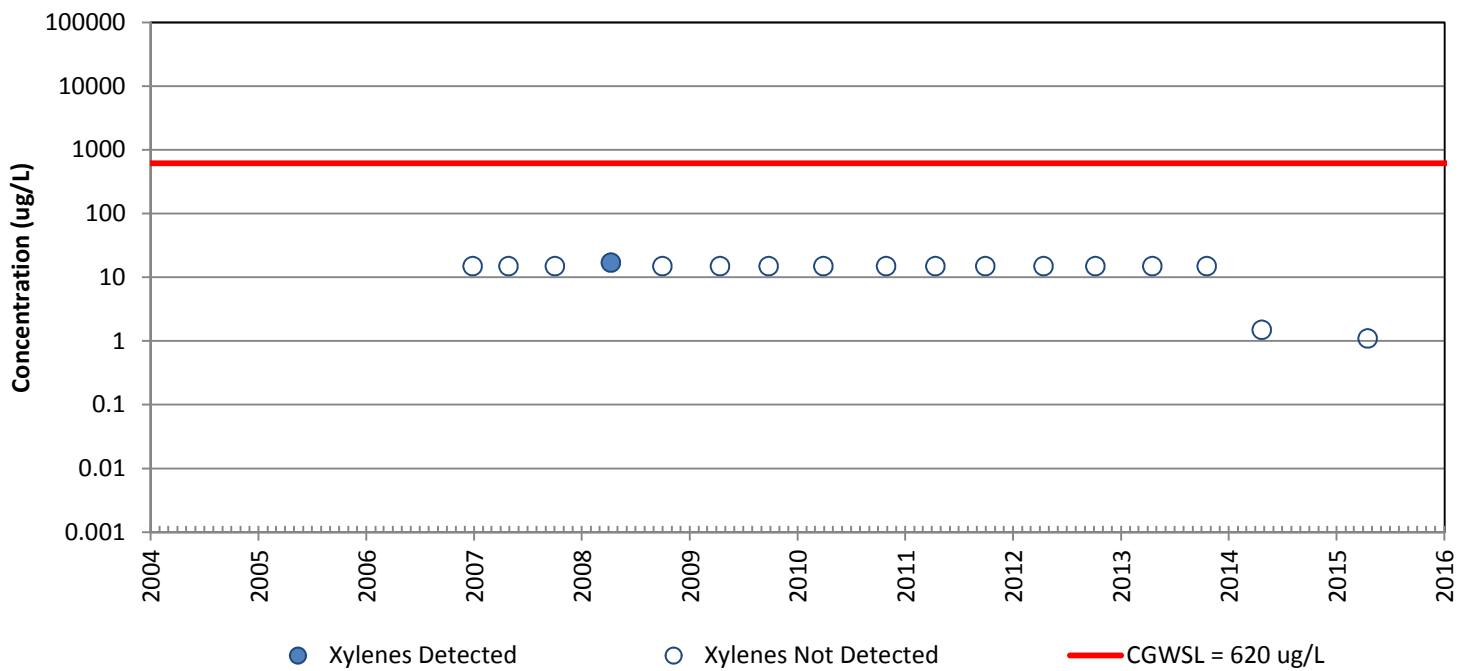


# MW-41

## Toluene

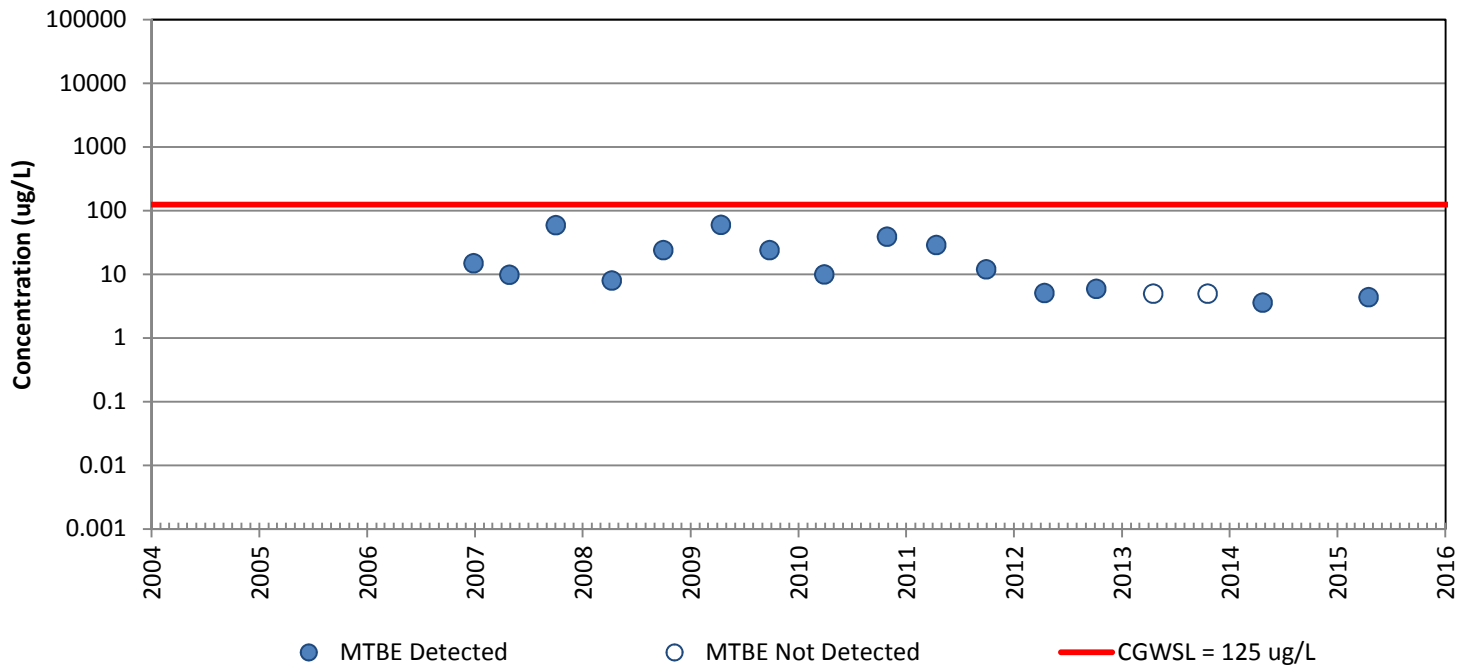


## Xylenes

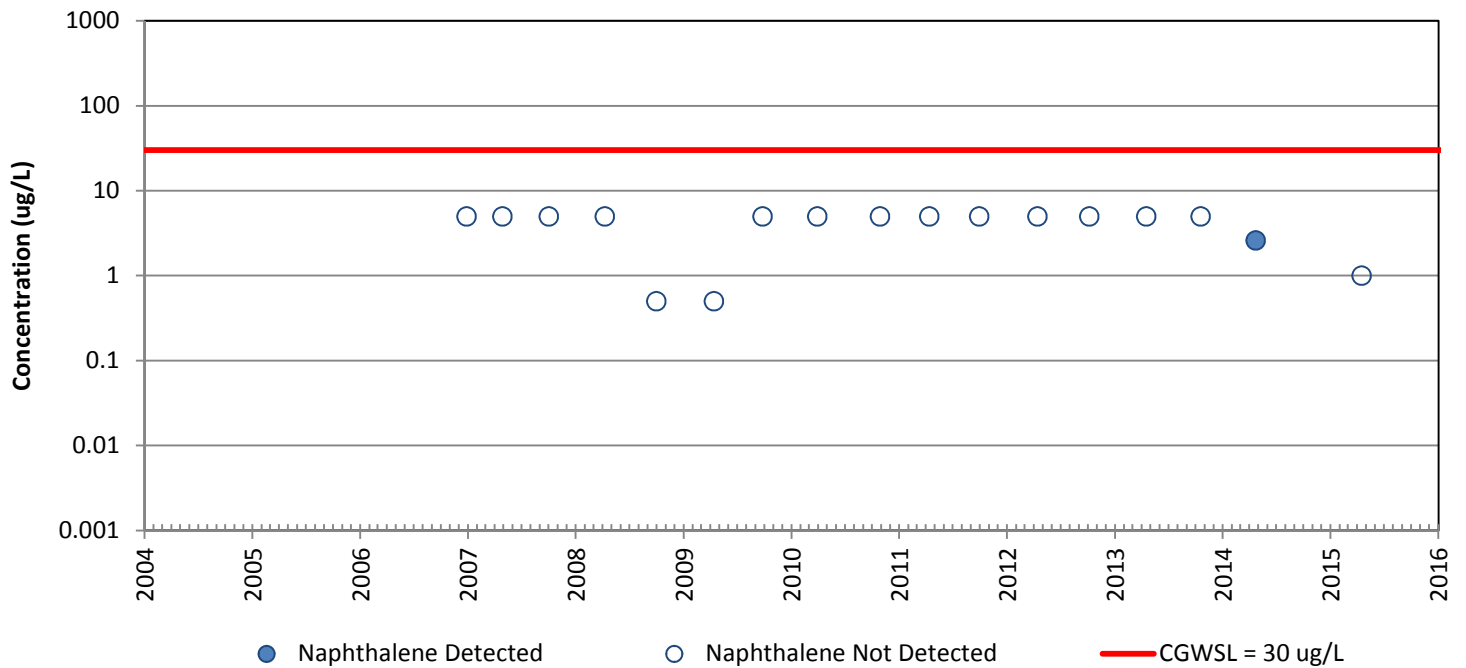


# MW-41

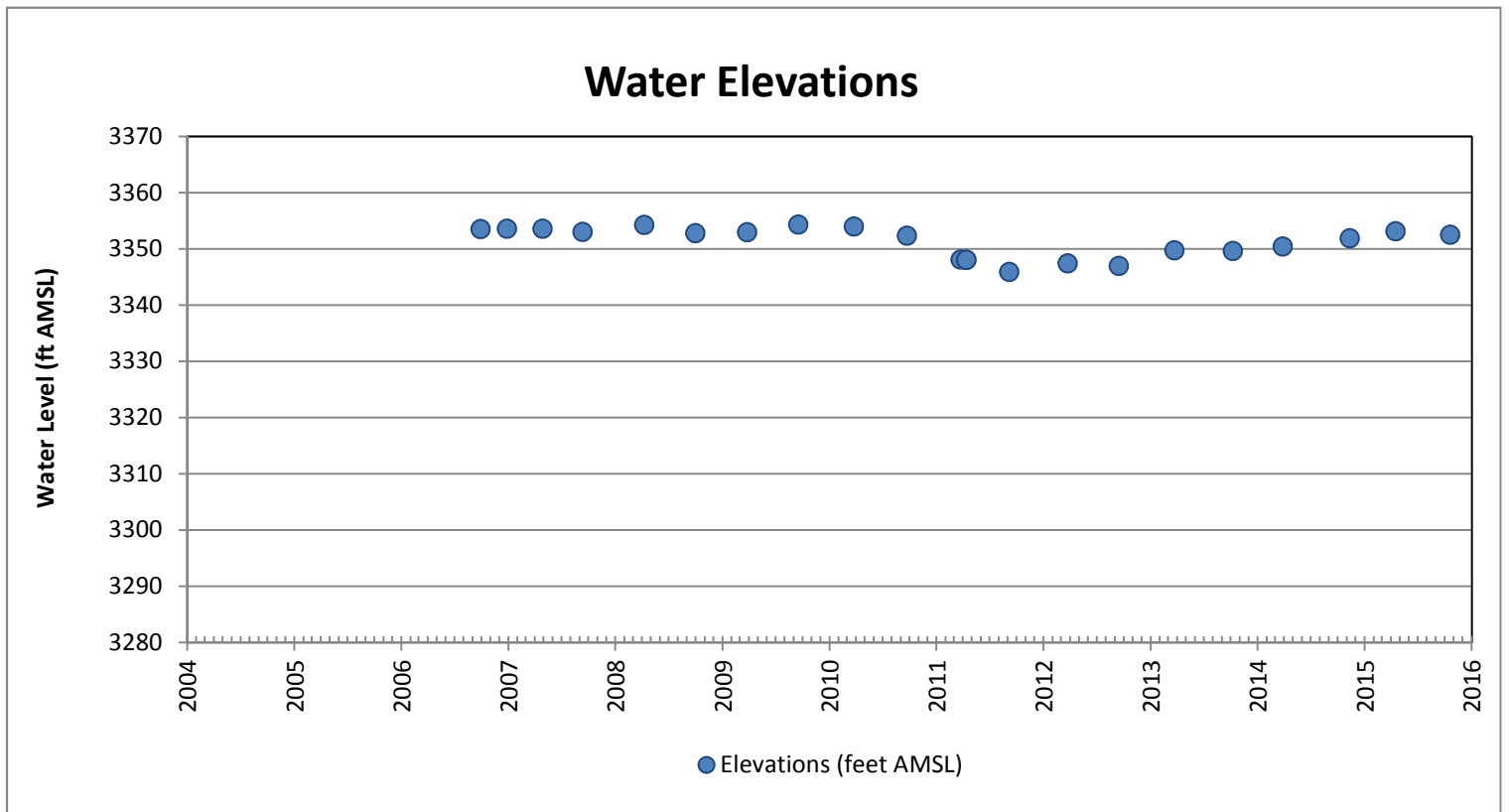
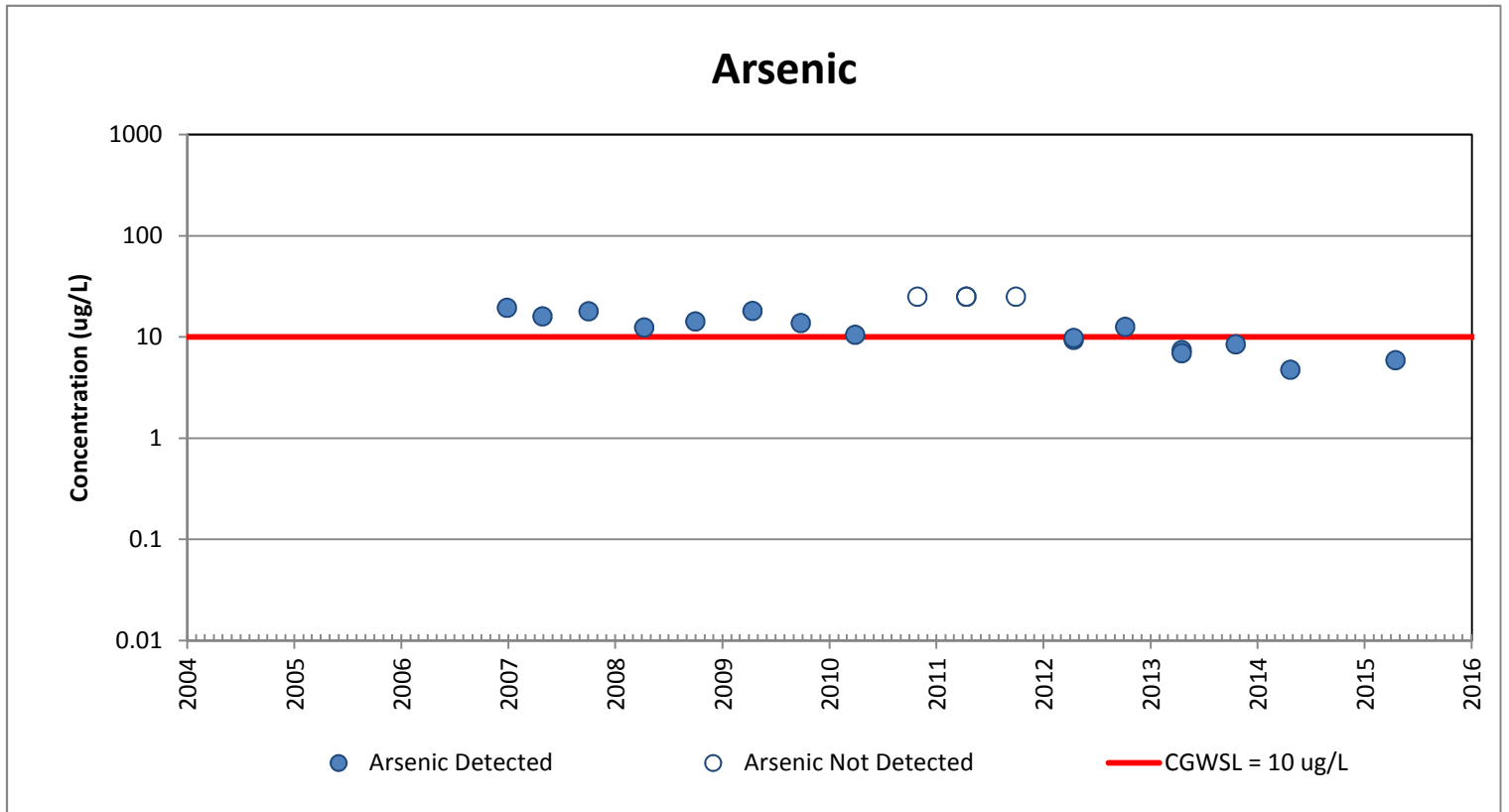
## MTBE



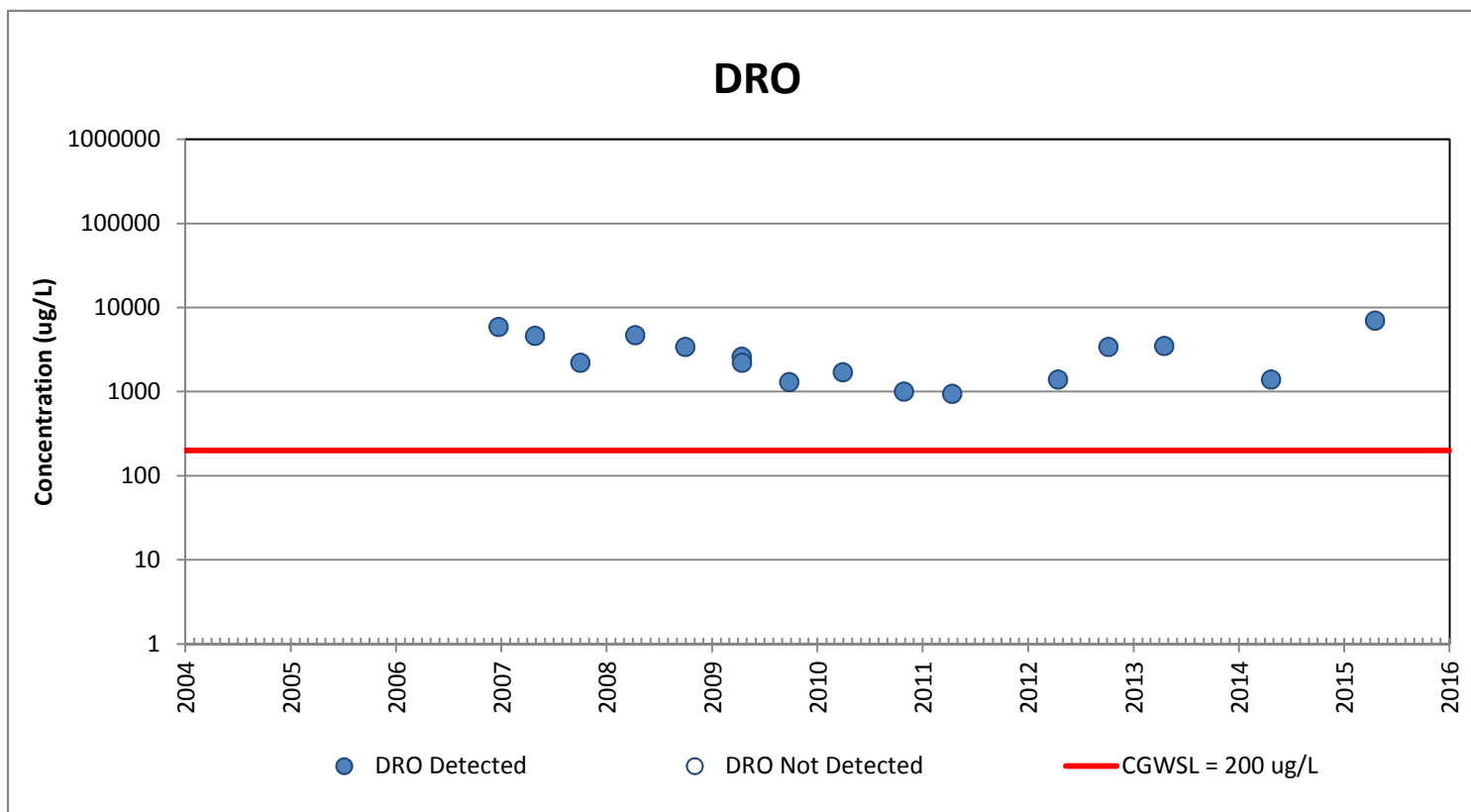
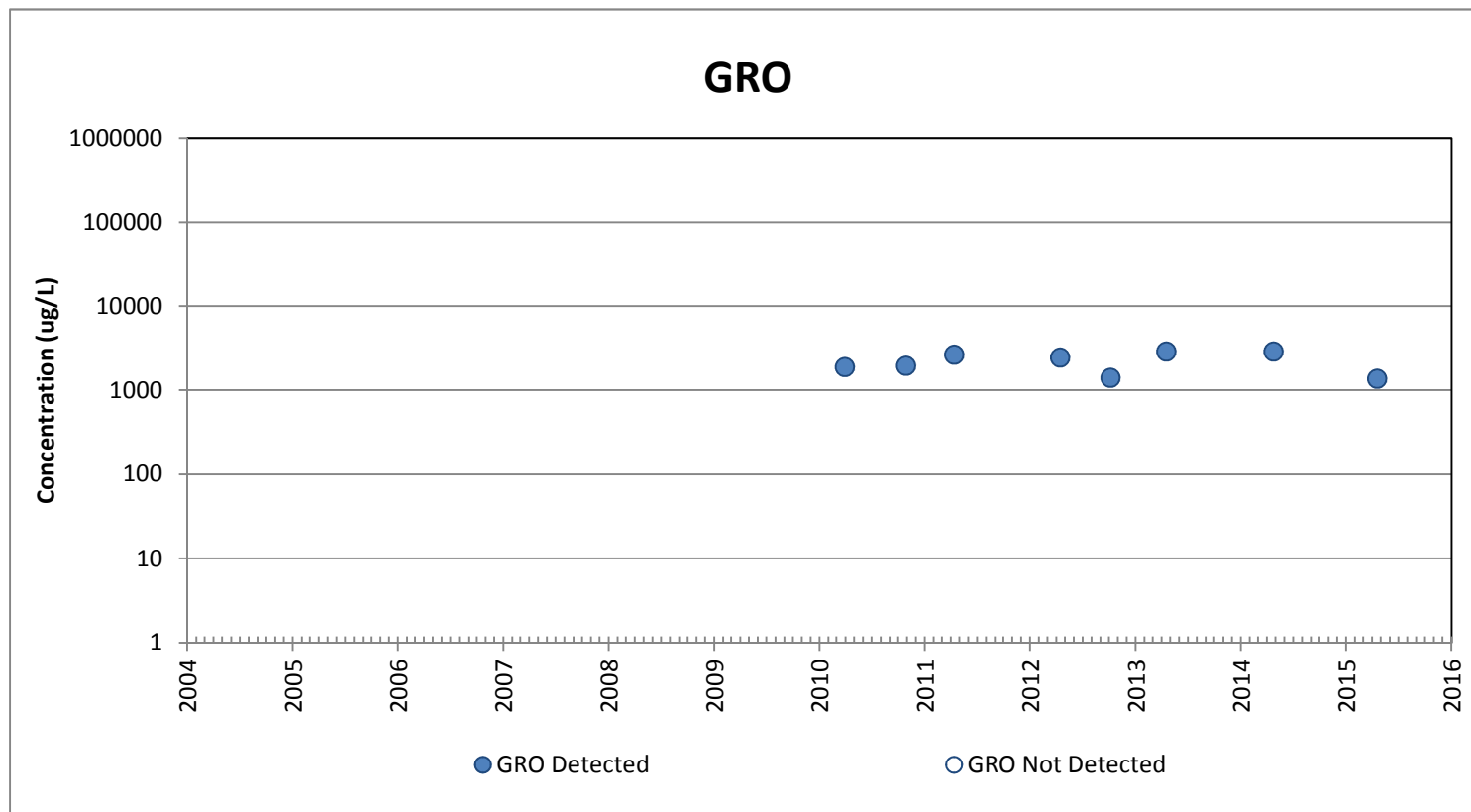
## Naphthalene



# MW-41

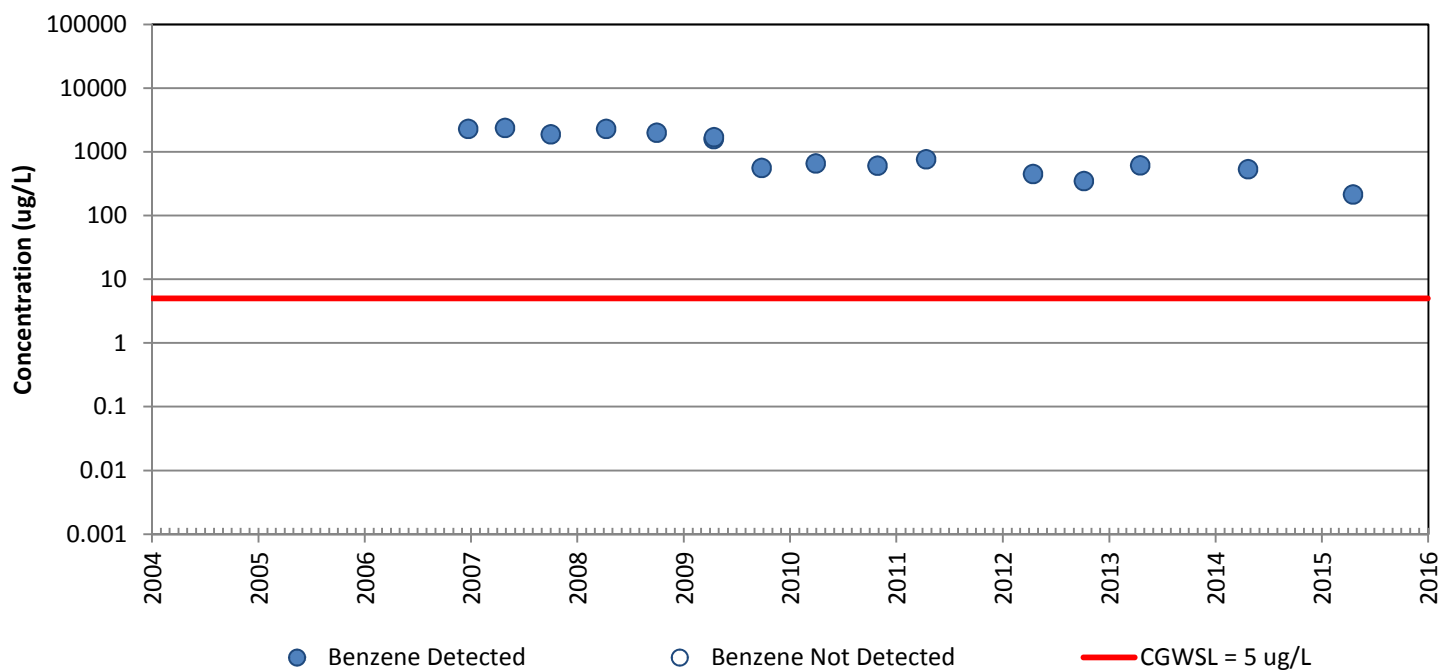


# MW-42

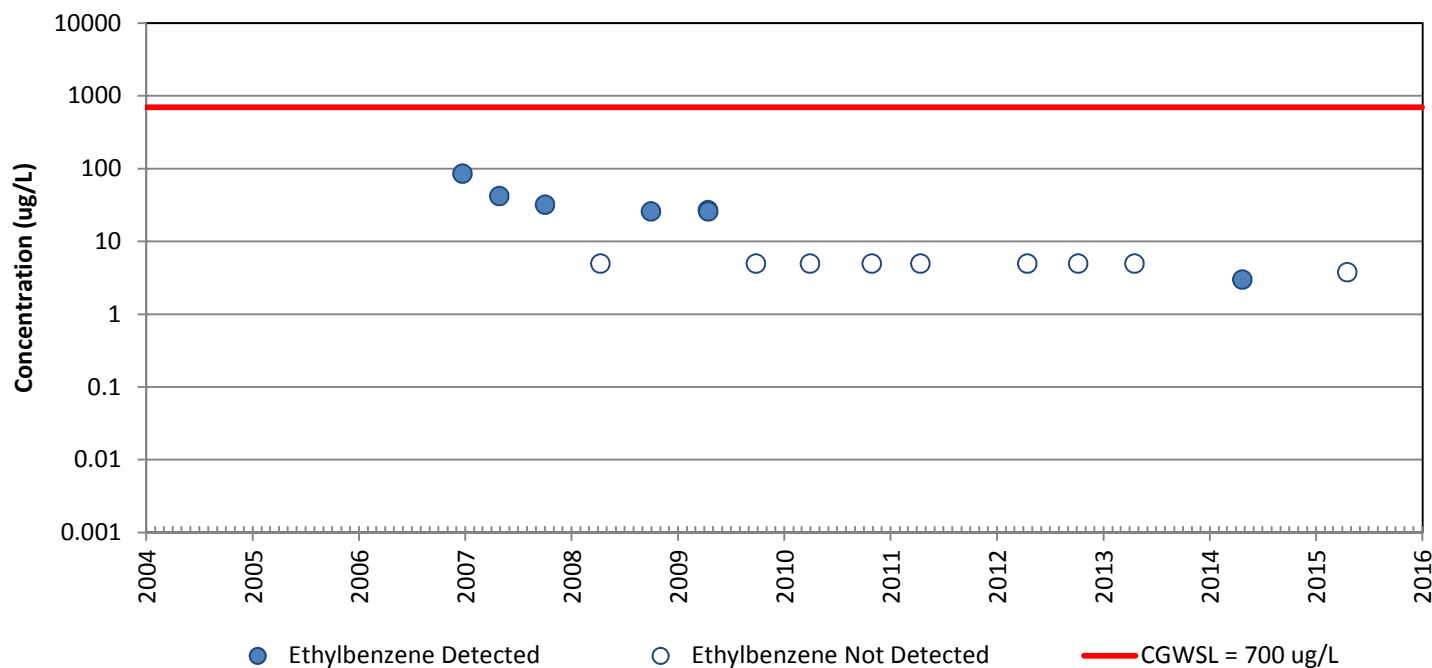


# MW-42

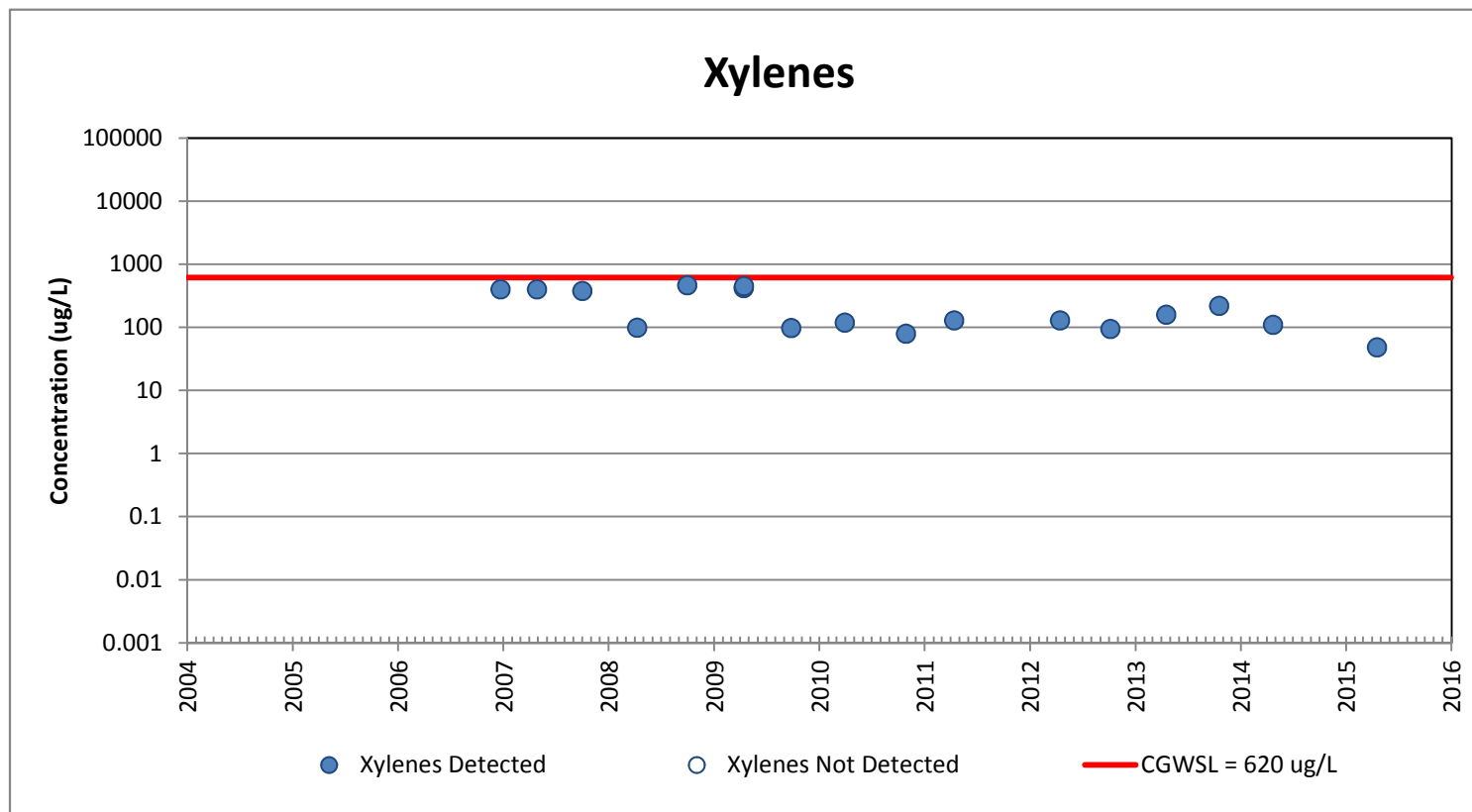
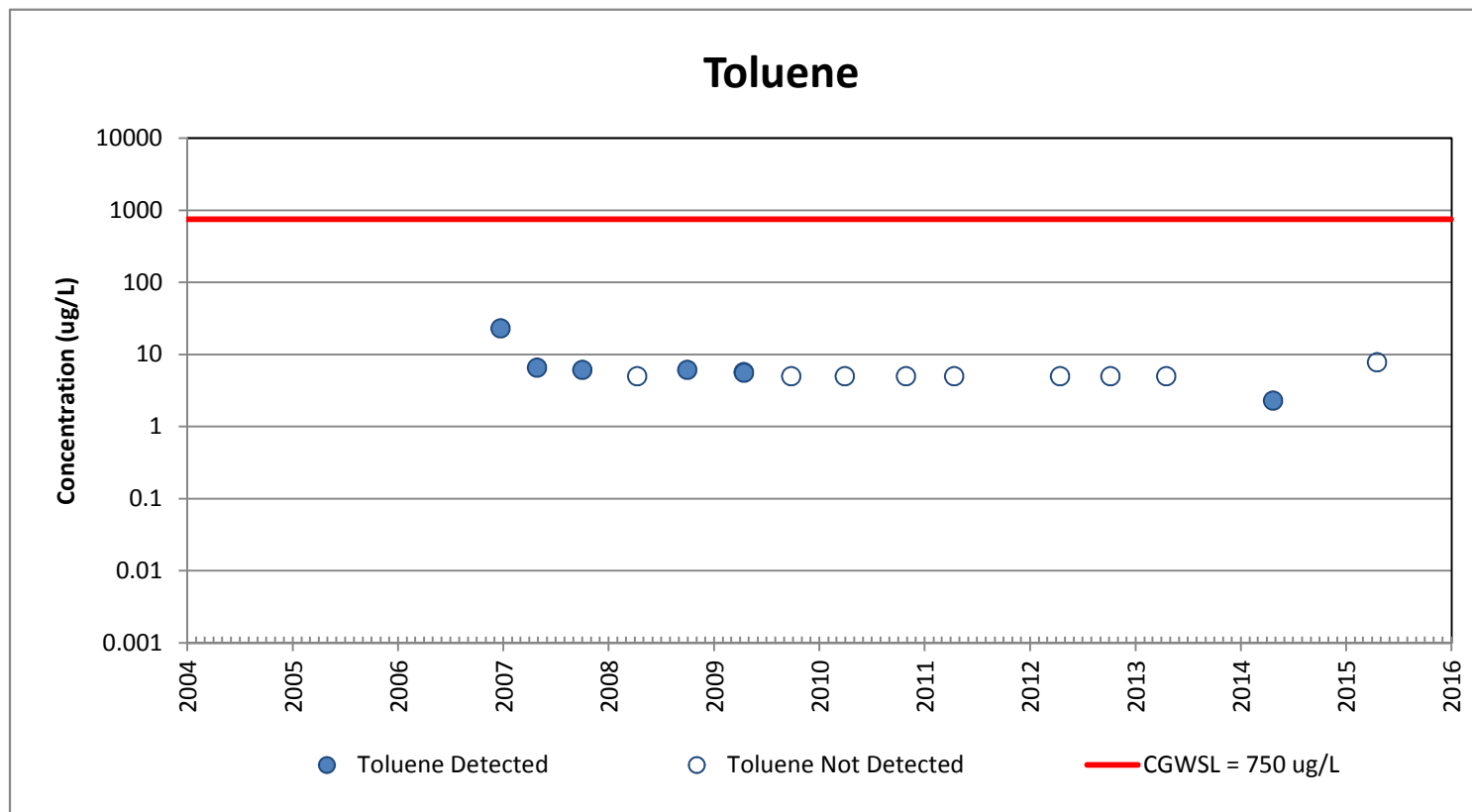
## Benzene



## Ethylbenzene

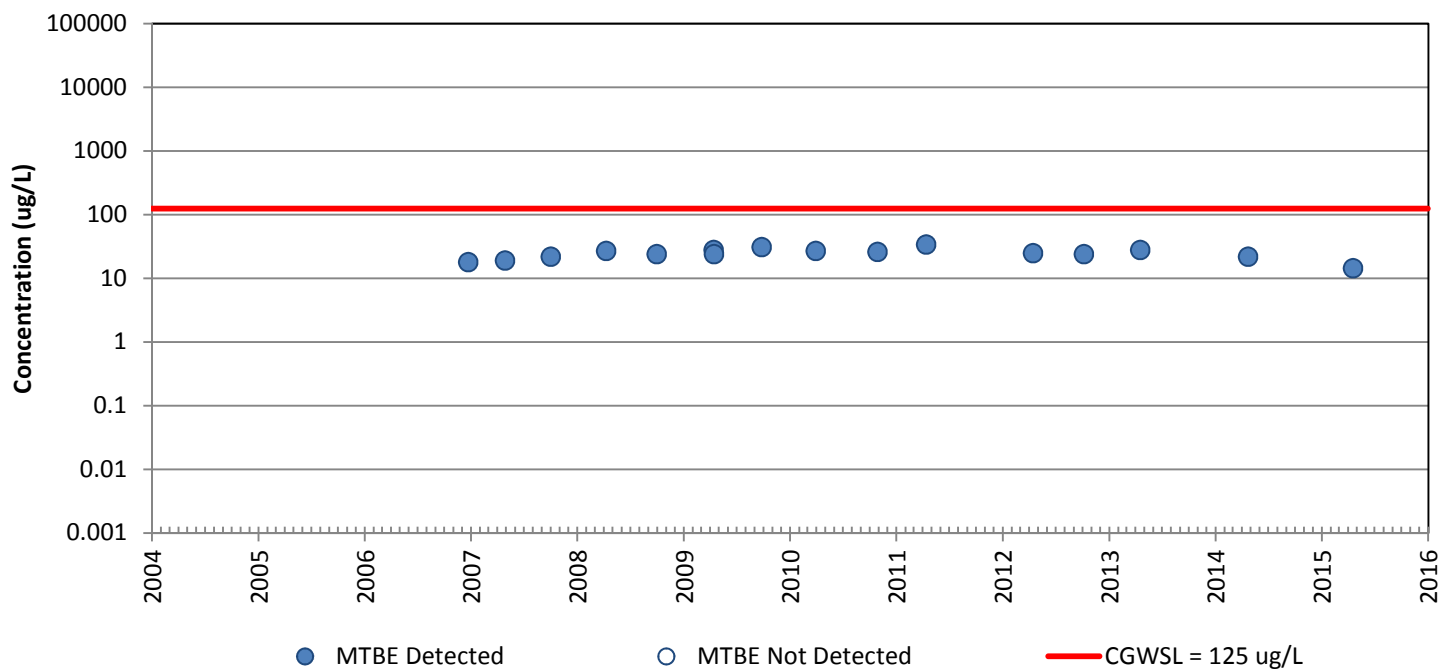


# MW-42

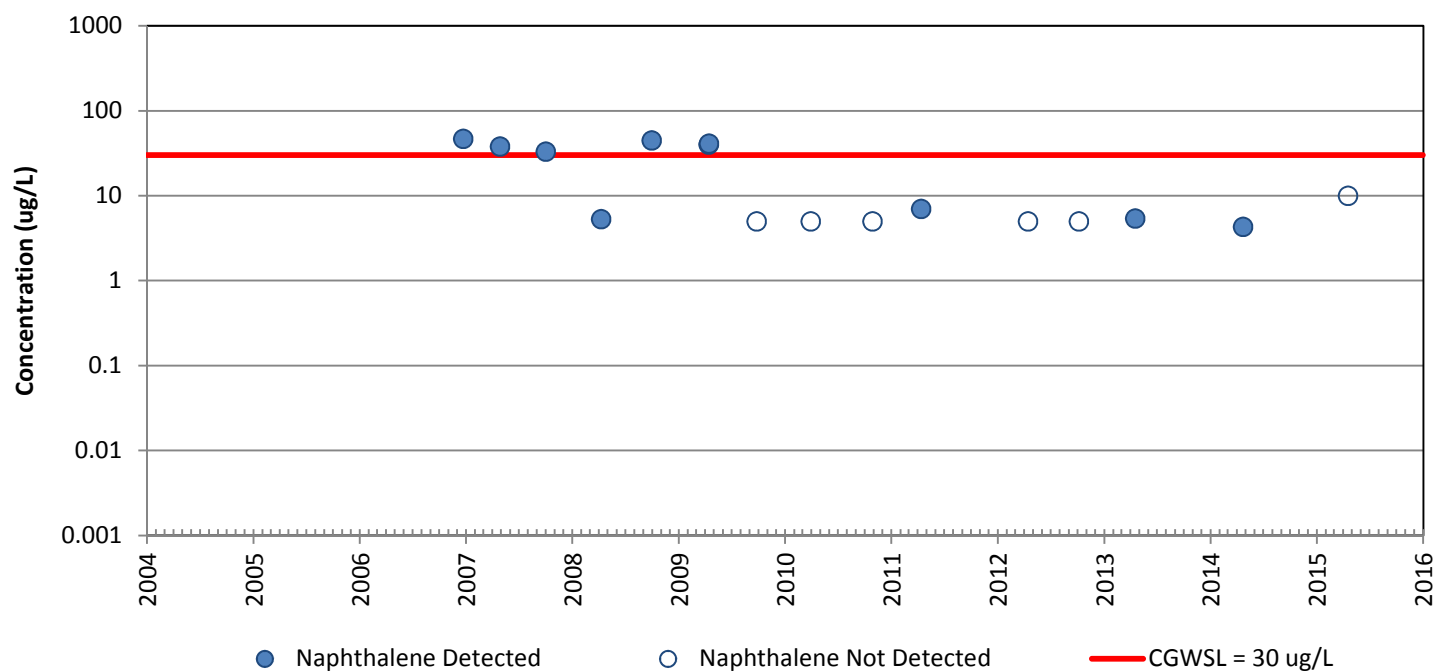


# MW-42

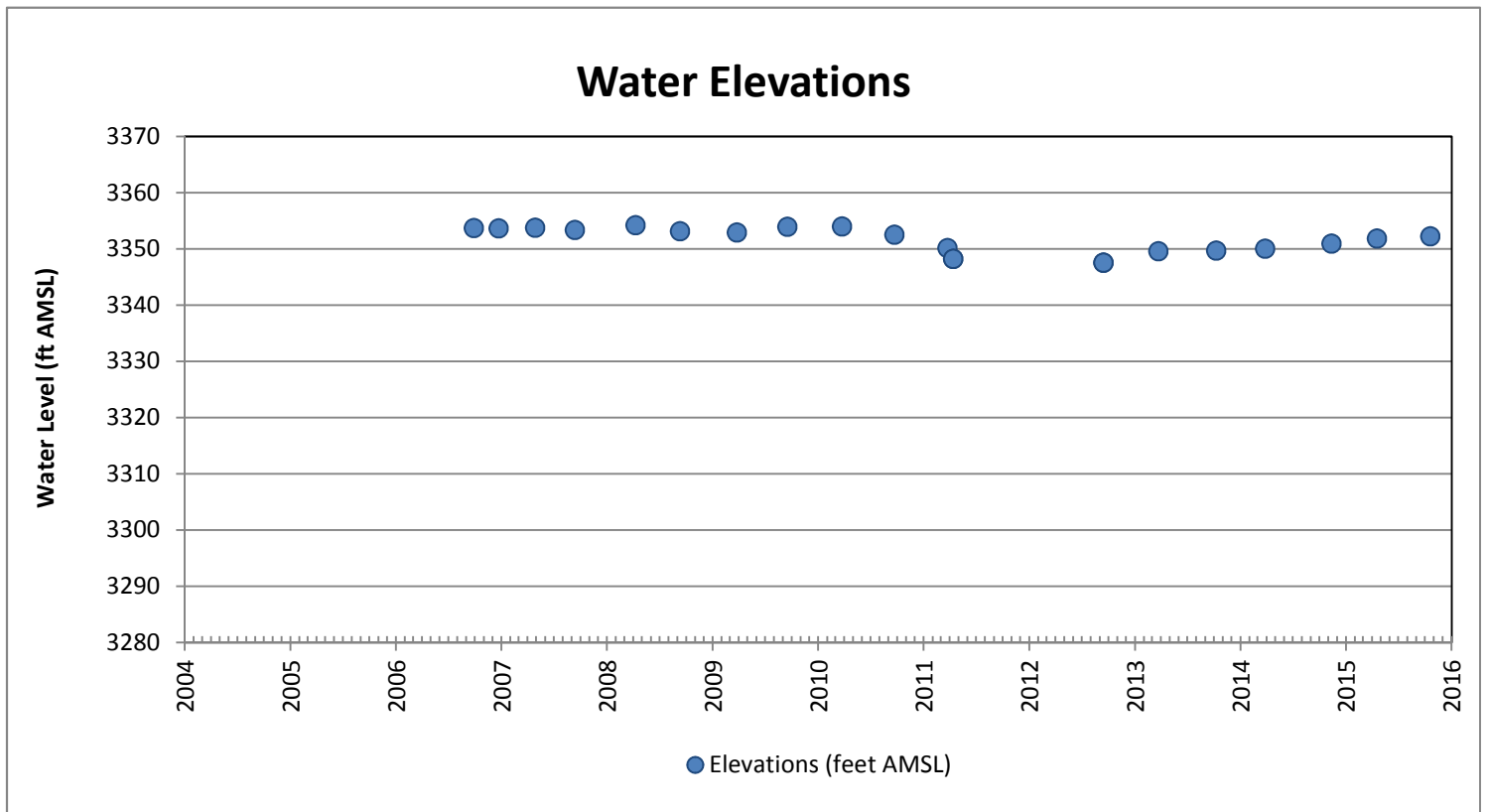
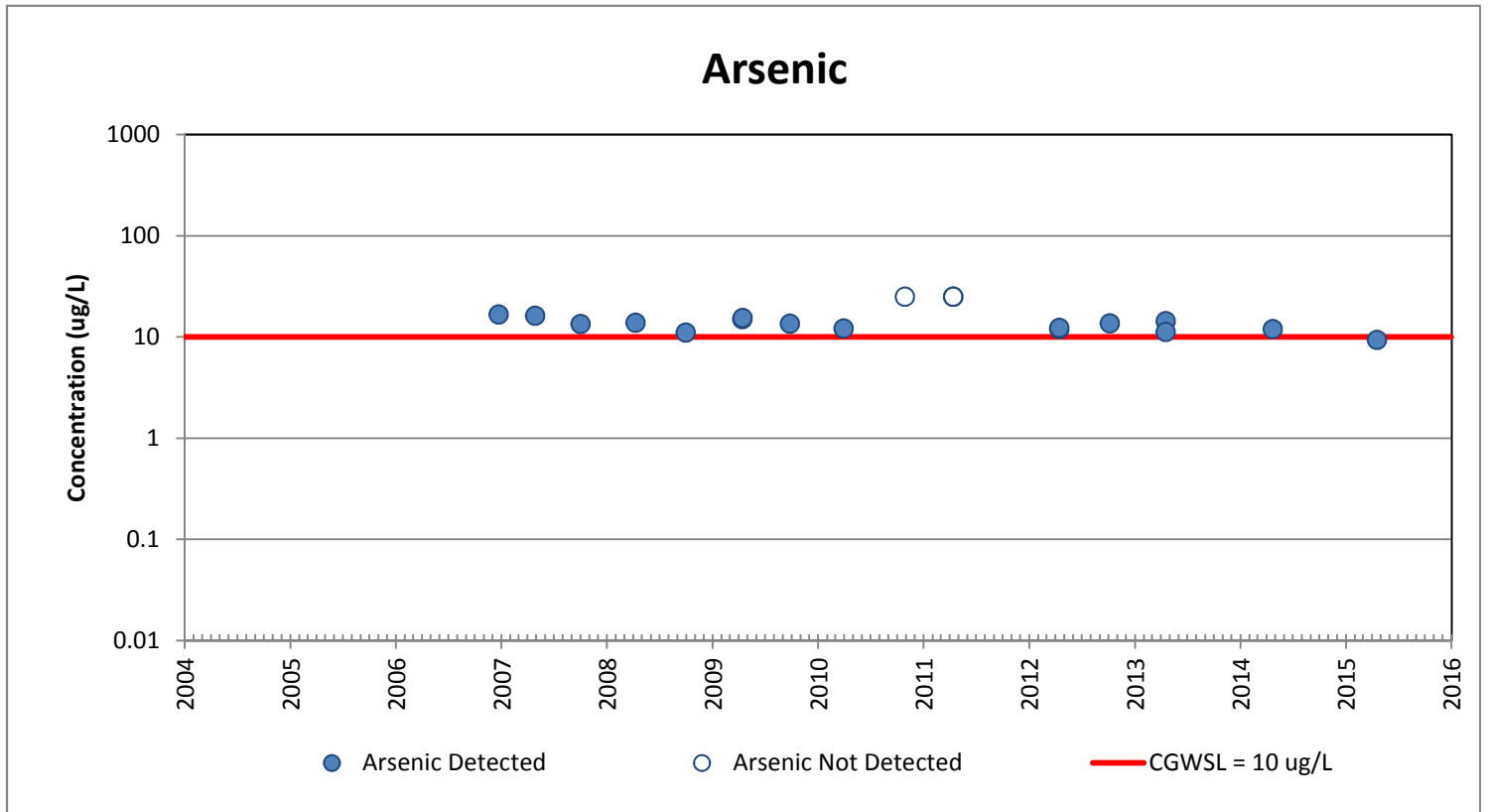
## MTBE



## Naphthalene

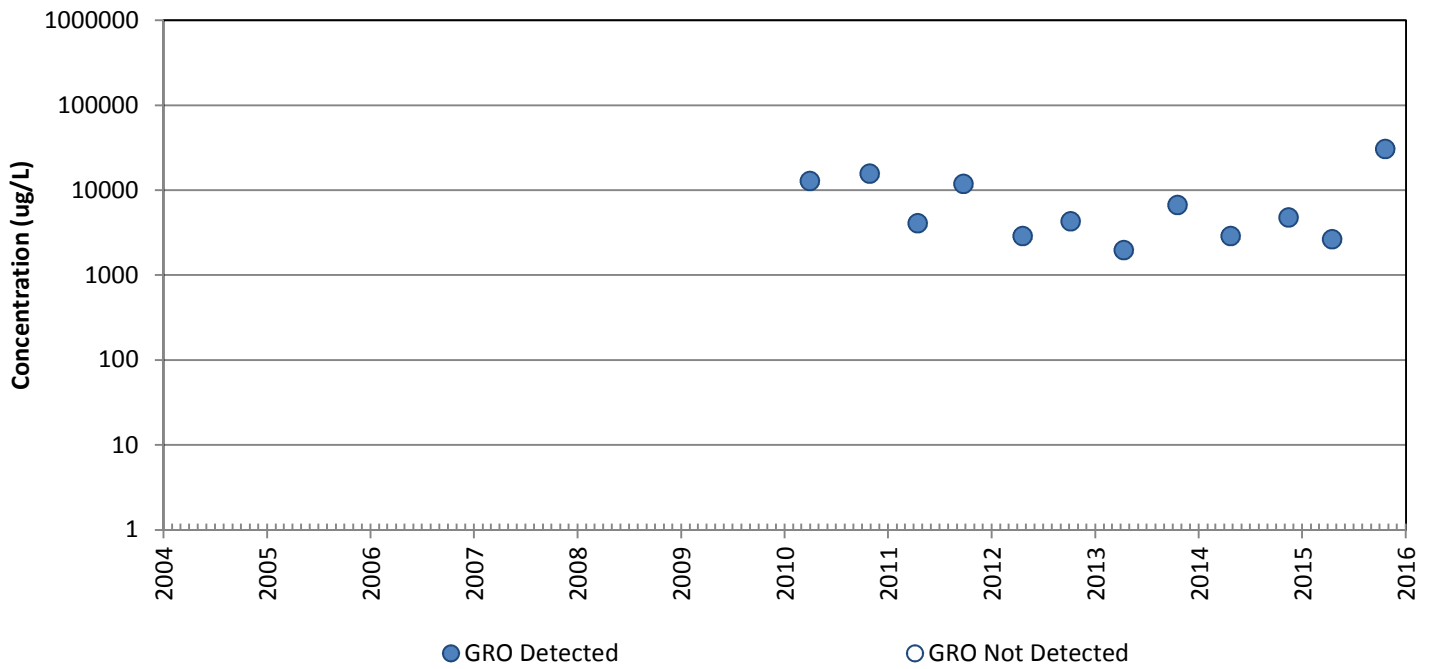


# MW-42

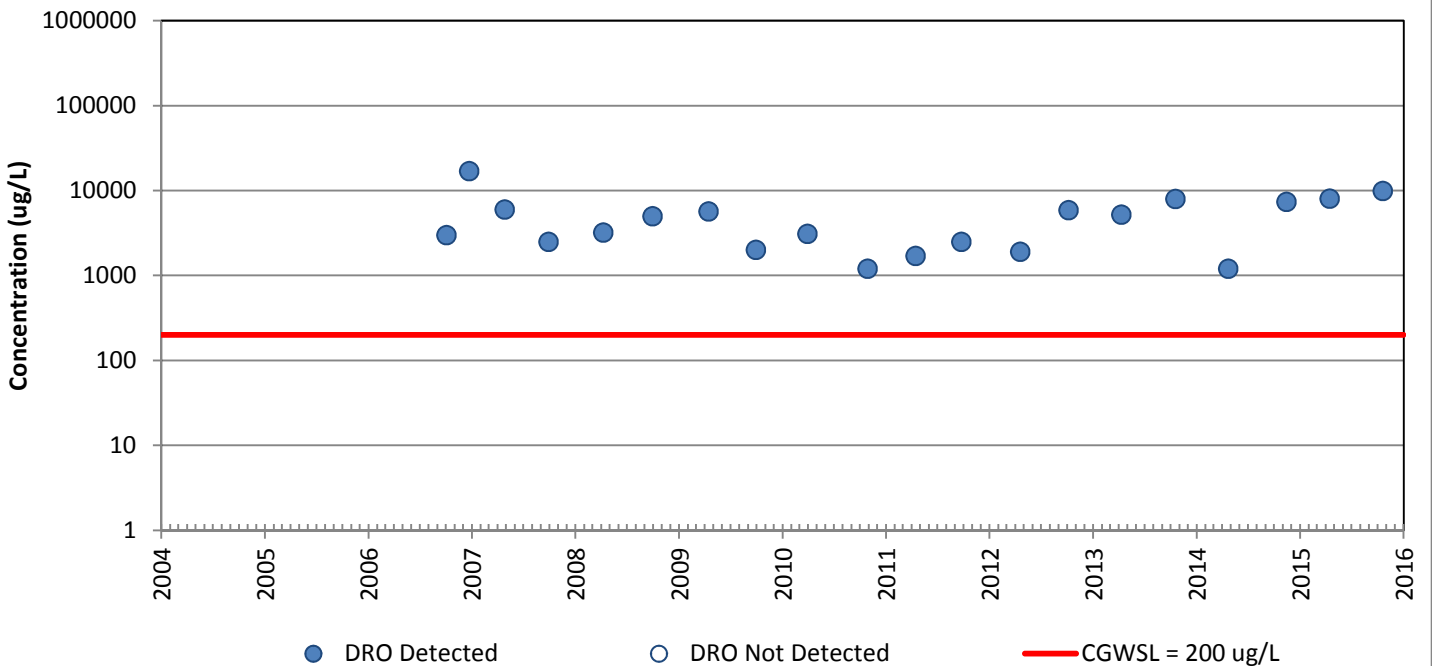


# MW-43

## GRO

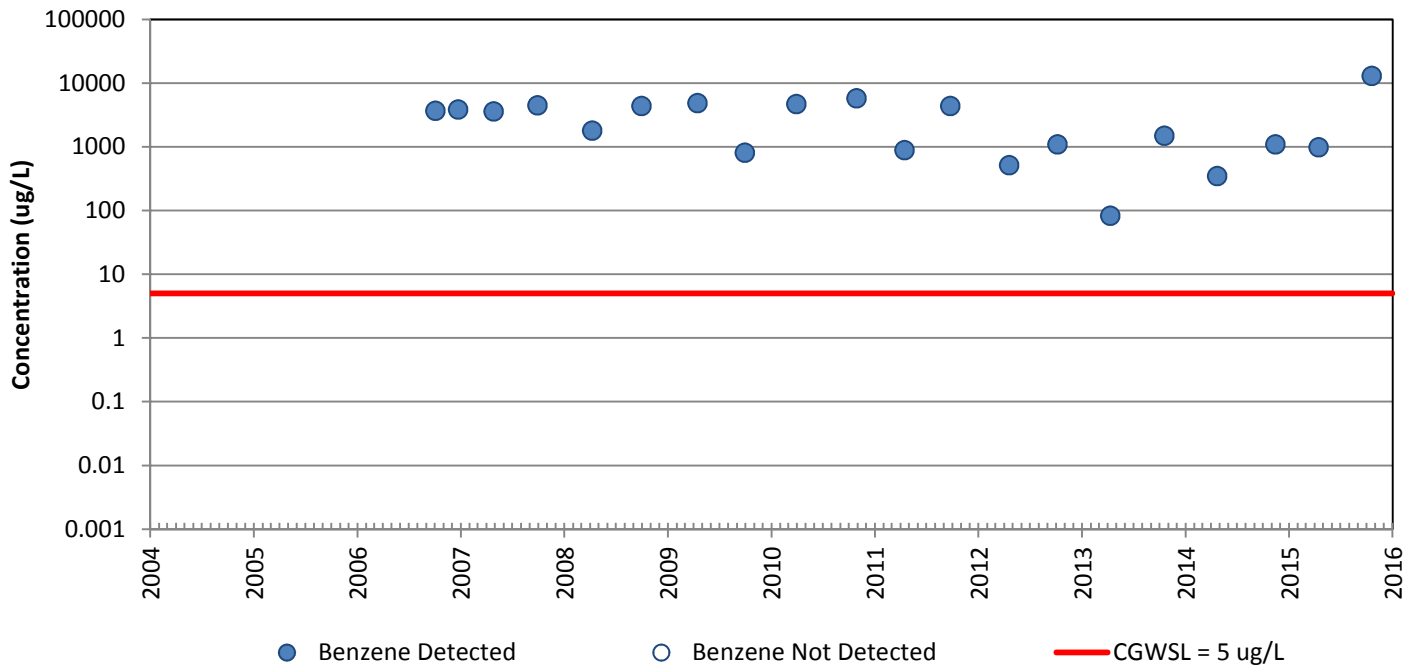


## DRO

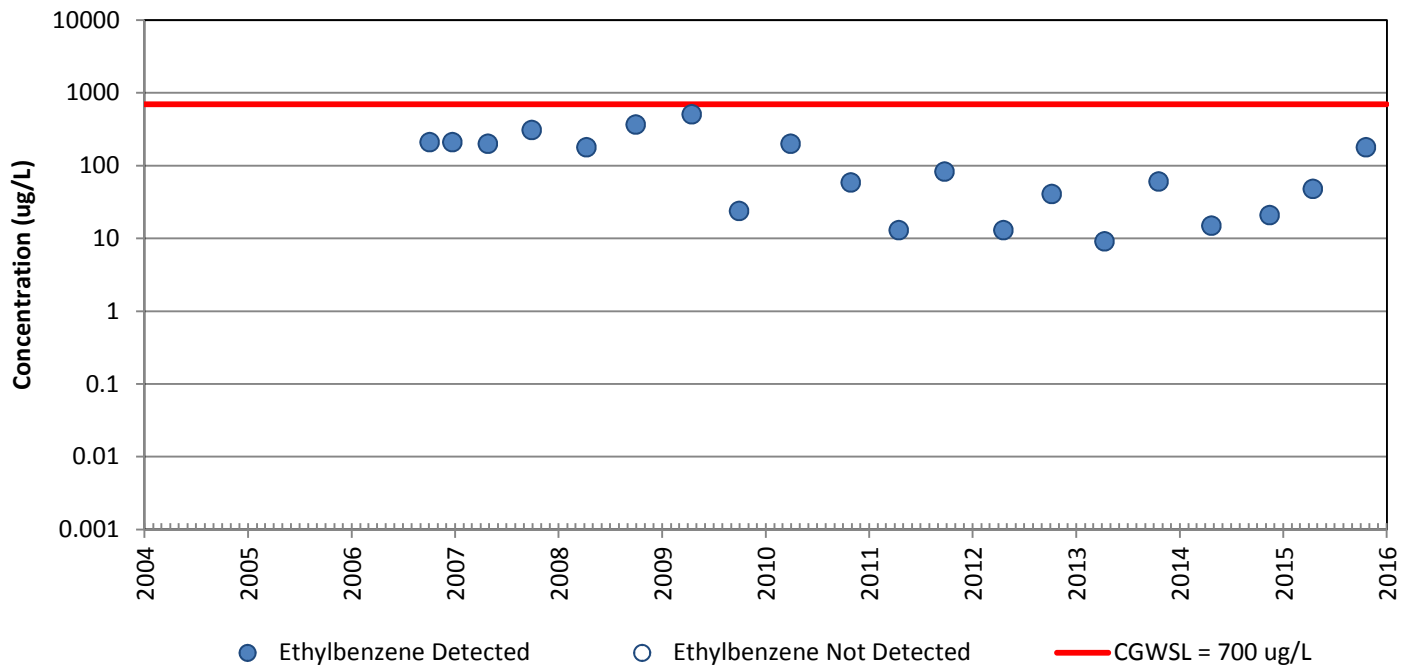


# MW-43

## Benzene

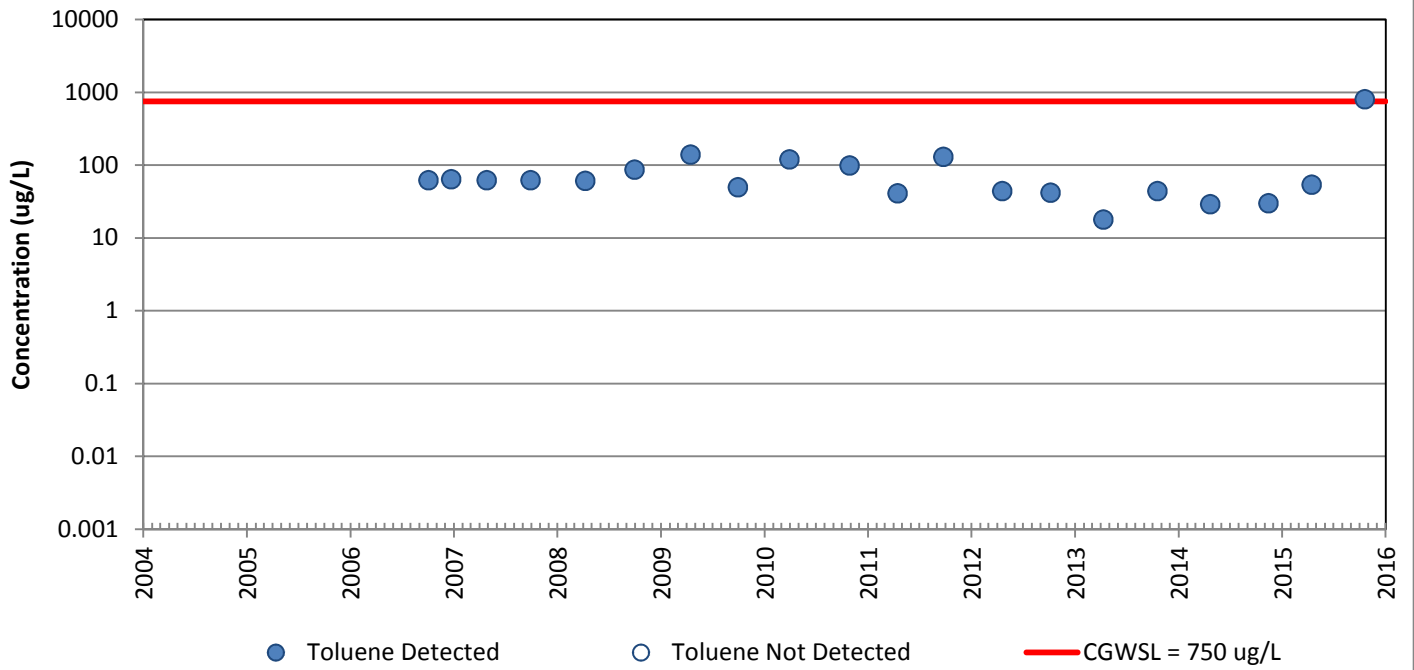


## Ethylbenzene

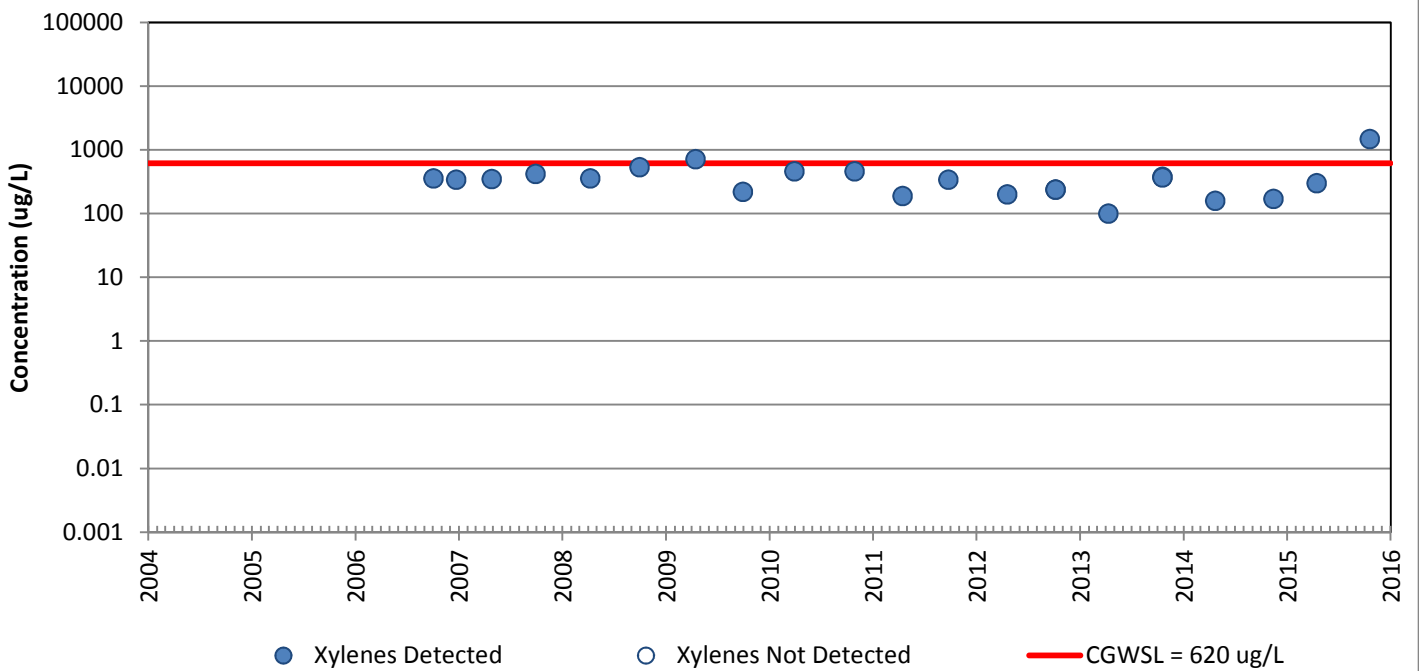


# MW-43

## Toluene

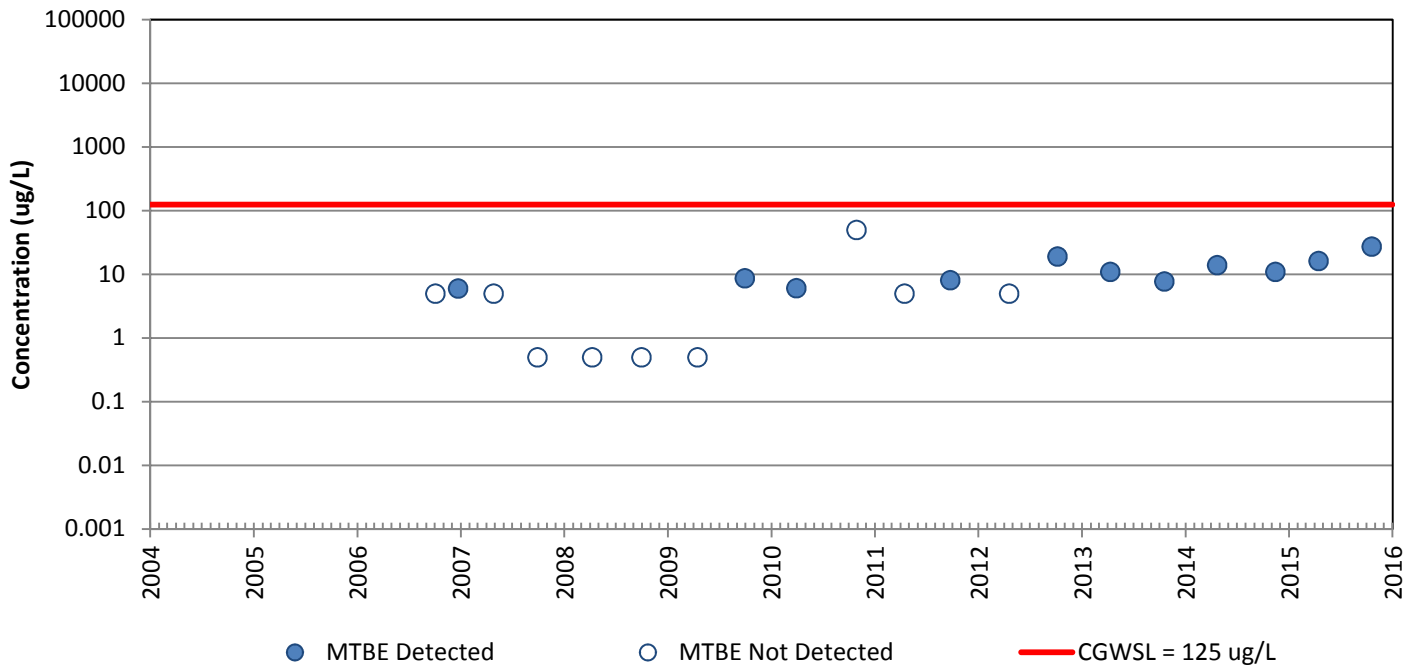


## Xylenes

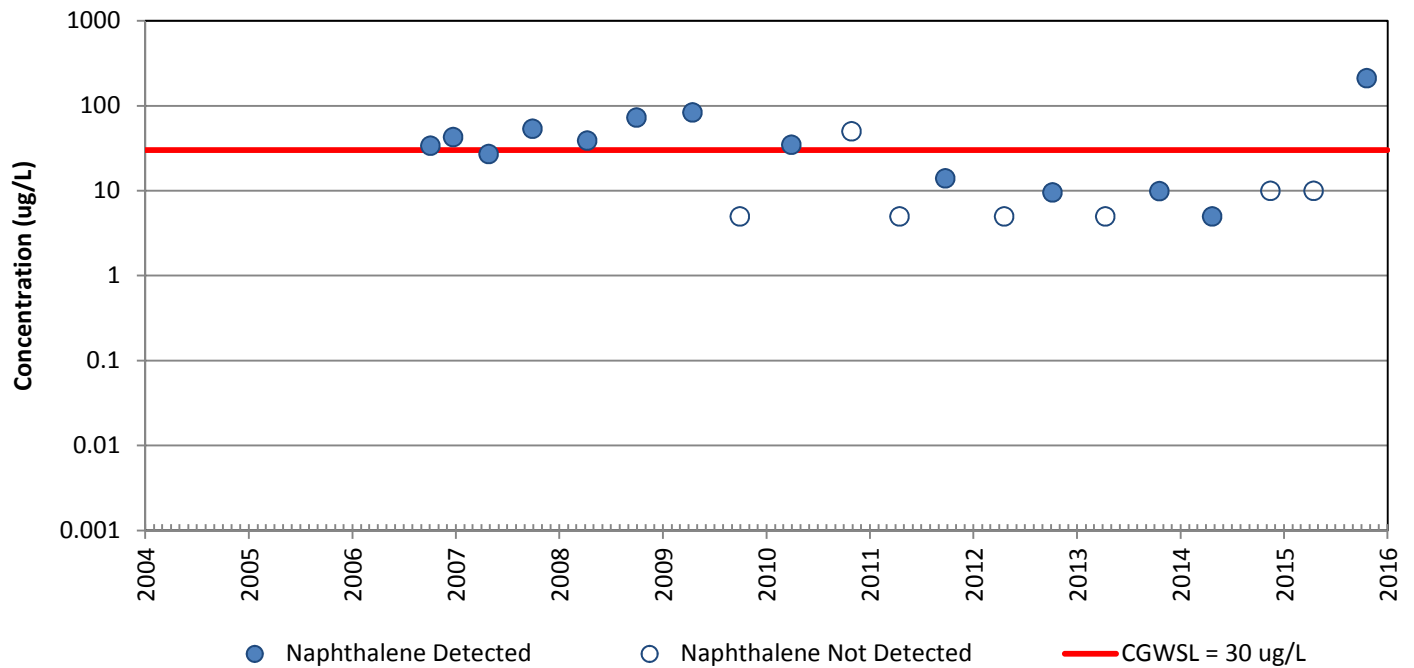


# MW-43

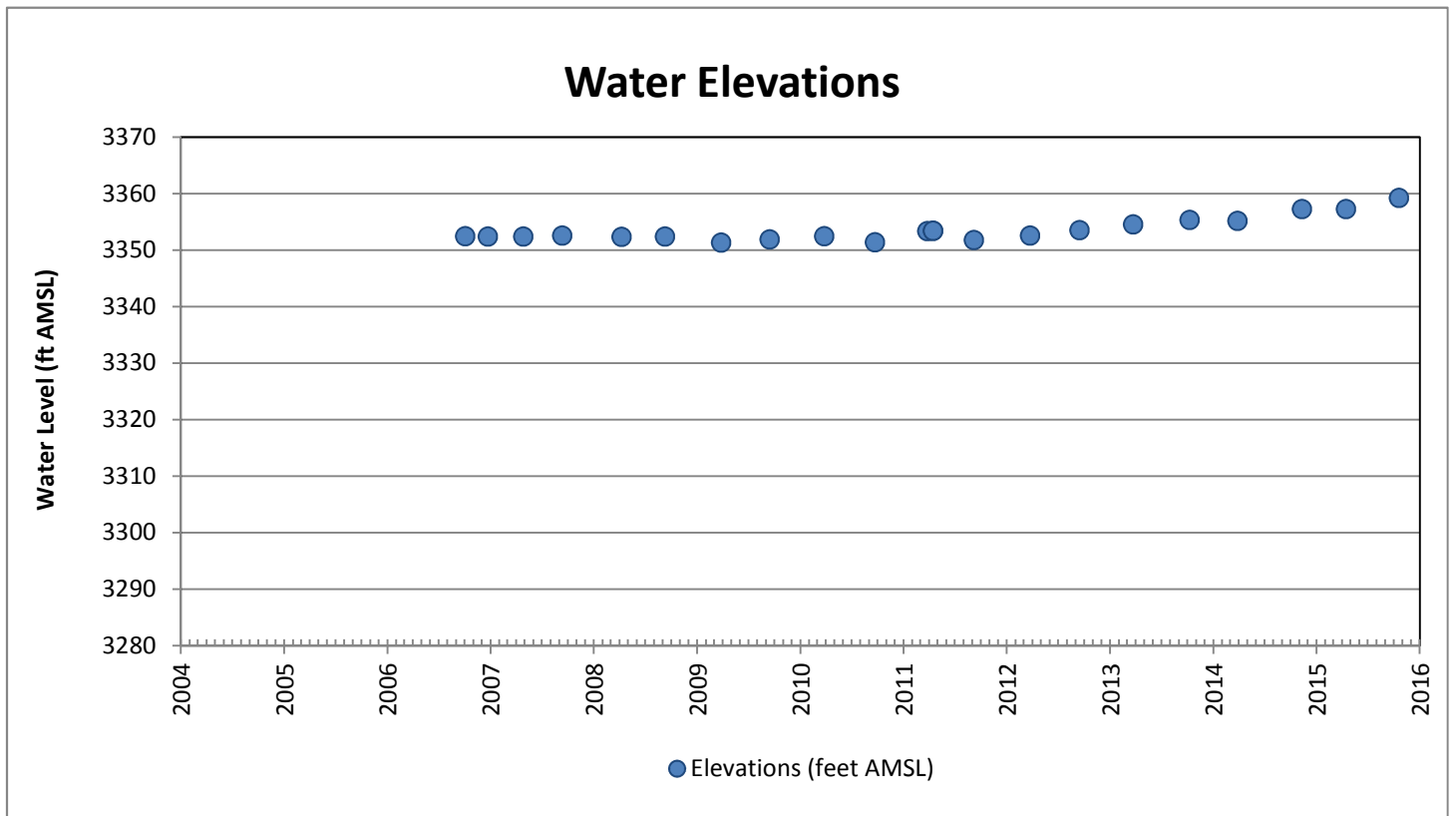
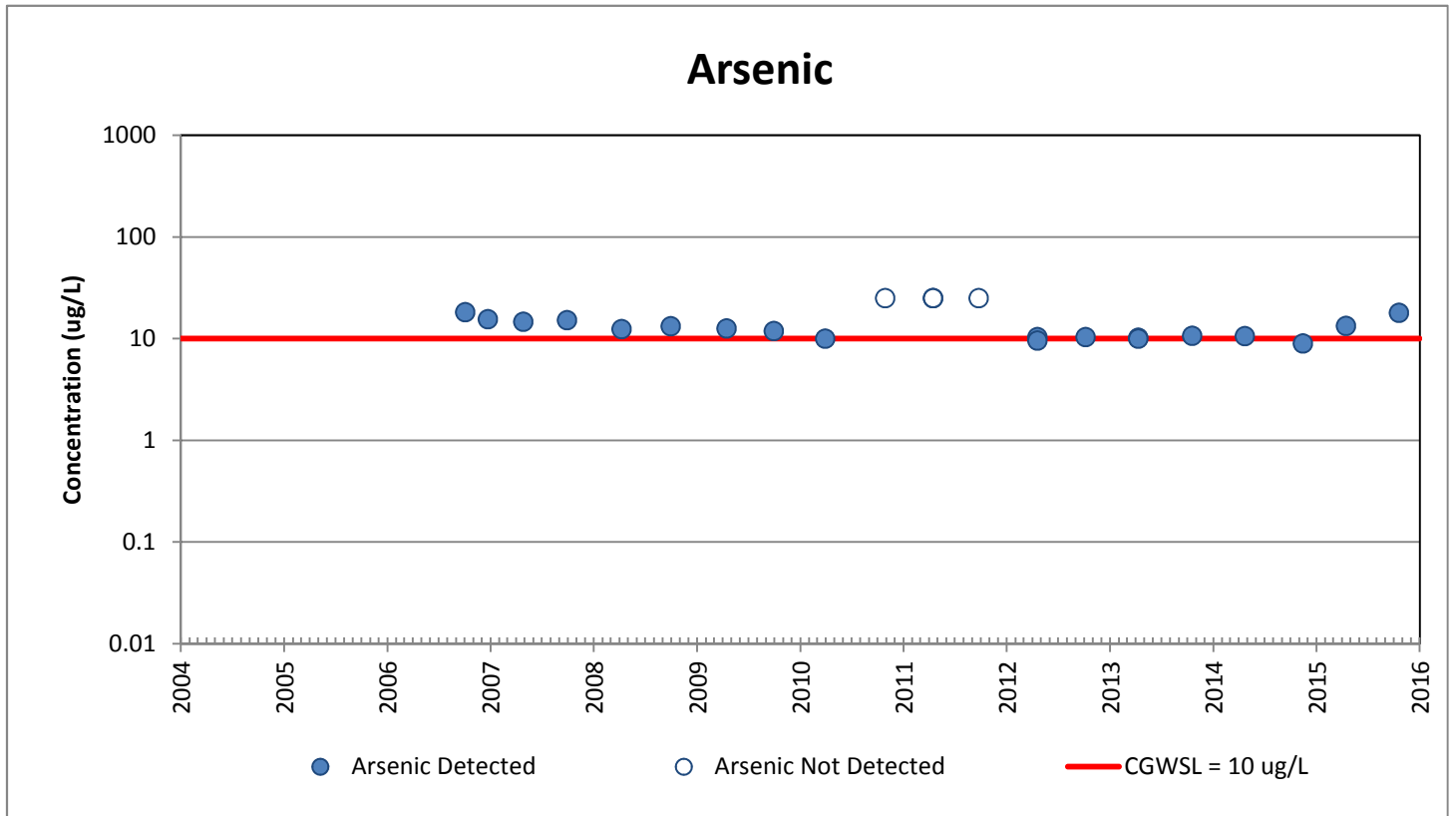
## MTBE



## Naphthalene

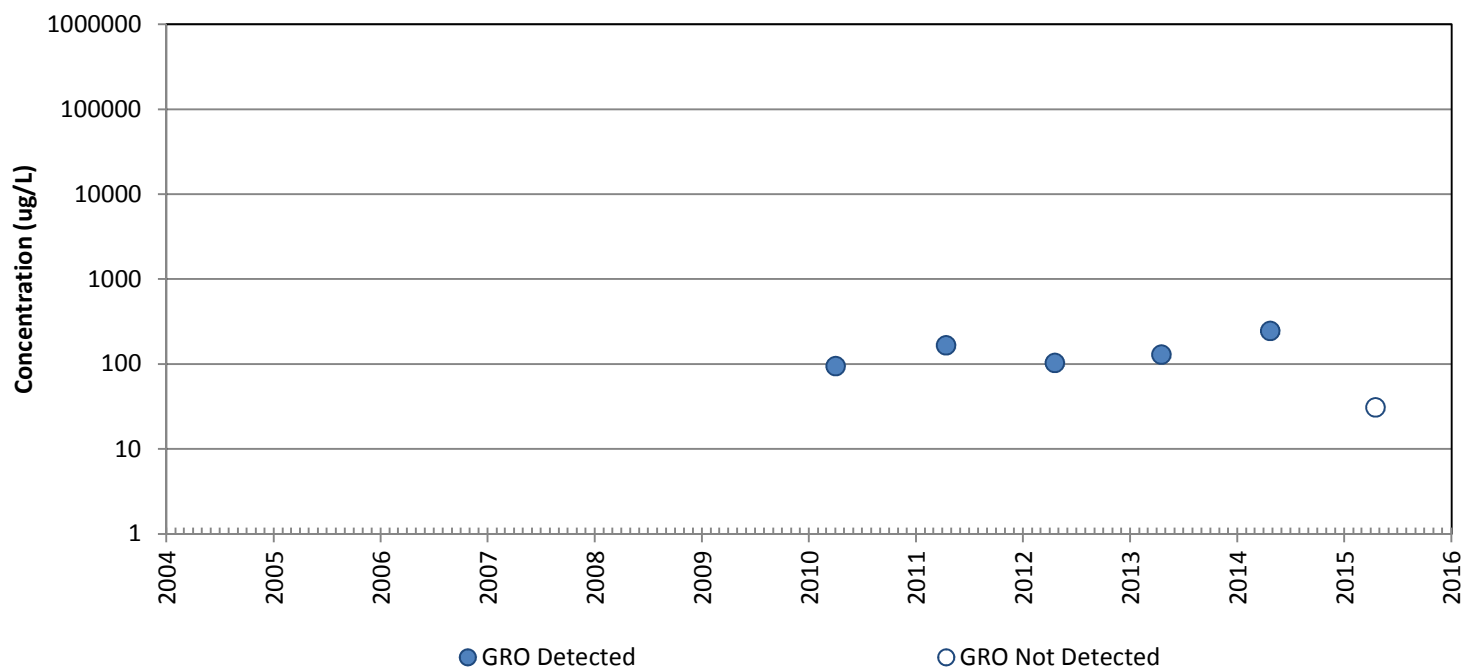


# MW-43

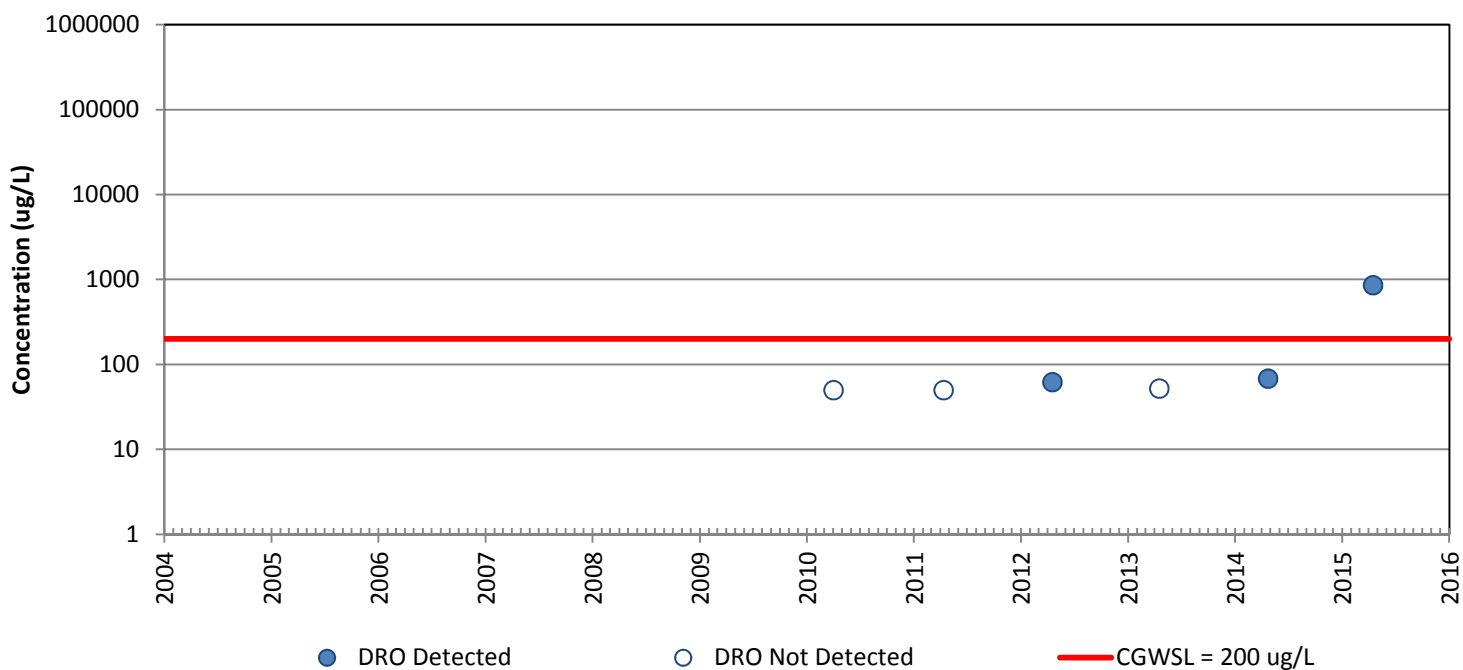


# MW-59

## GRO

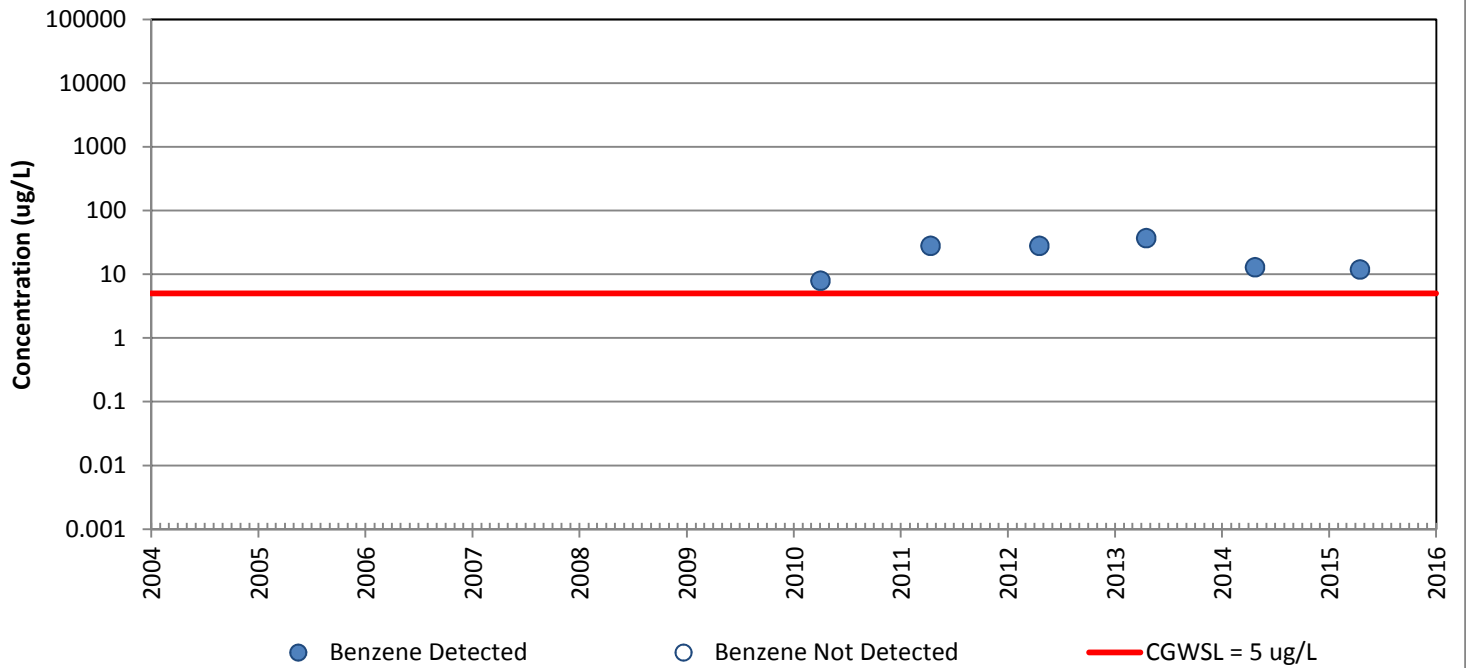


## DRO

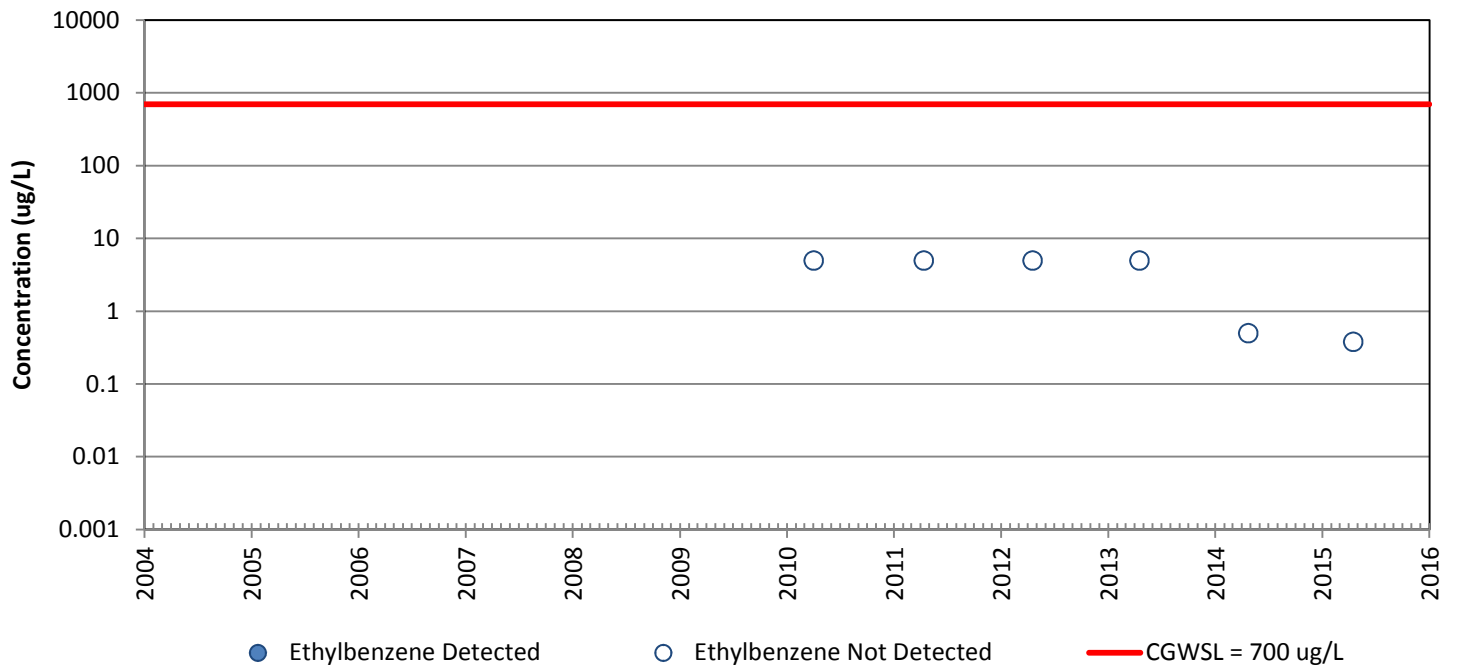


# MW-59

## Benzene

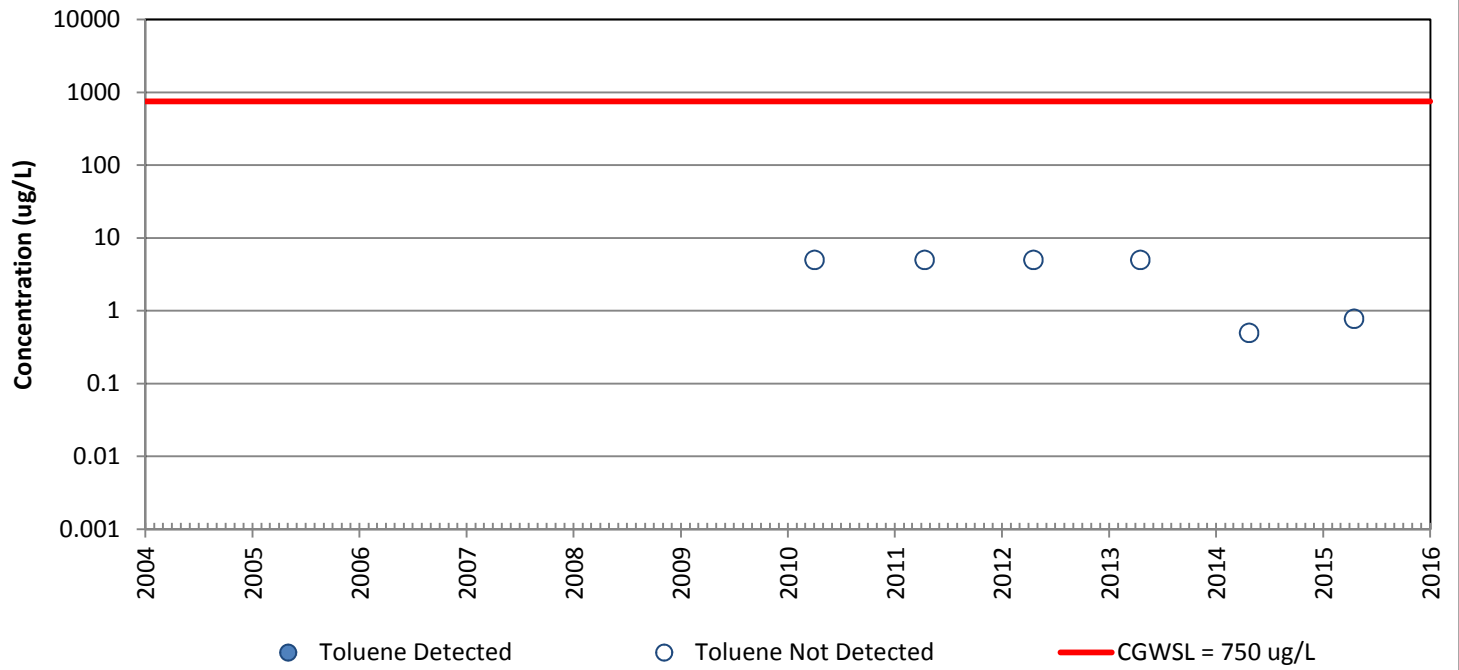


## Ethylbenzene

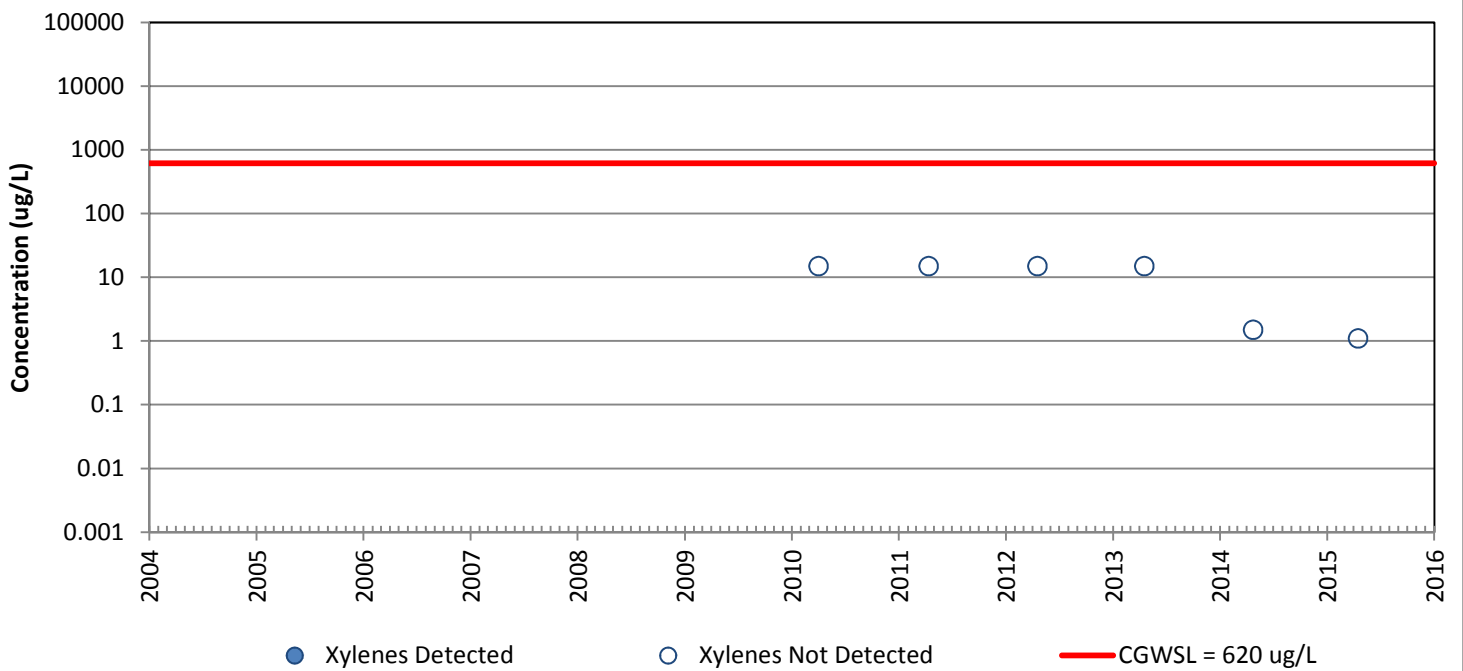


# MW-59

## Toluene

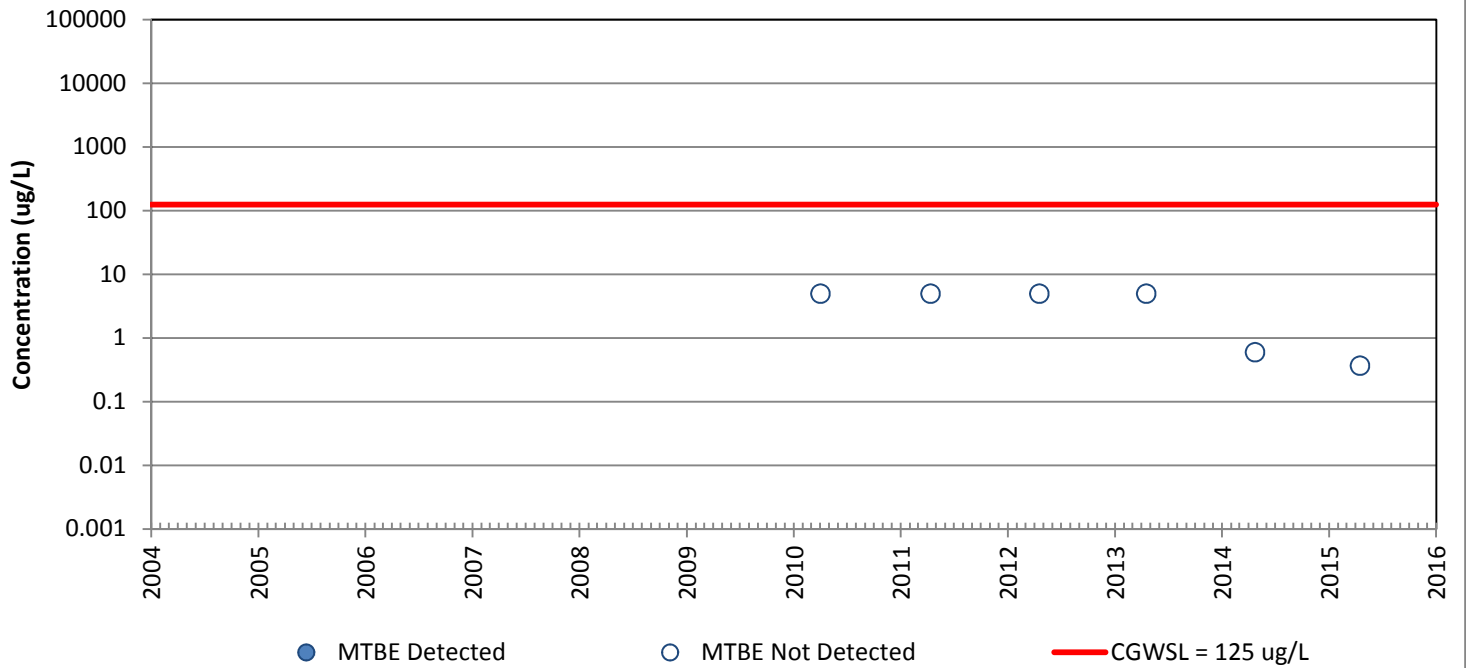


## Xylenes

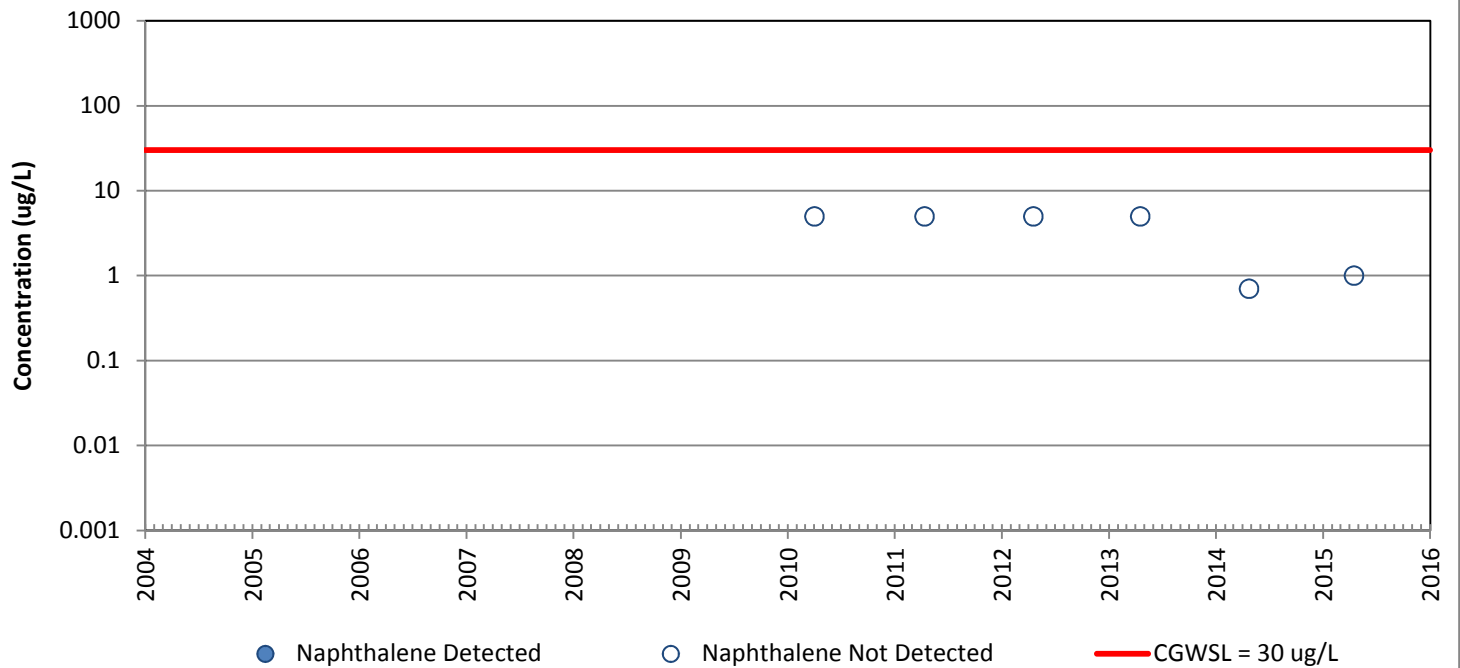


# MW-59

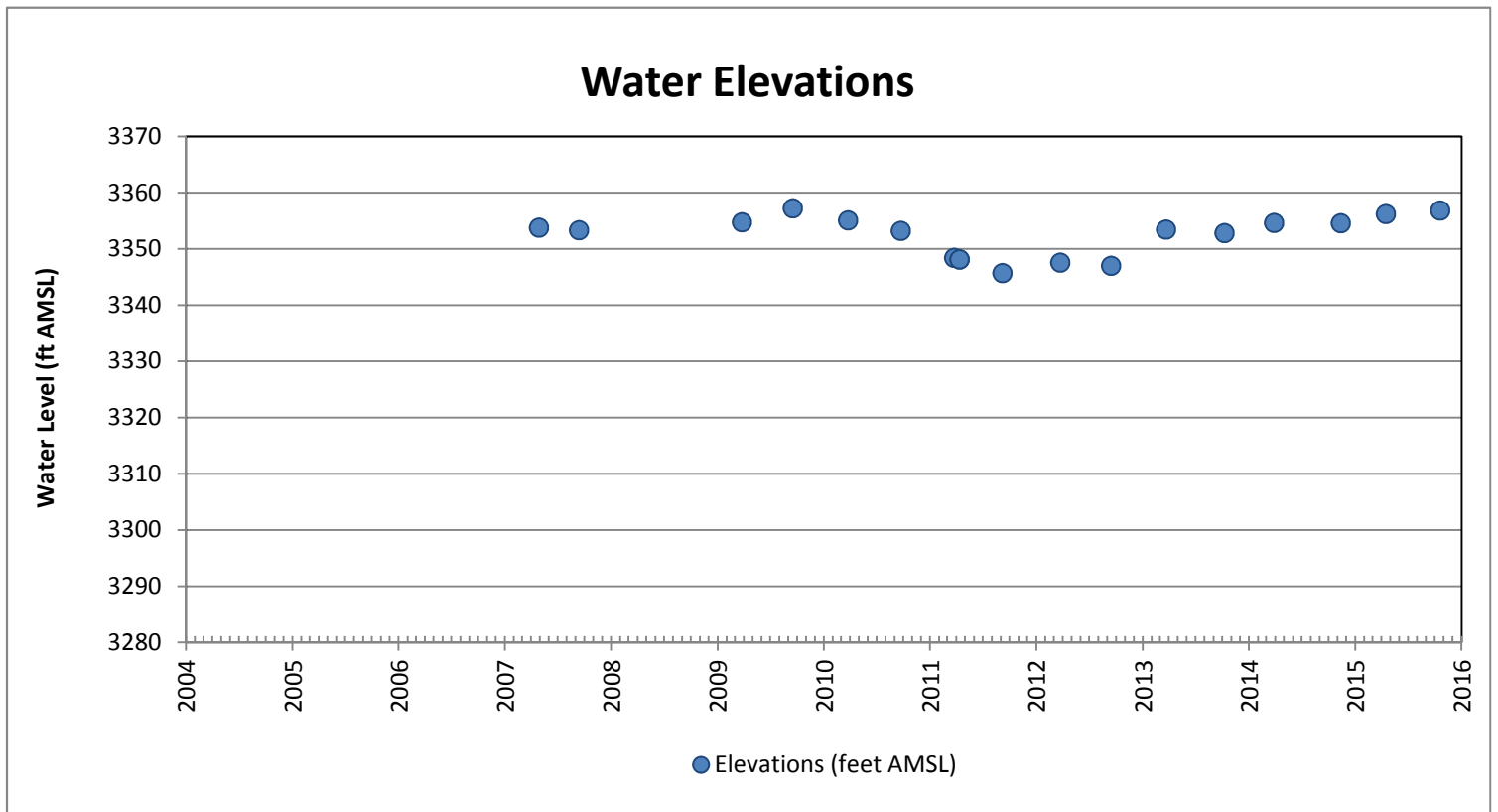
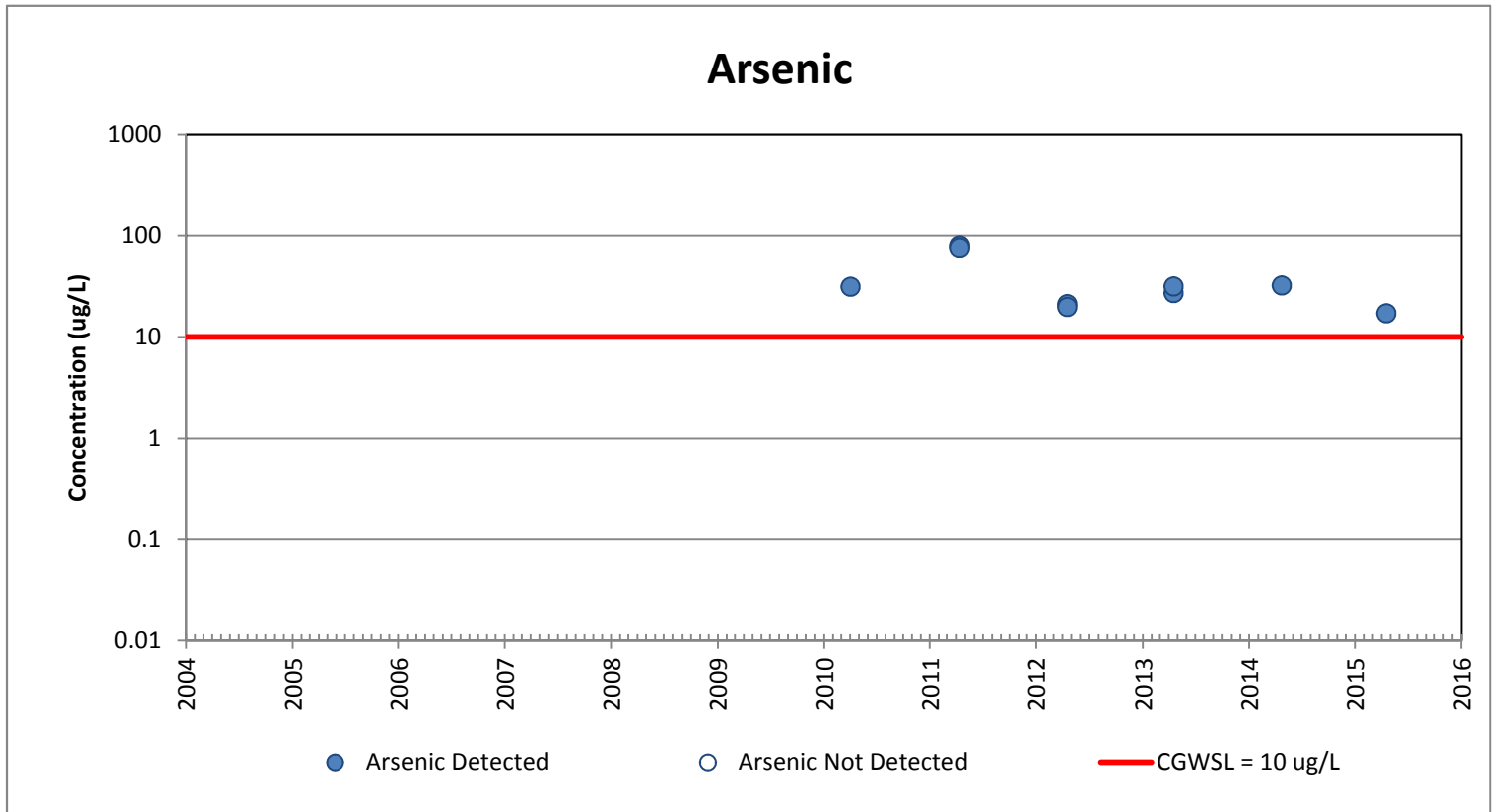
## MTBE



## Naphthalene

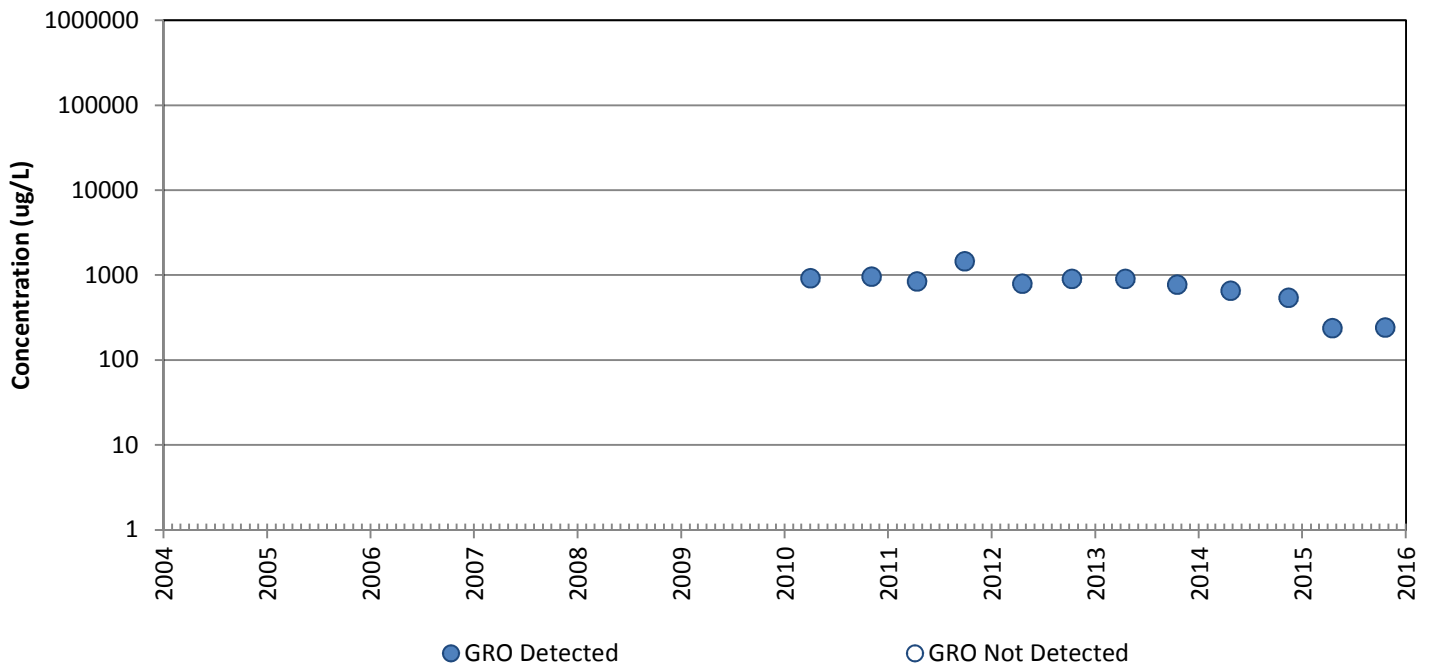


# MW-59

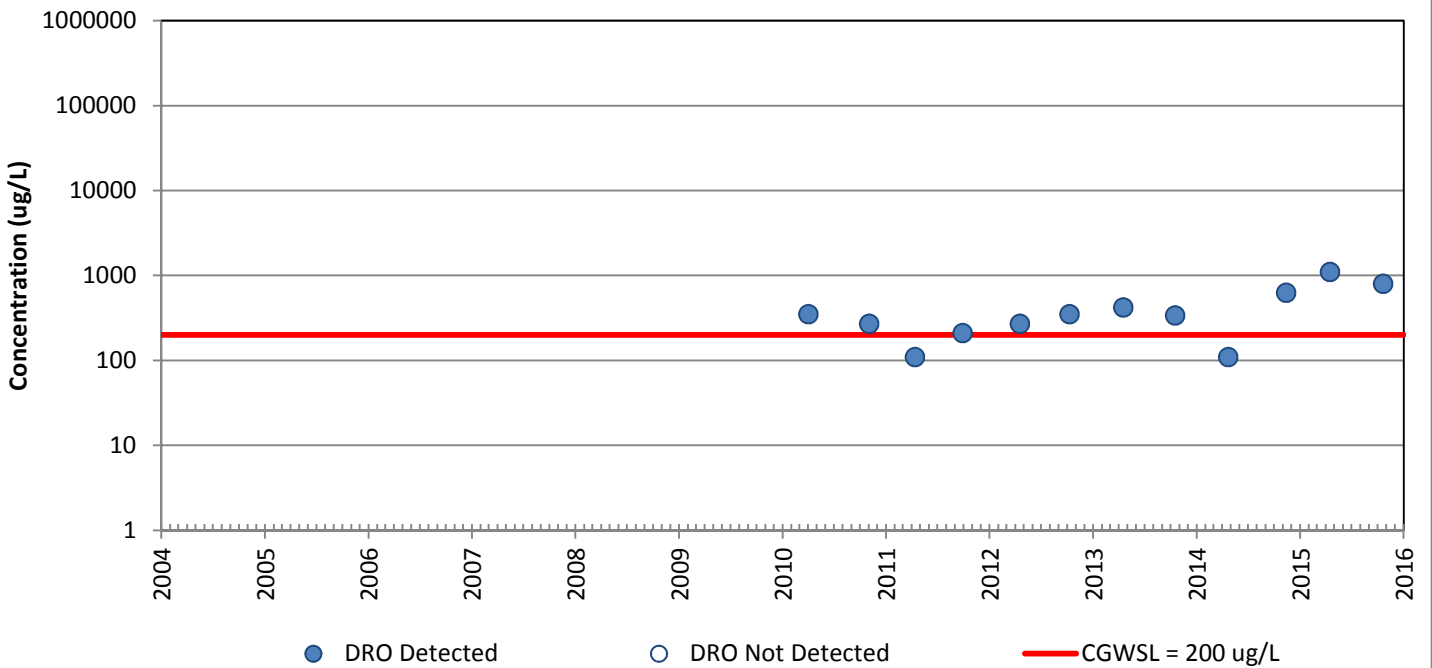


# MW-60

## GRO

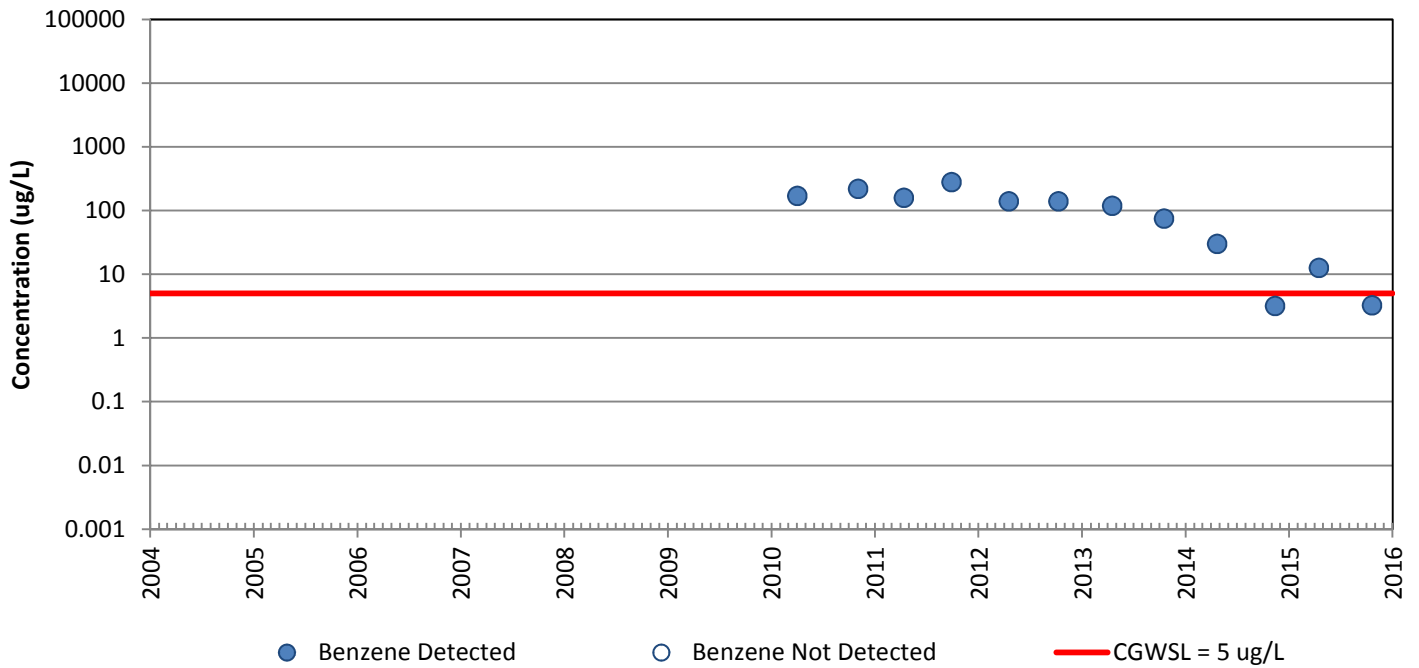


## DRO

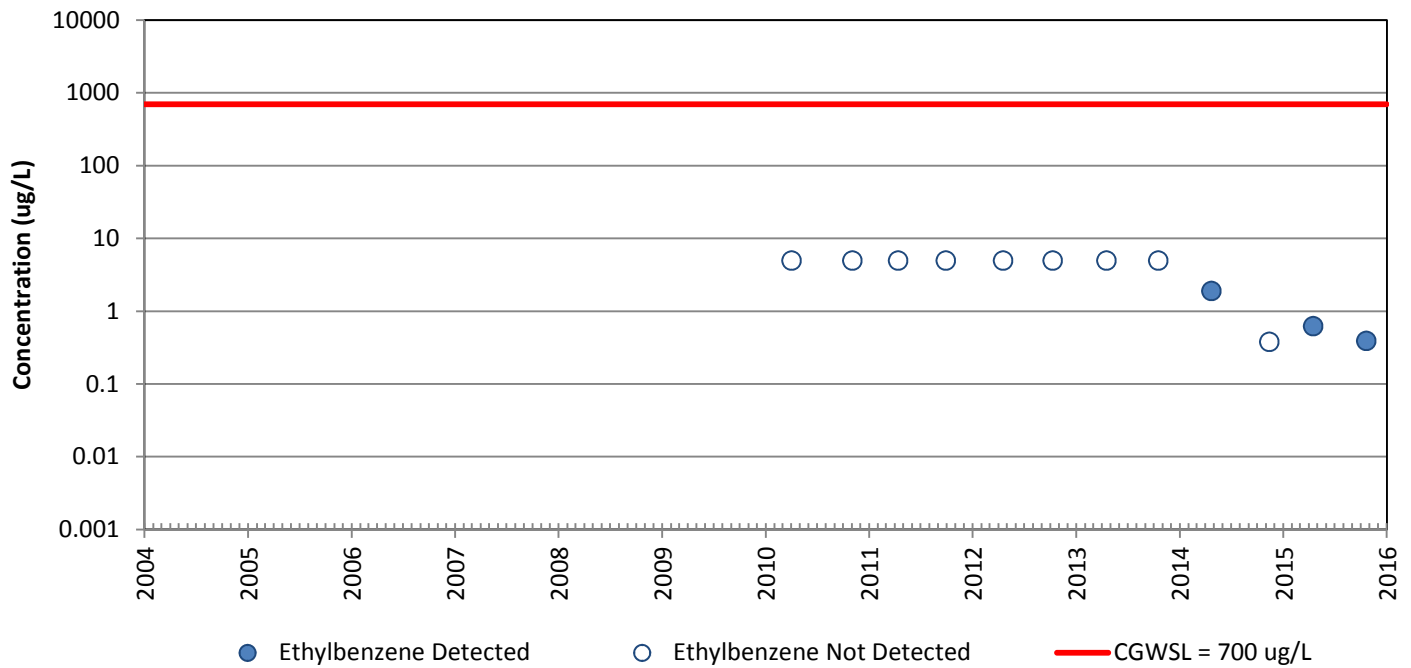


# MW-60

## Benzene

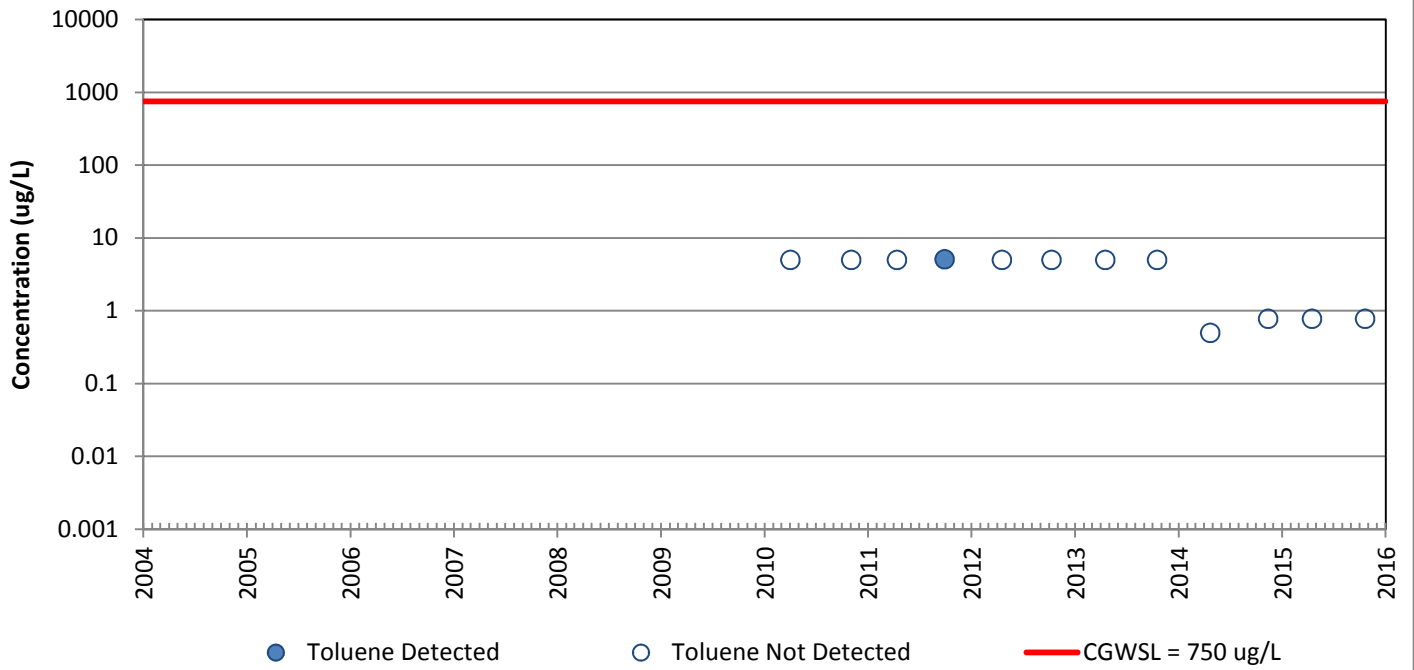


## Ethylbenzene

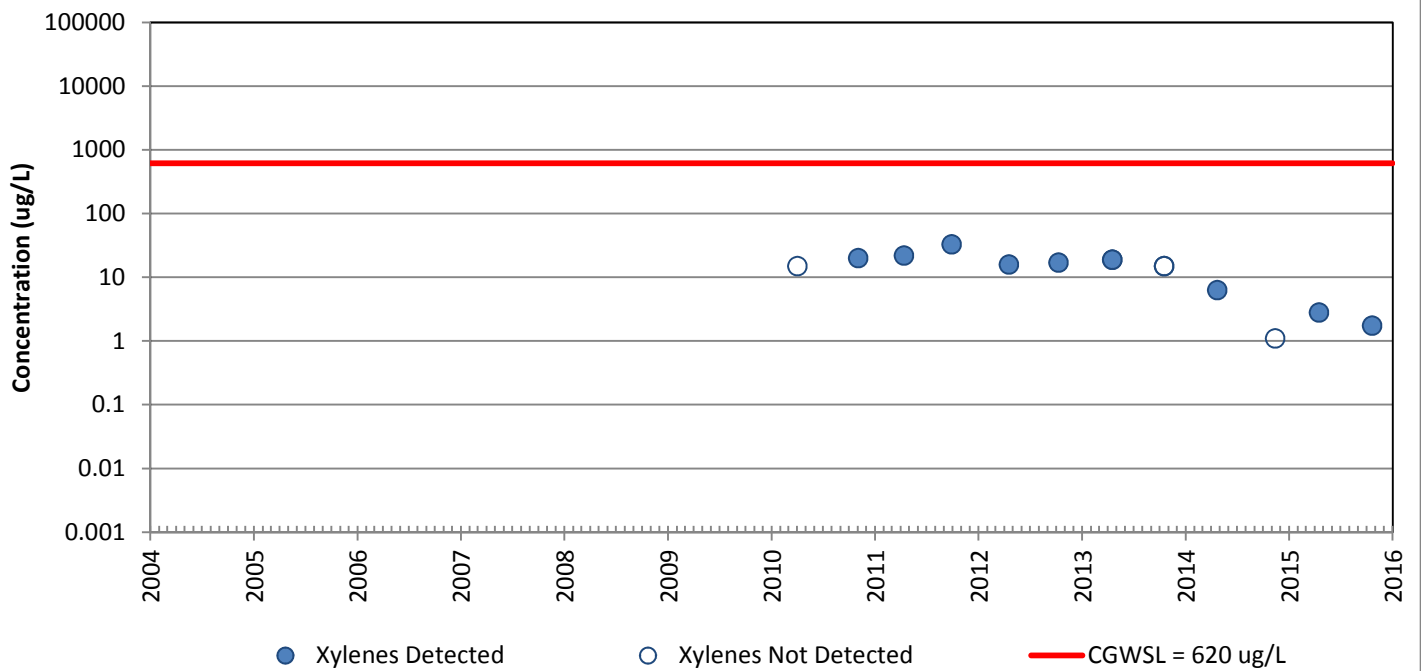


# MW-60

## Toluene

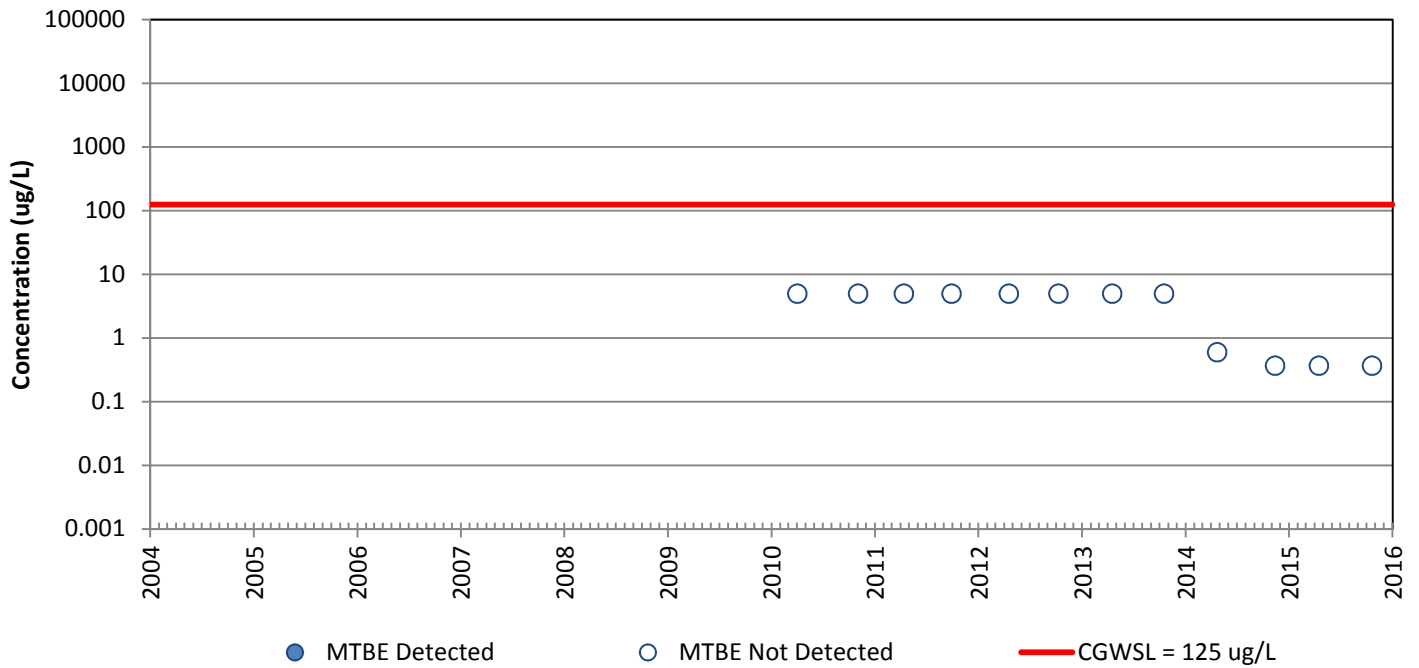


## Xylenes

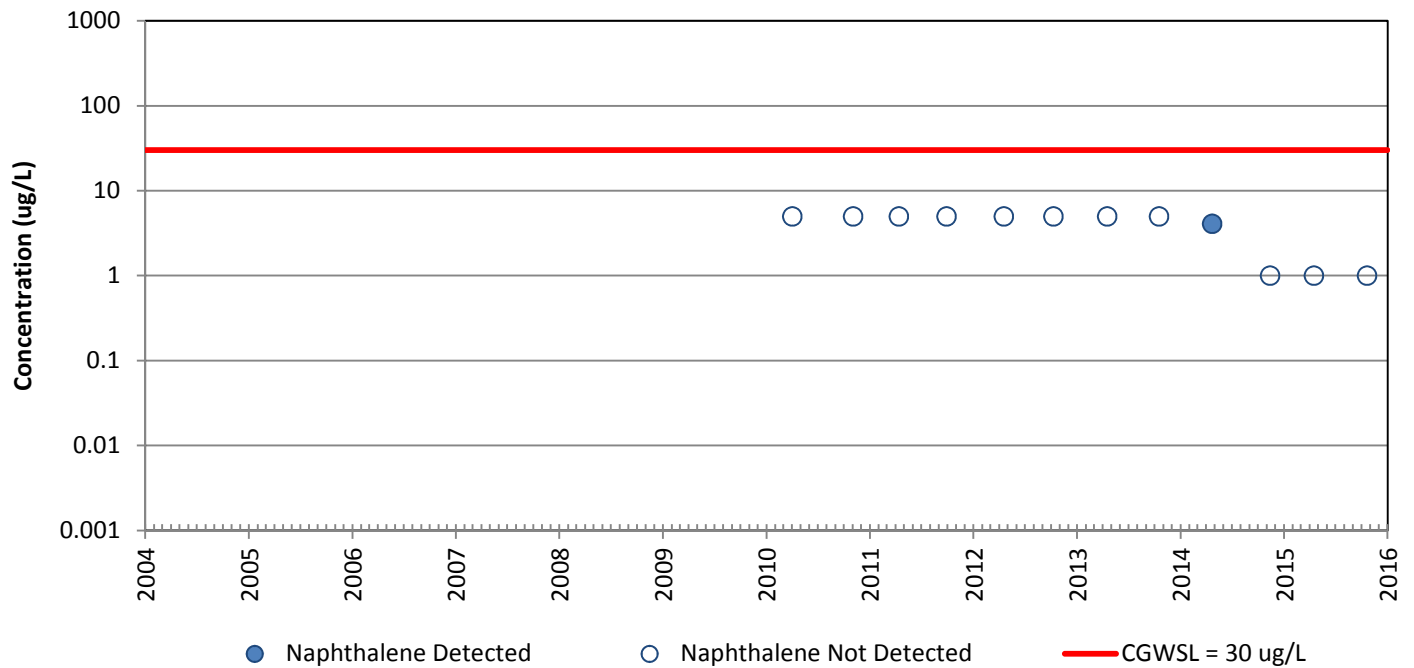


# MW-60

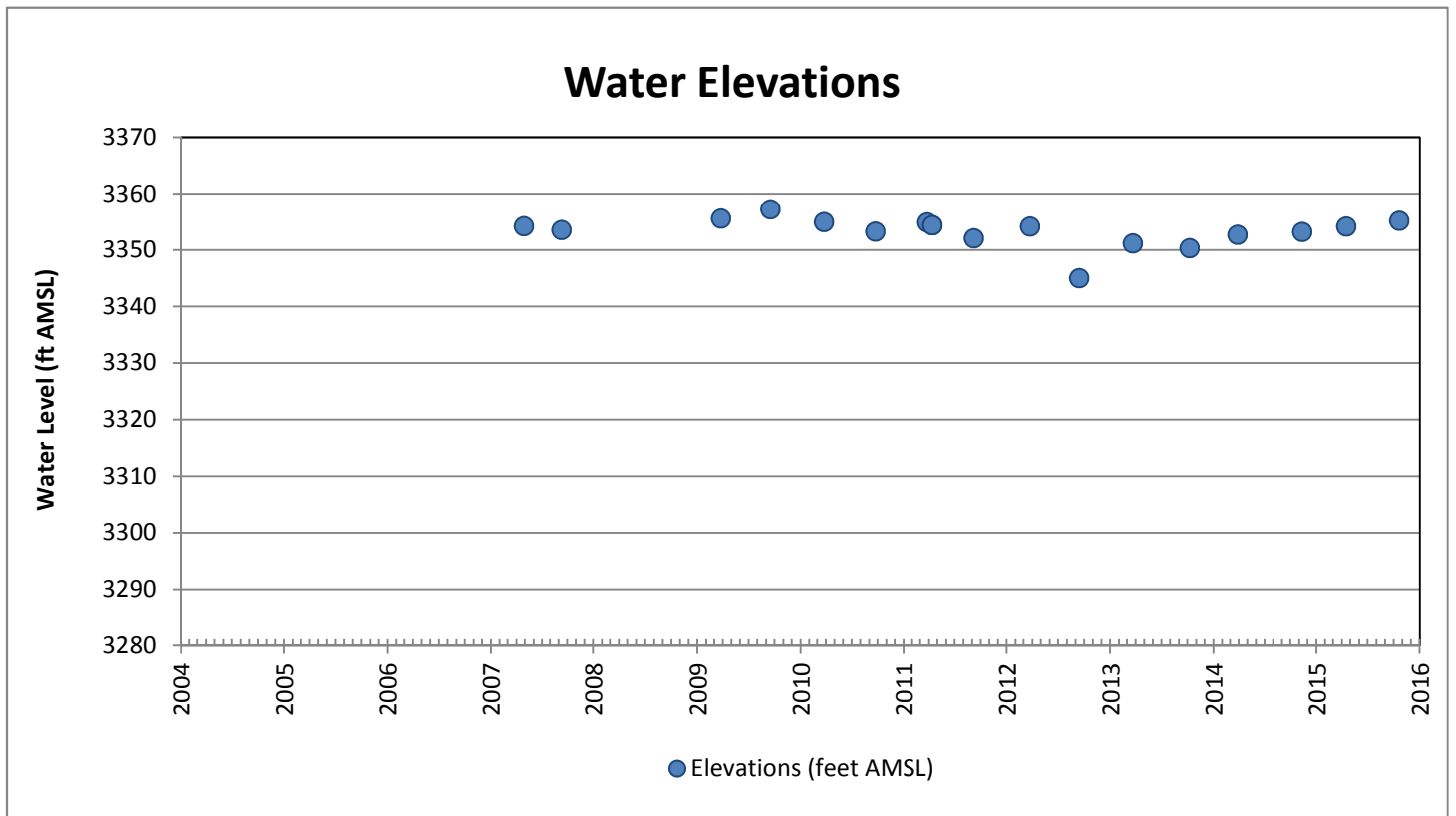
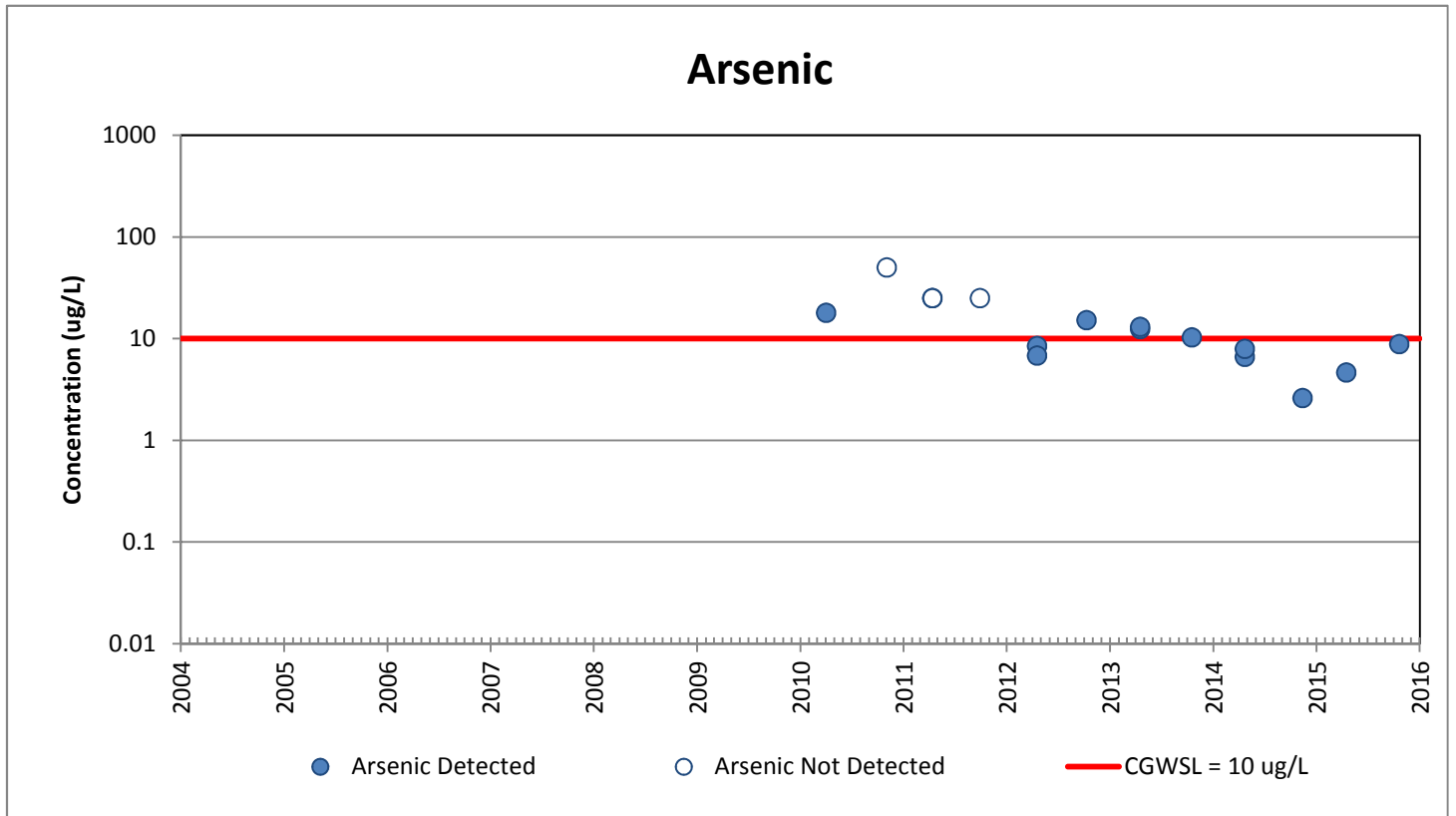
## MTBE



## Naphthalene

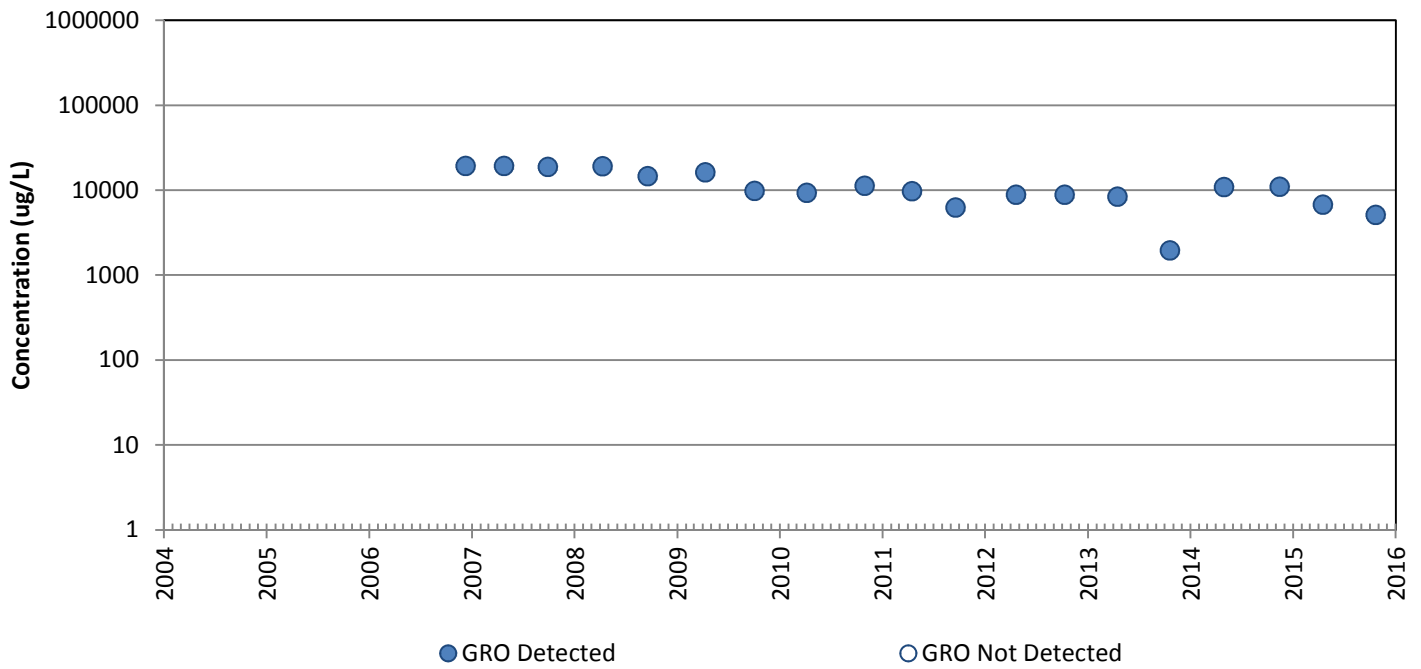


# MW-60

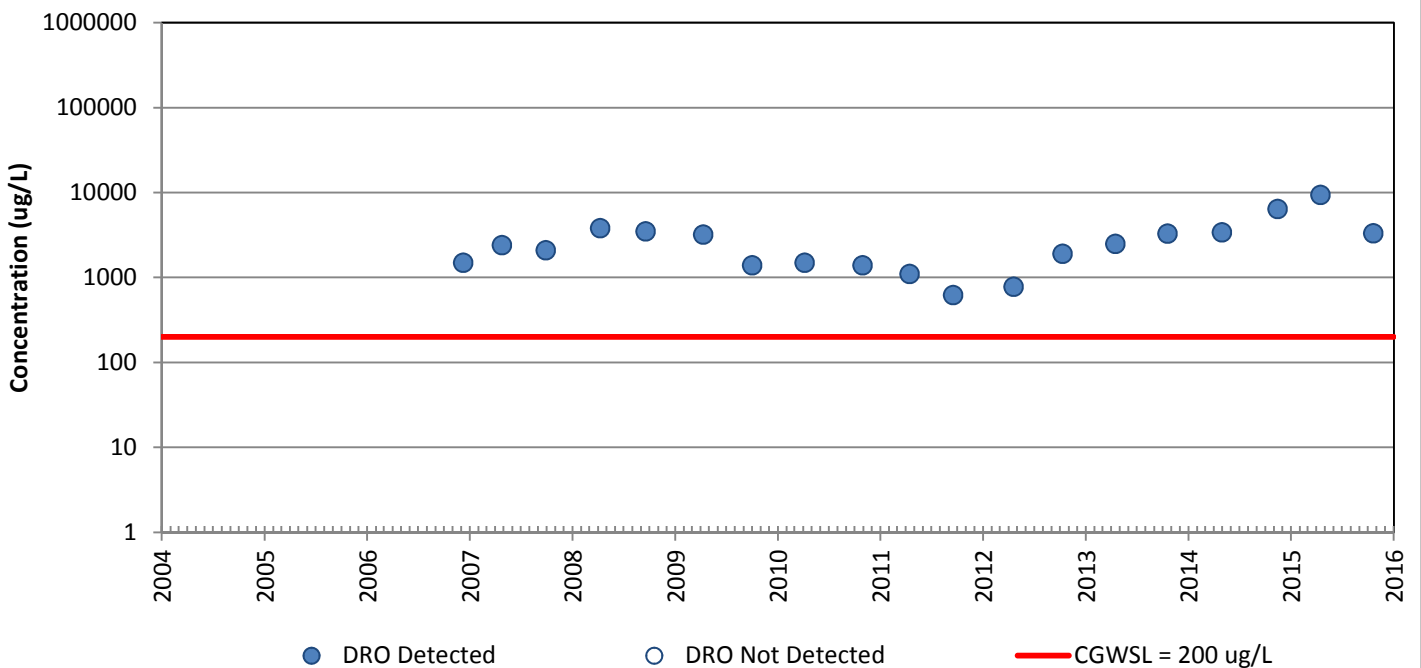


# MW-61

## GRO

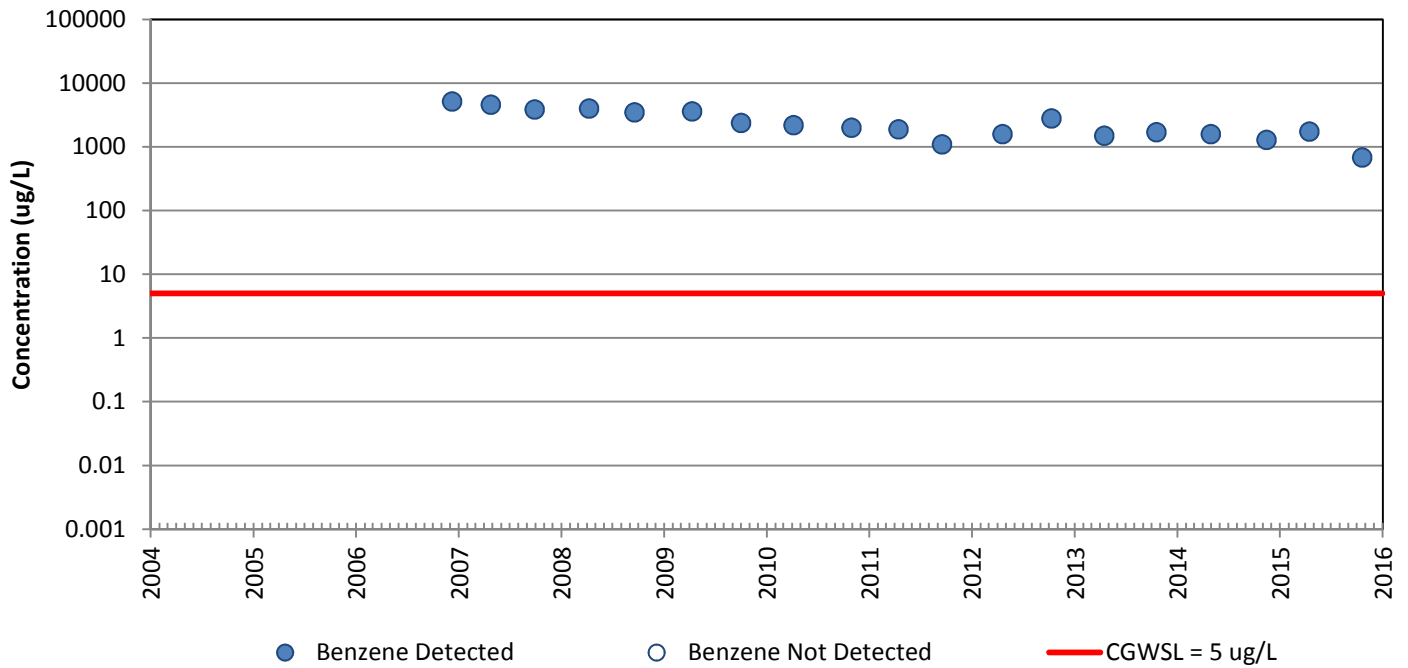


## DRO

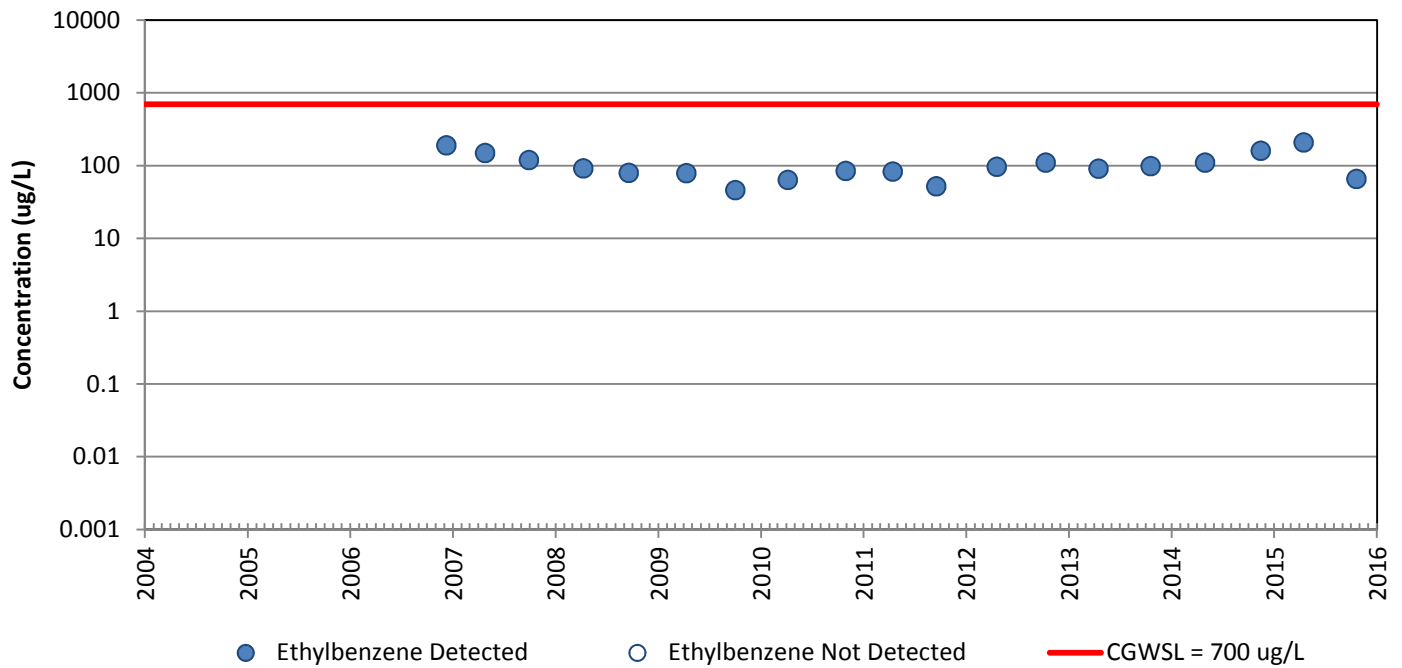


# MW-61

## Benzene

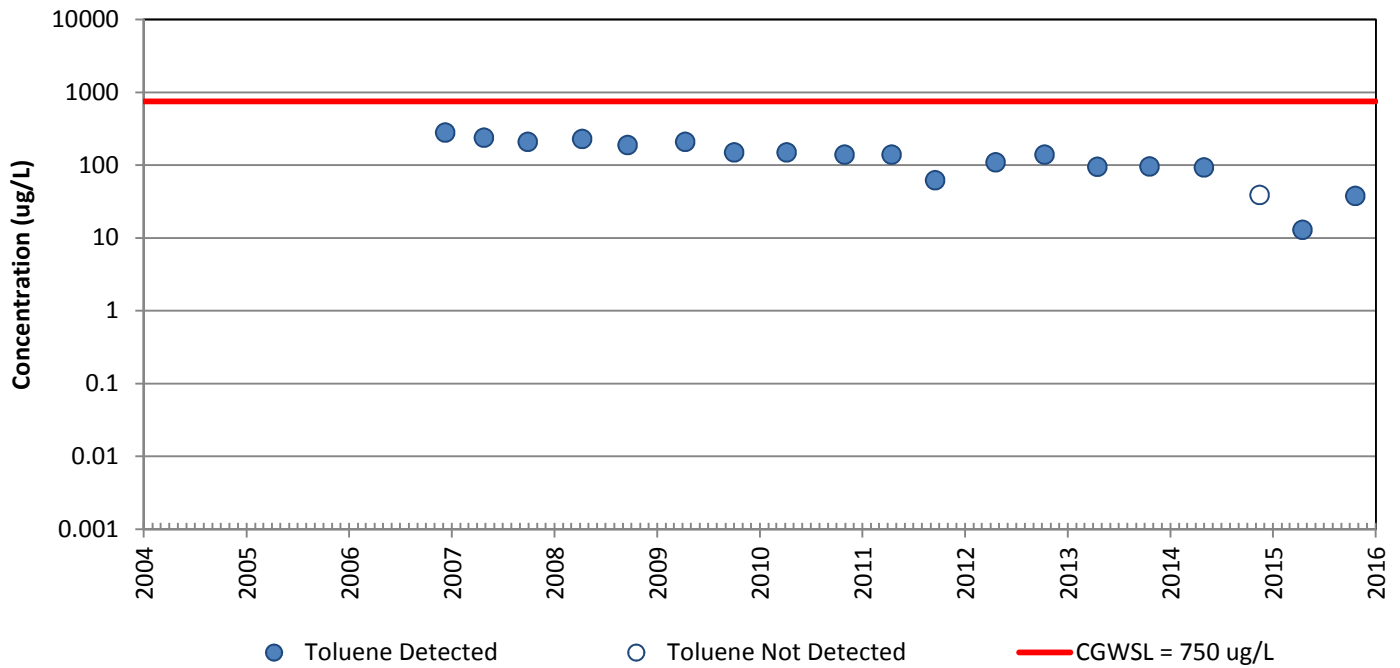


## Ethylbenzene

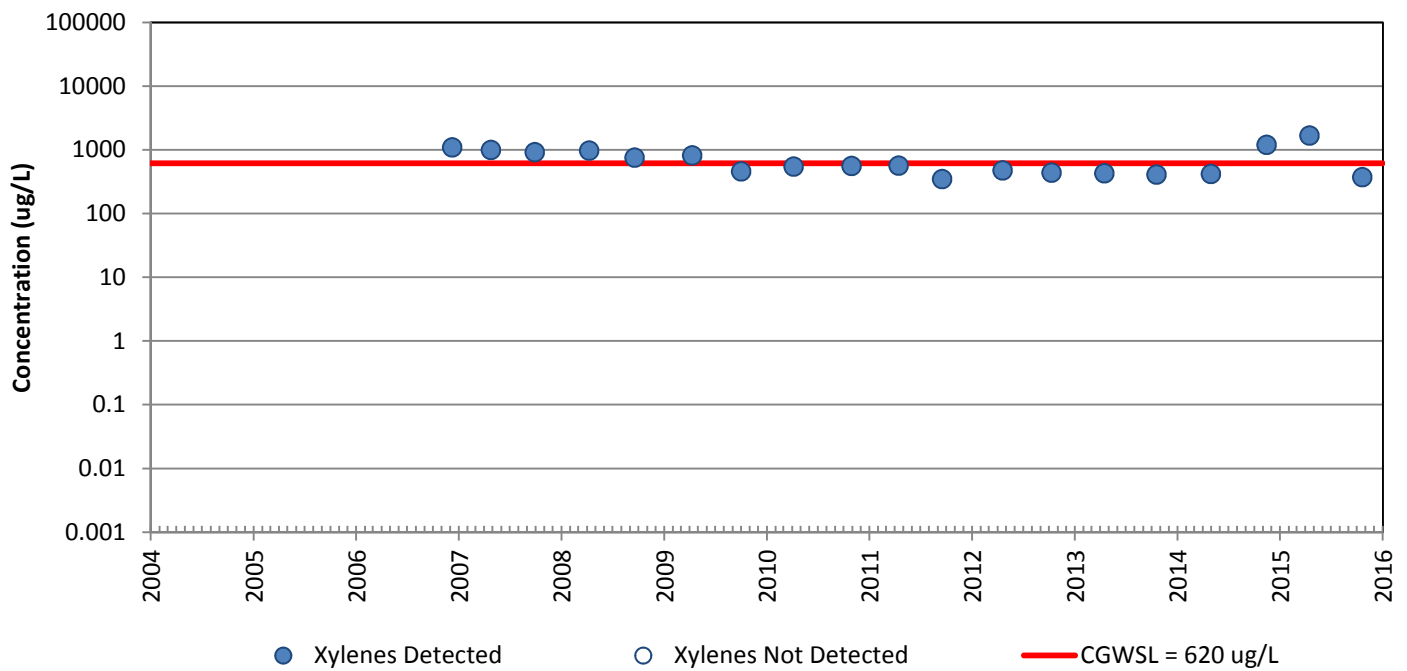


# MW-61

## Toluene

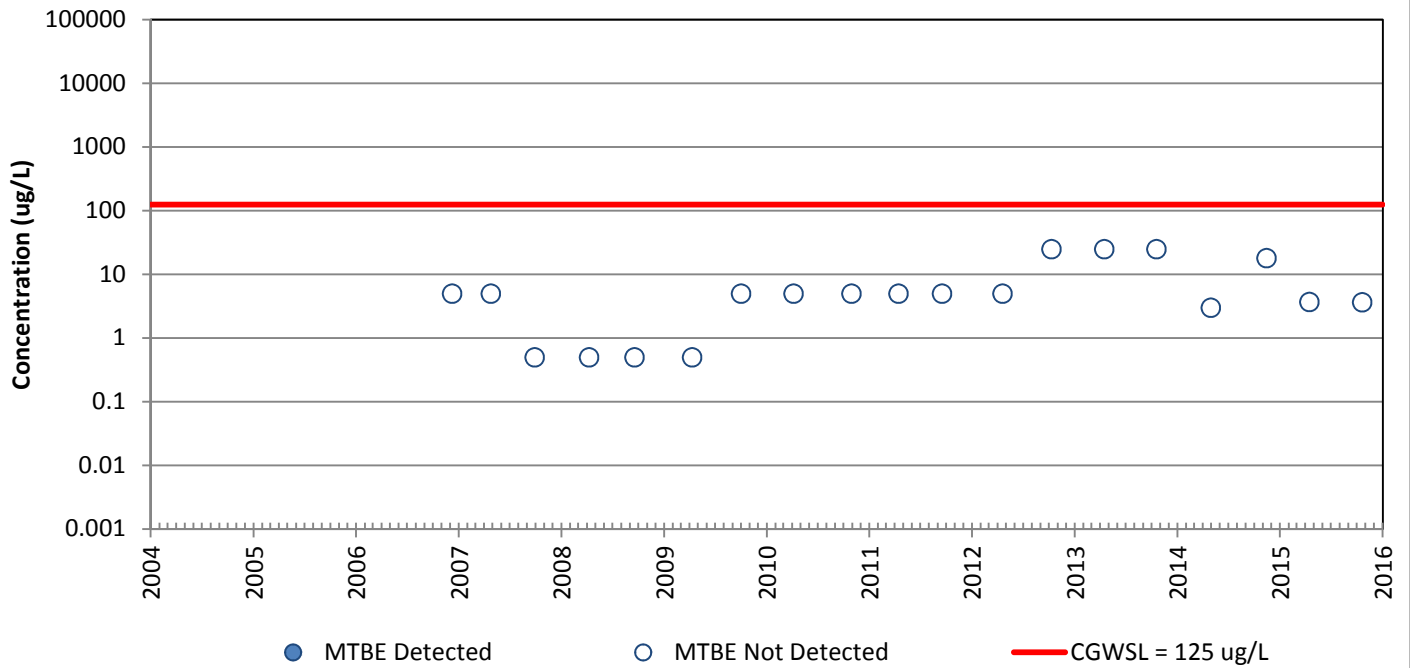


## Xylenes

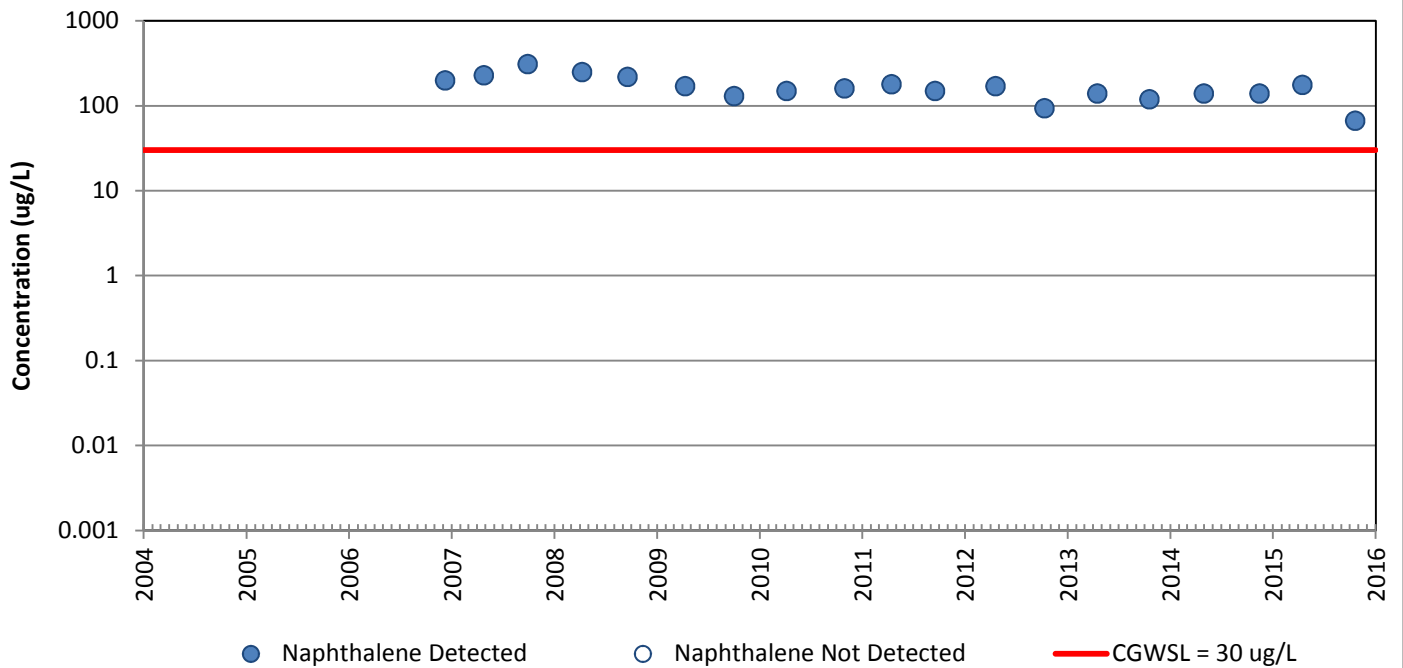


# MW-61

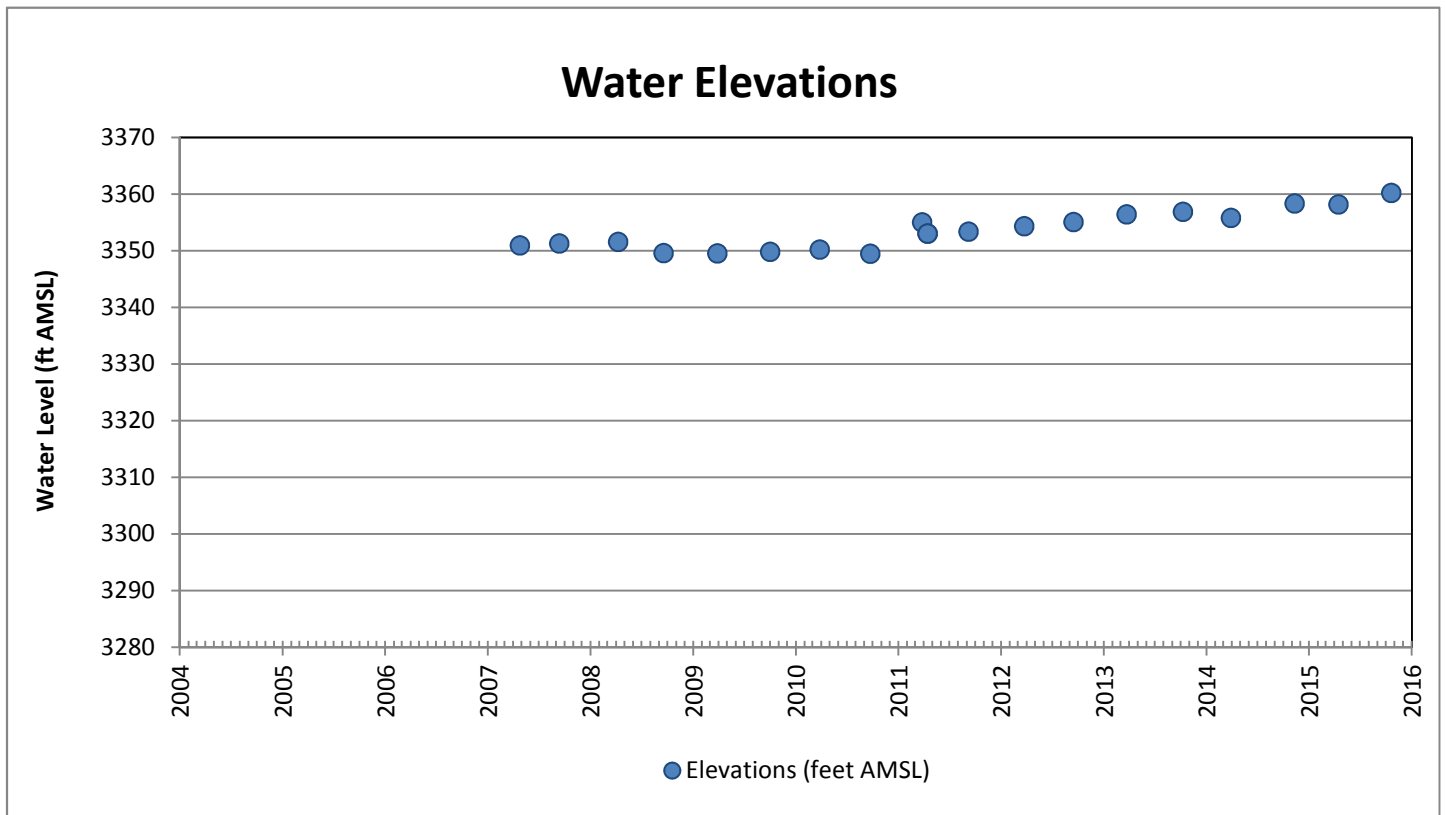
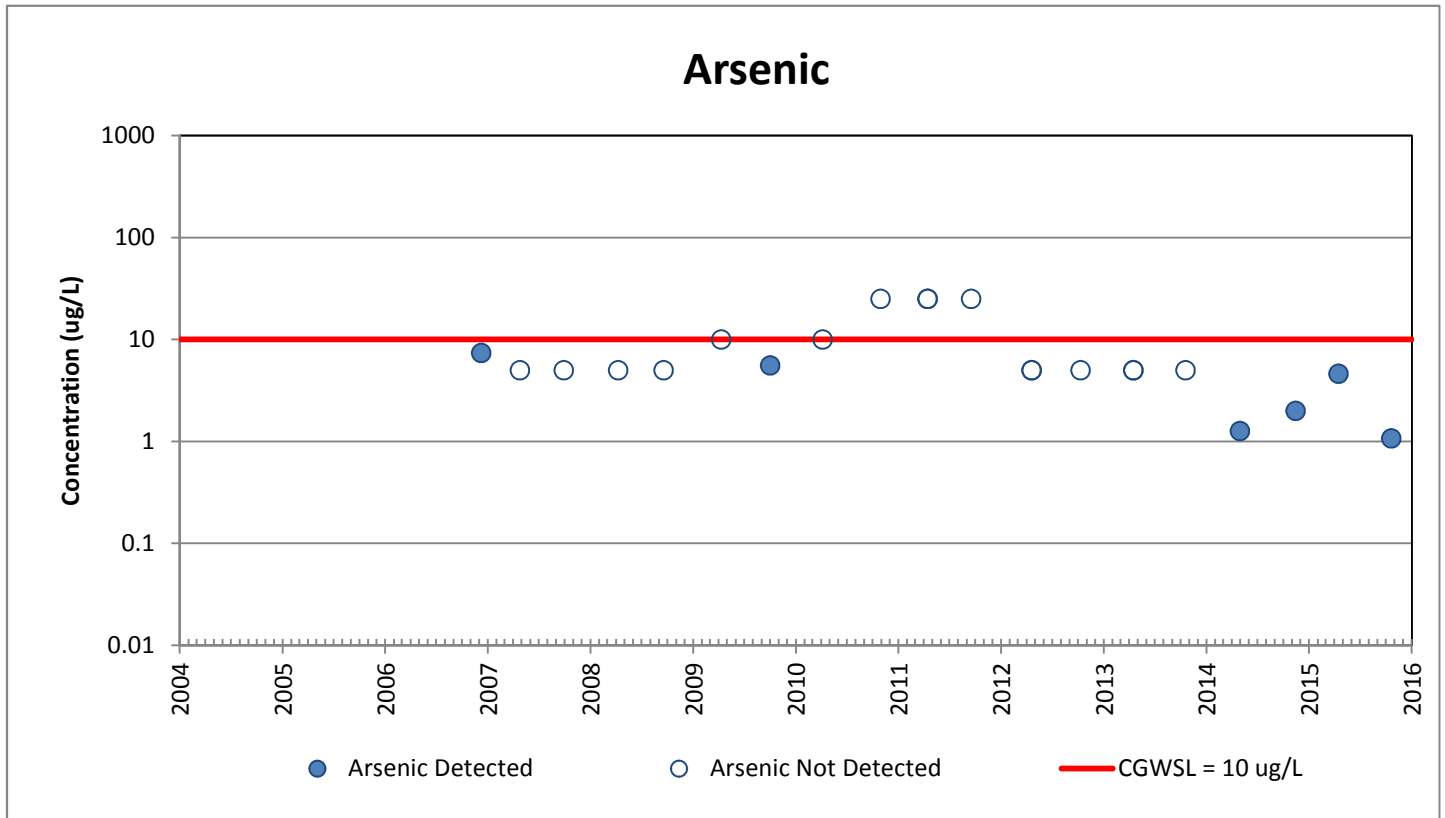
## MTBE



## Naphthalene

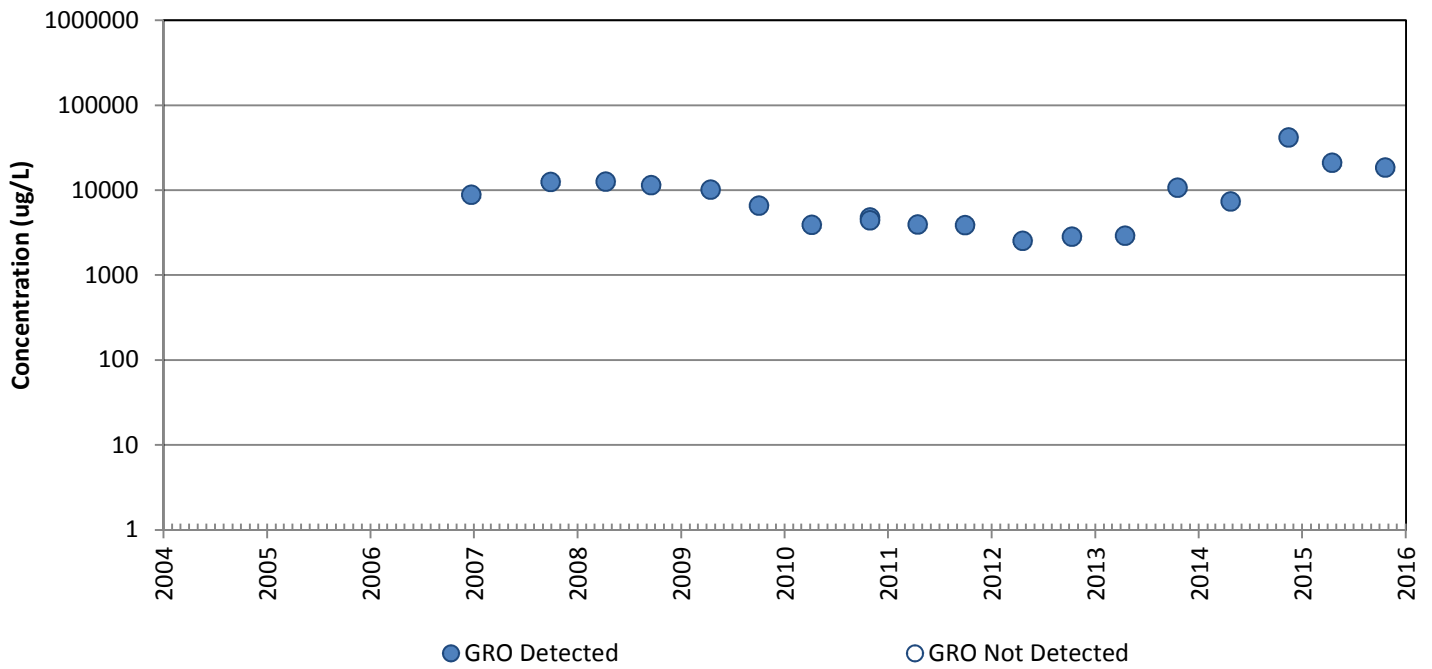


# MW-61

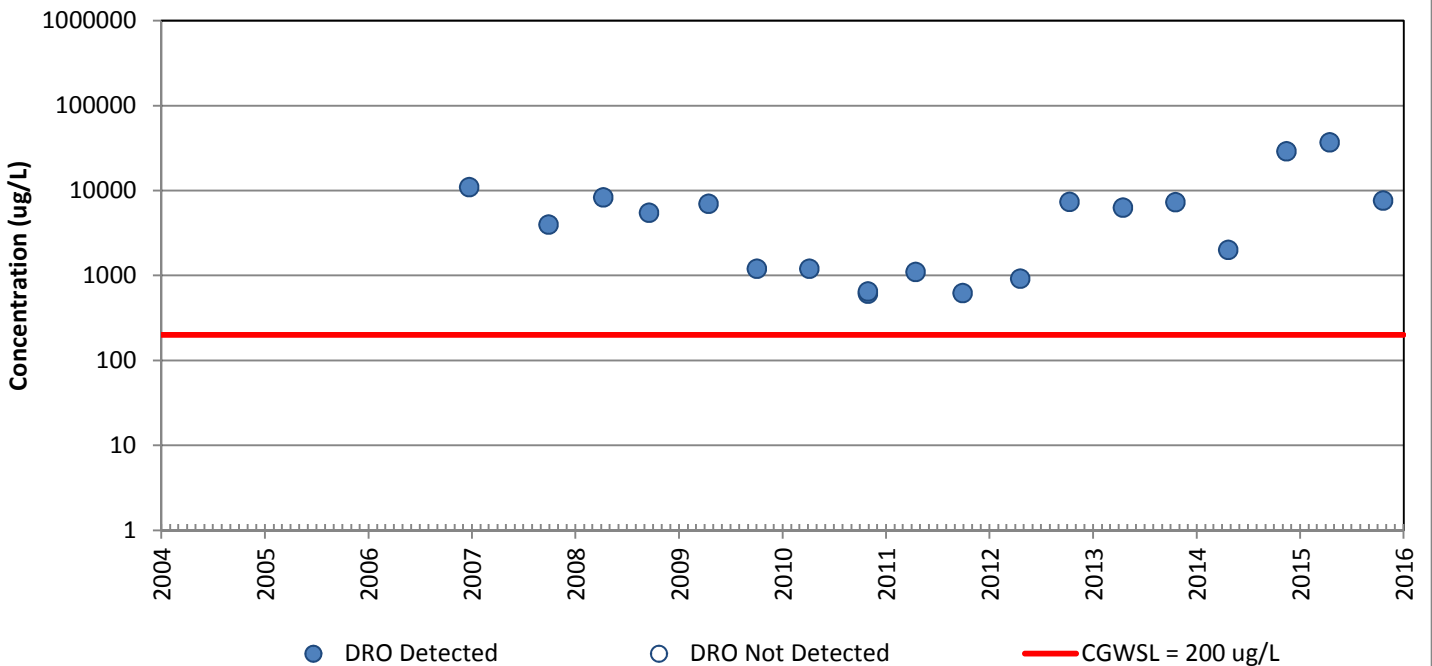


# MW-62

## GRO

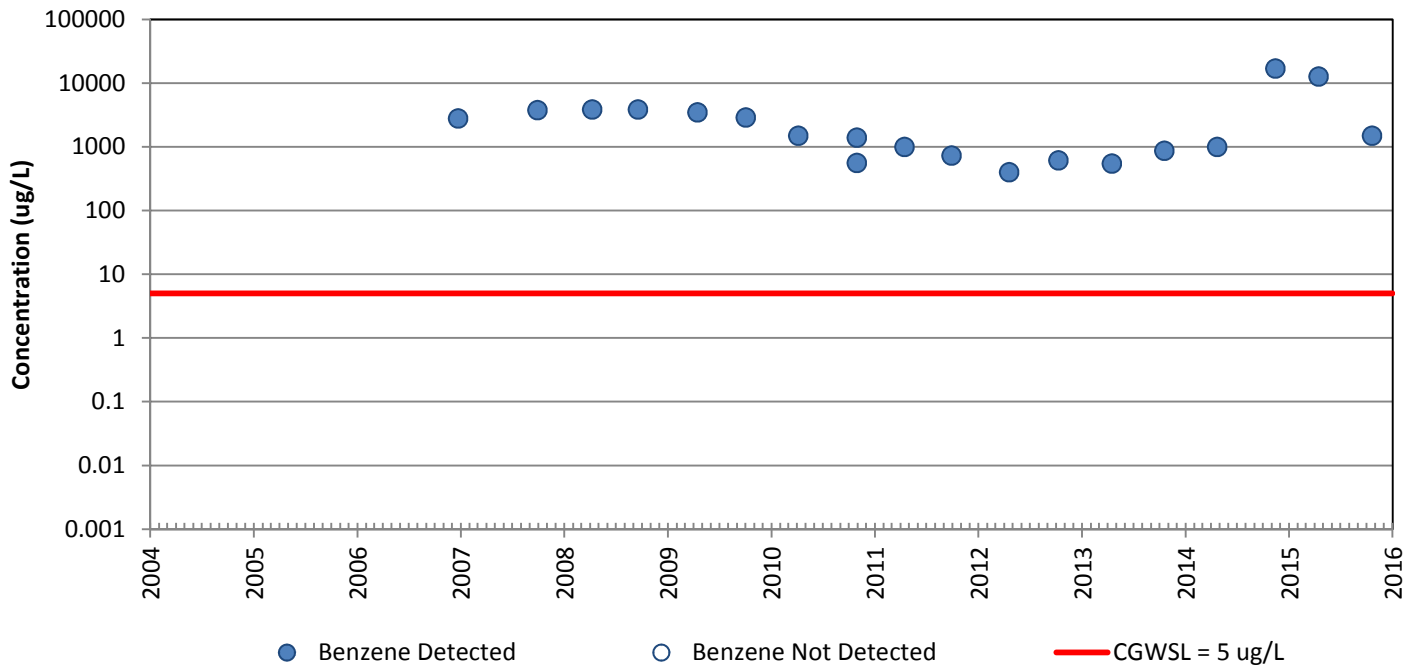


## DRO

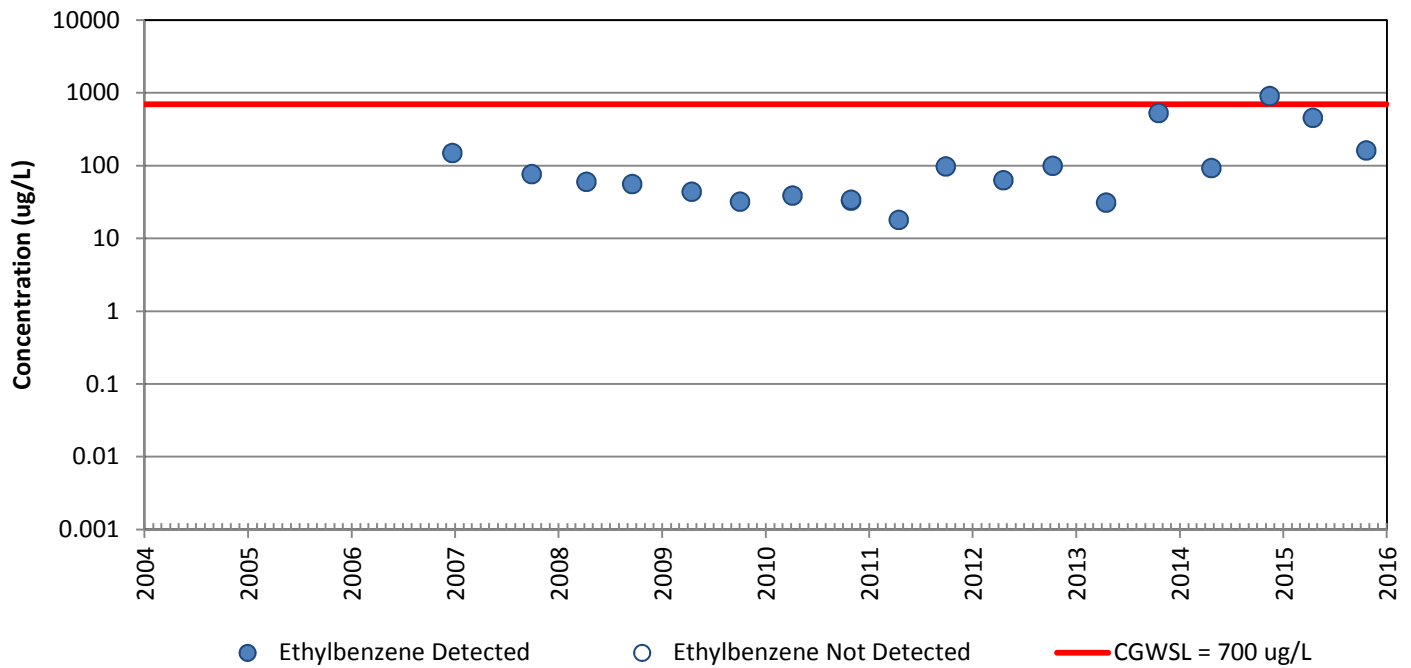


# MW-62

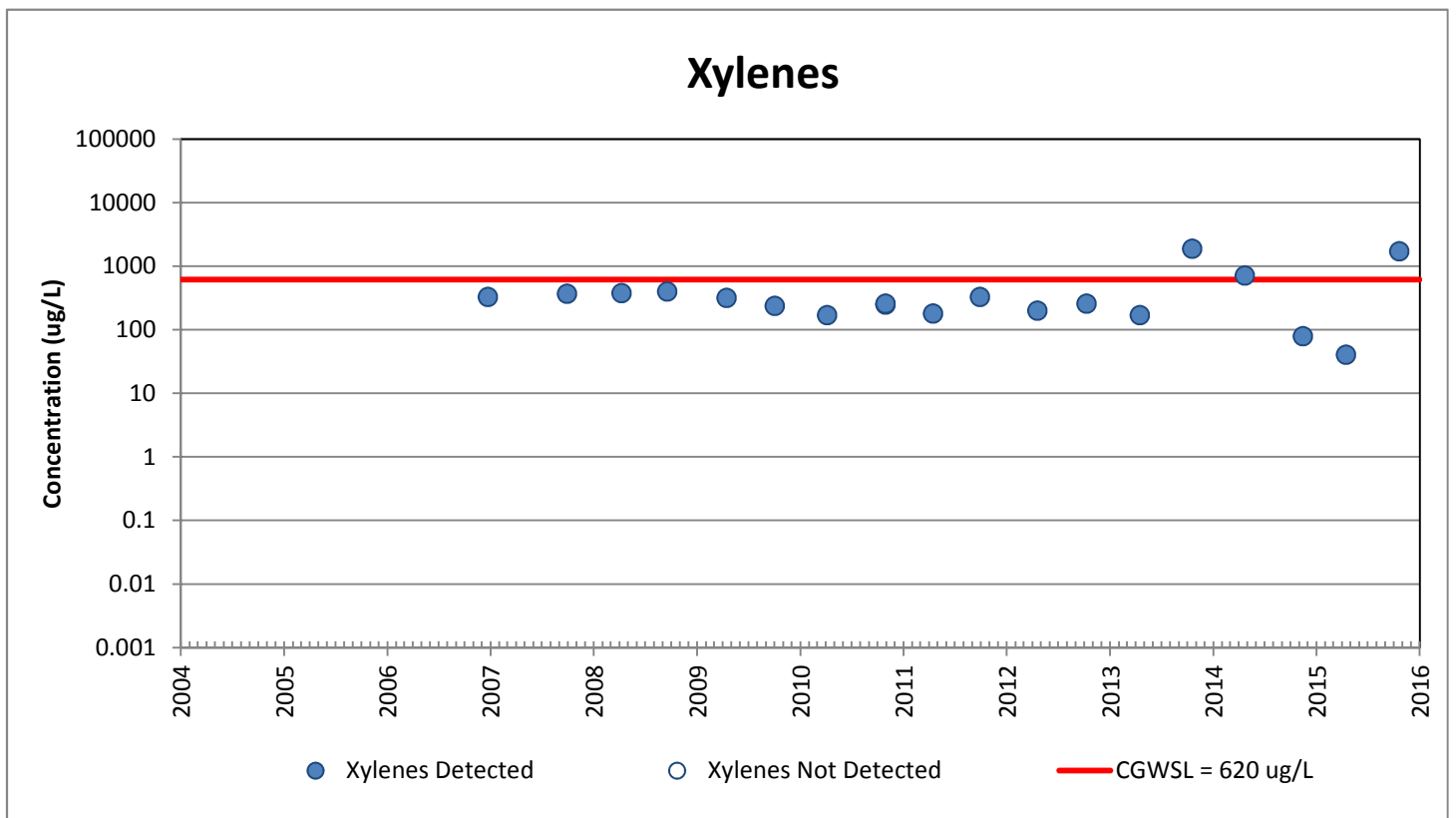
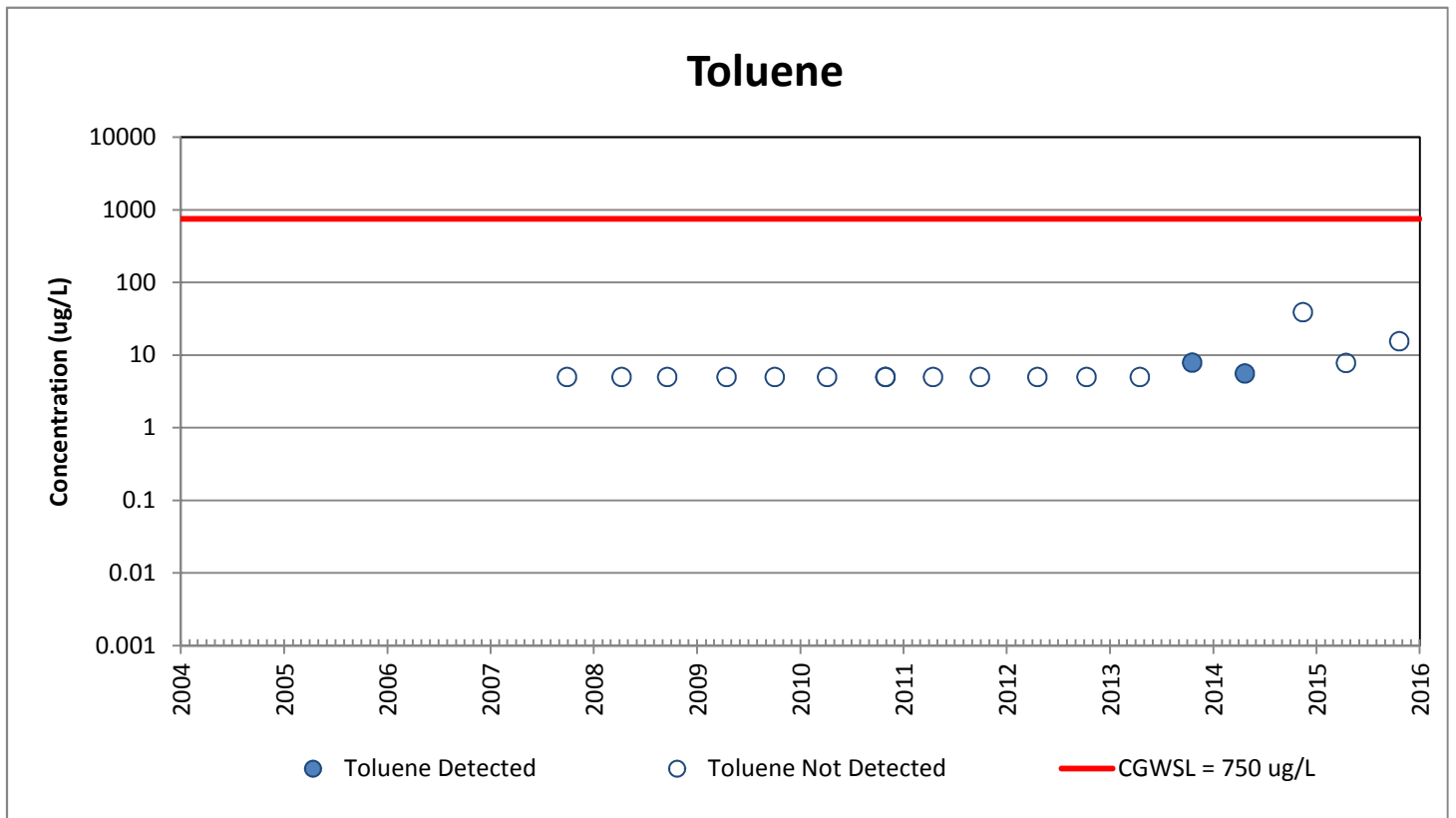
## Benzene



## Ethylbenzene

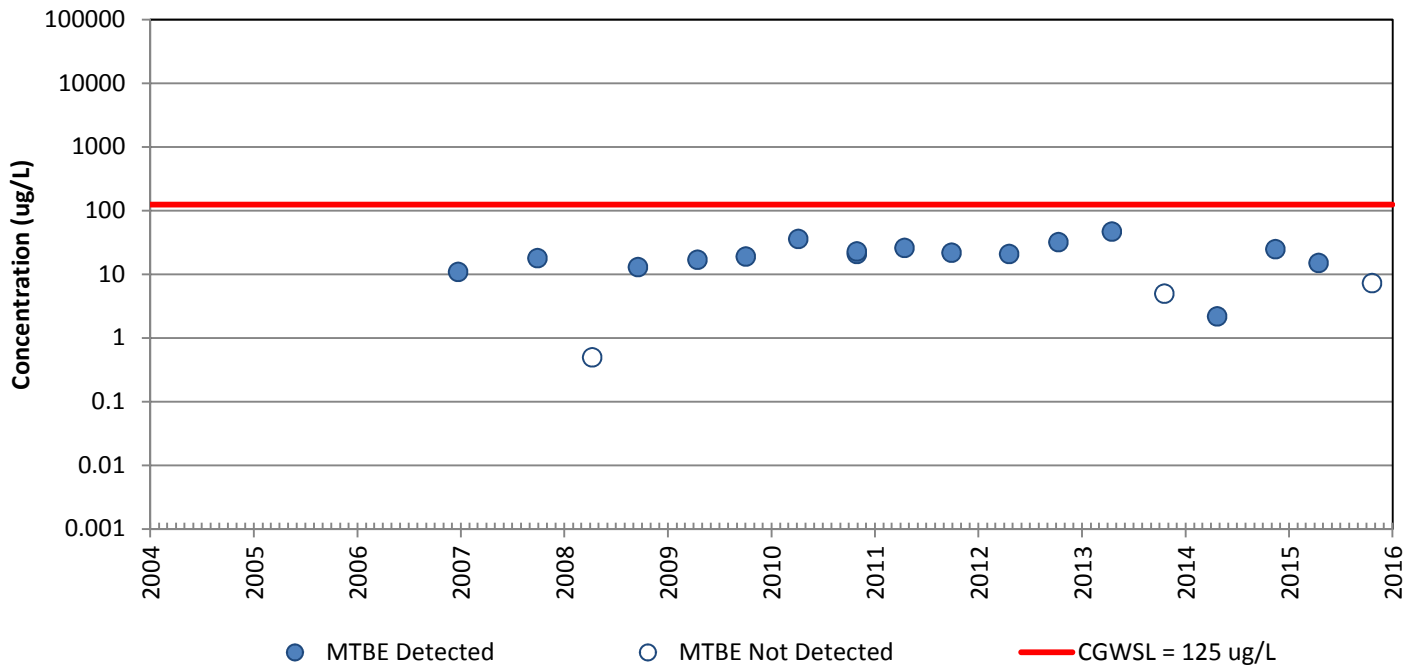


# MW-62

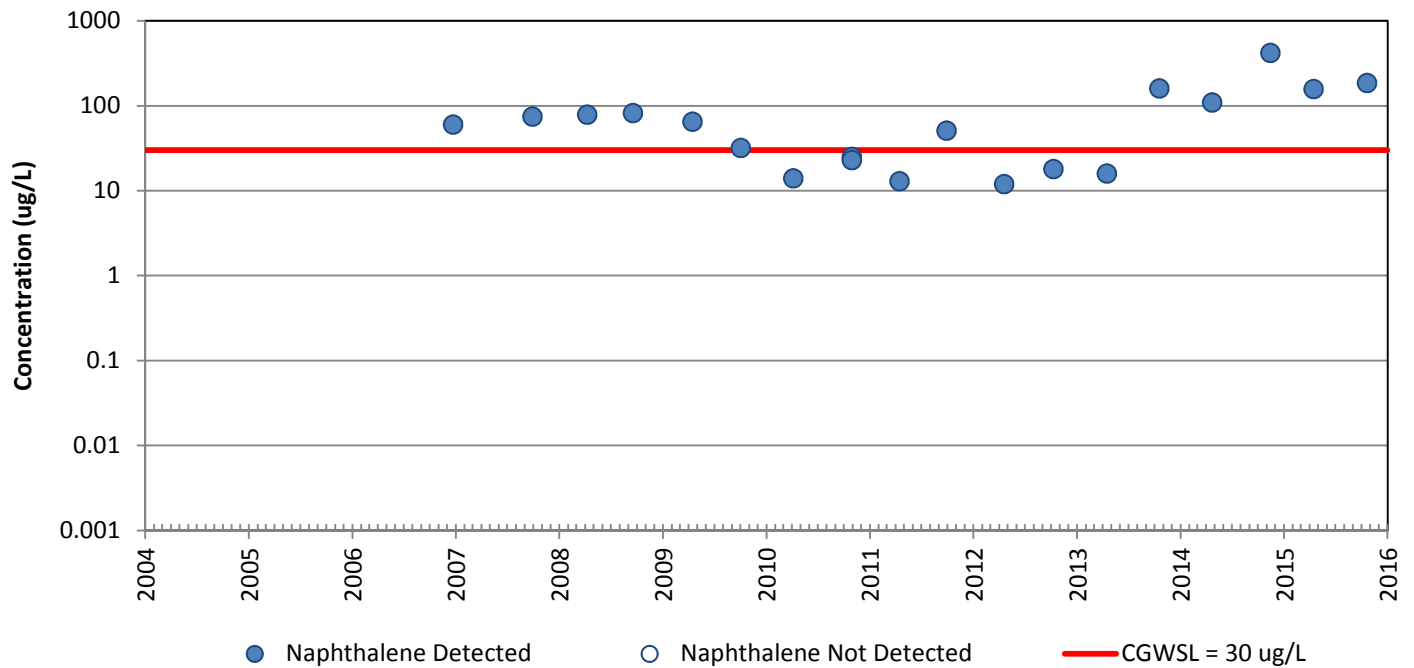


# MW-62

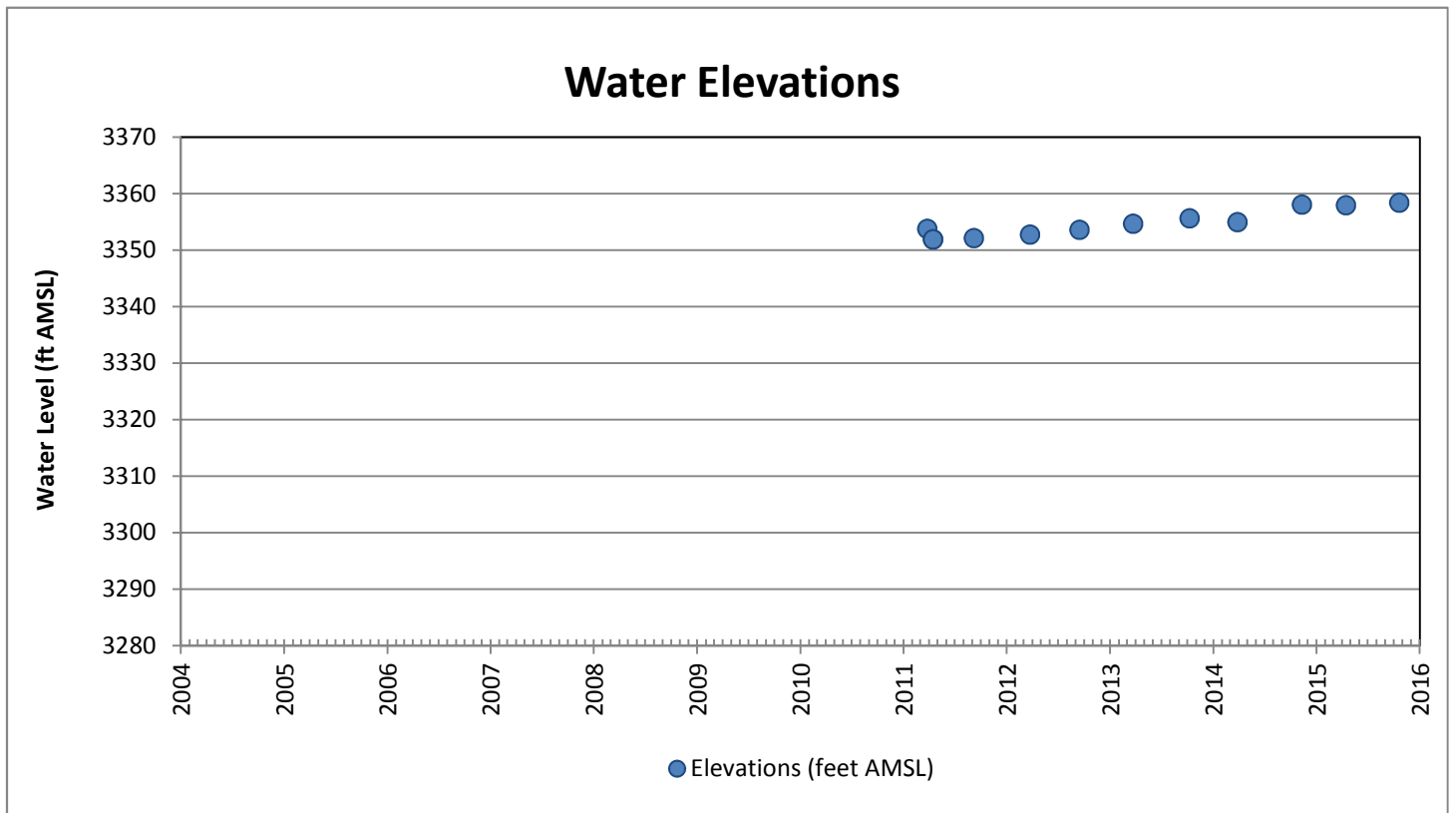
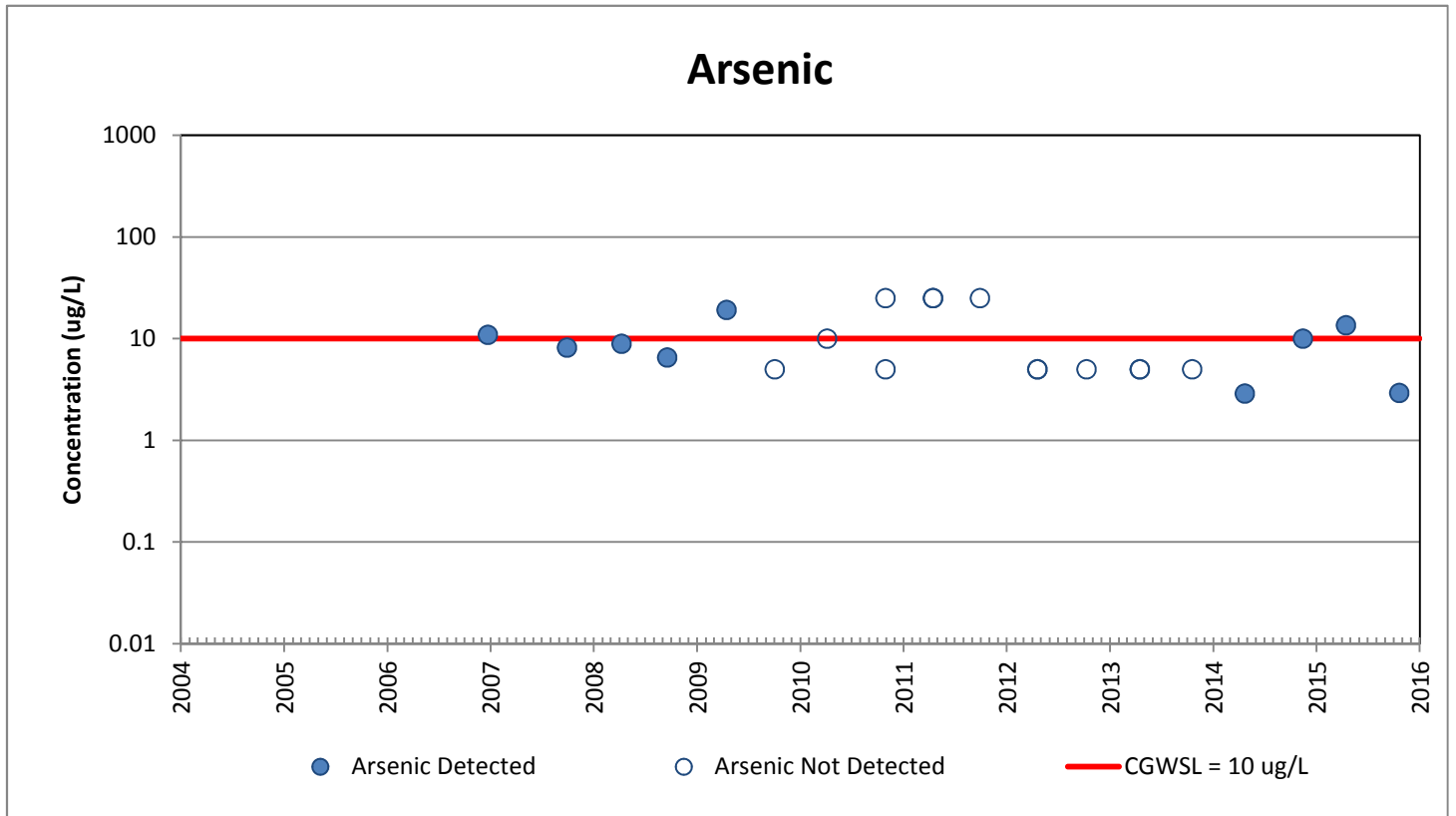
## MTBE



## Naphthalene

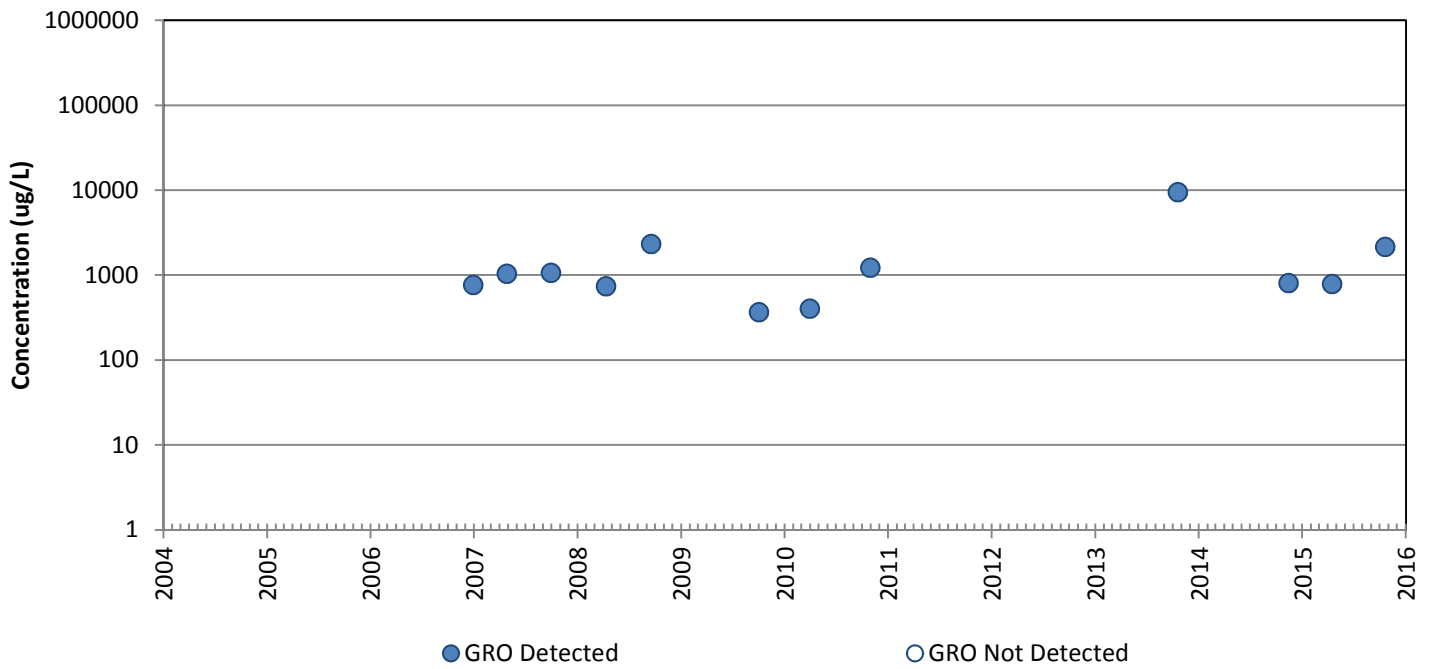


# MW-62

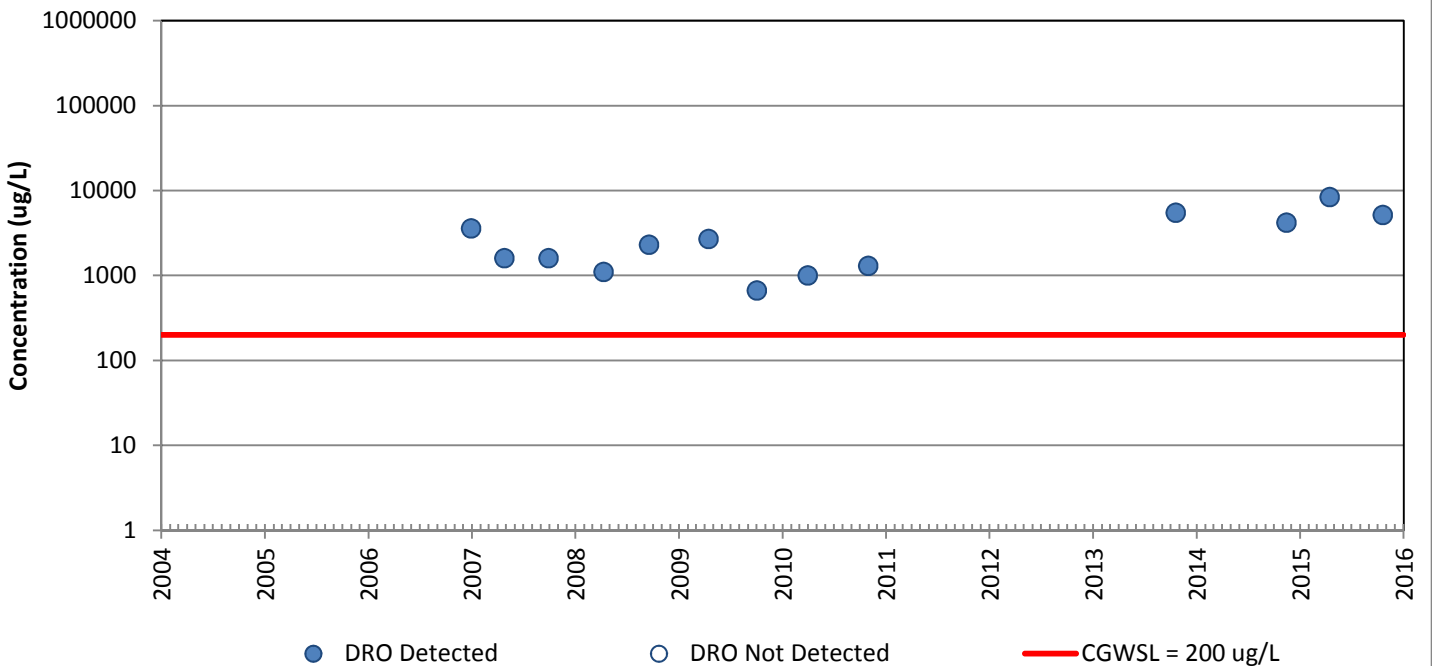


# MW-67

## GRO

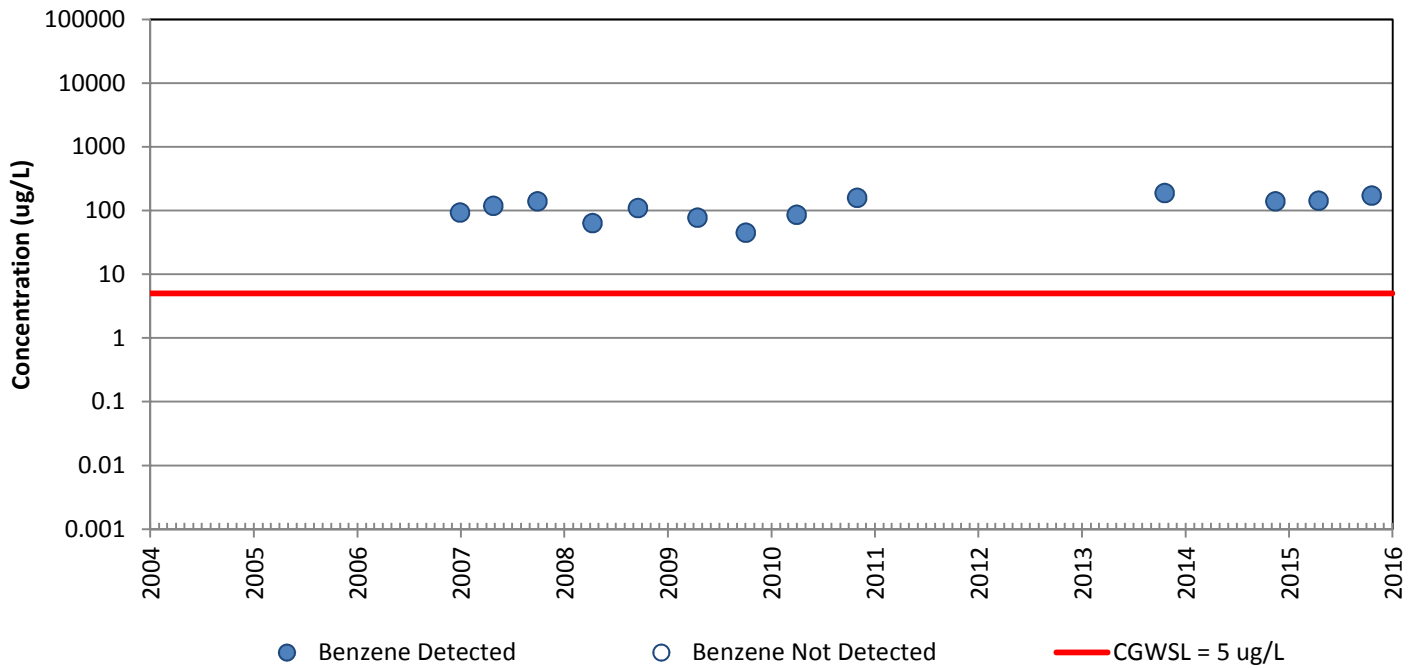


## DRO

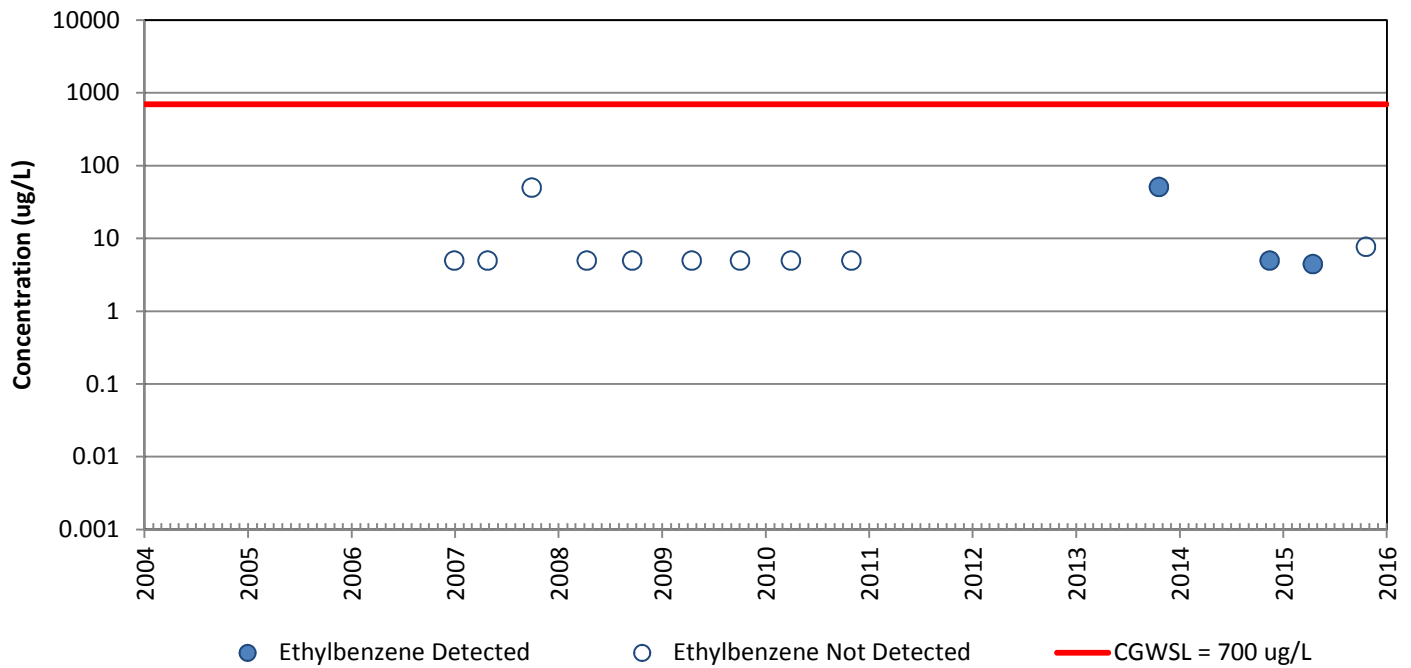


# MW-67

## Benzene

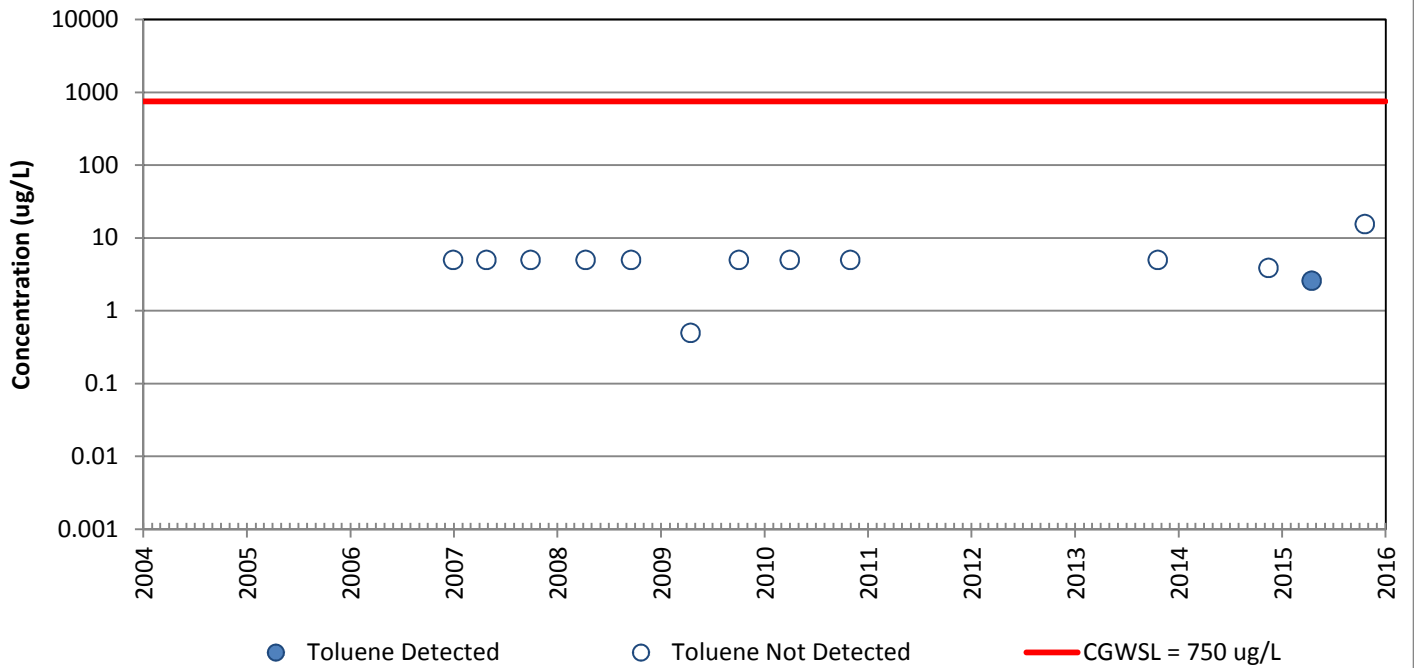


## Ethylbenzene

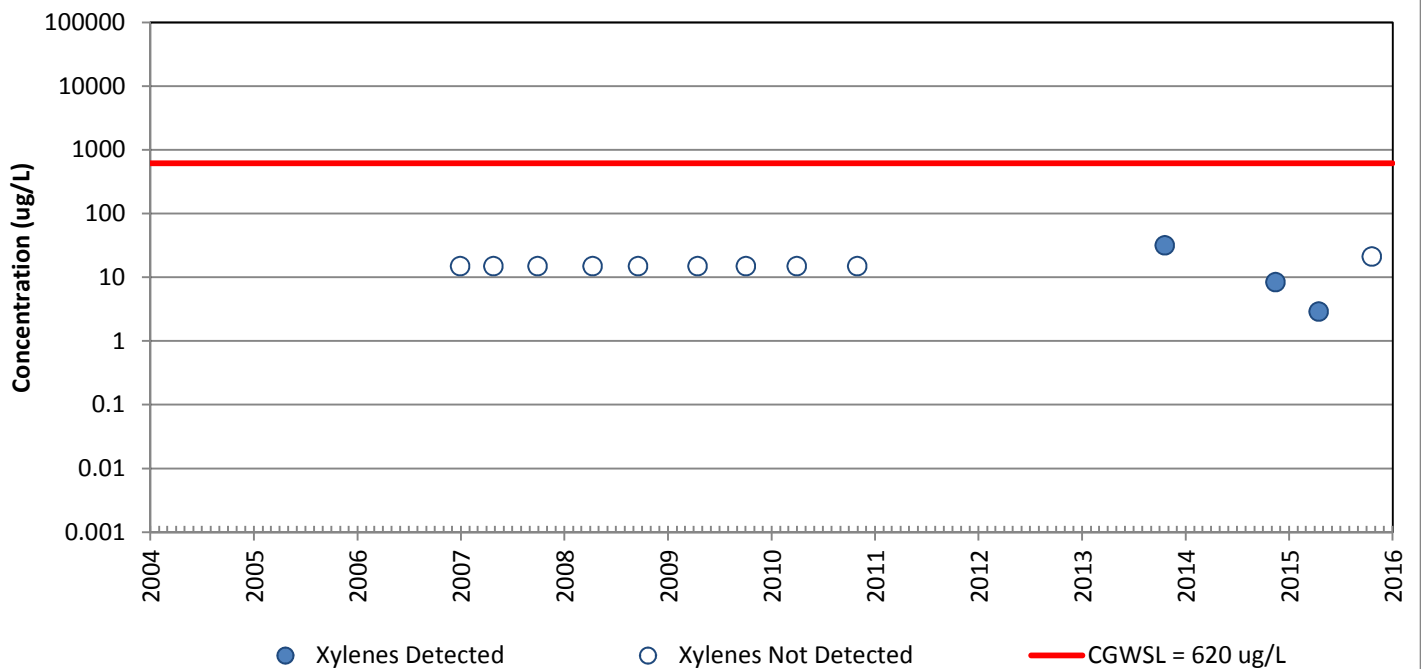


# MW-67

## Toluene

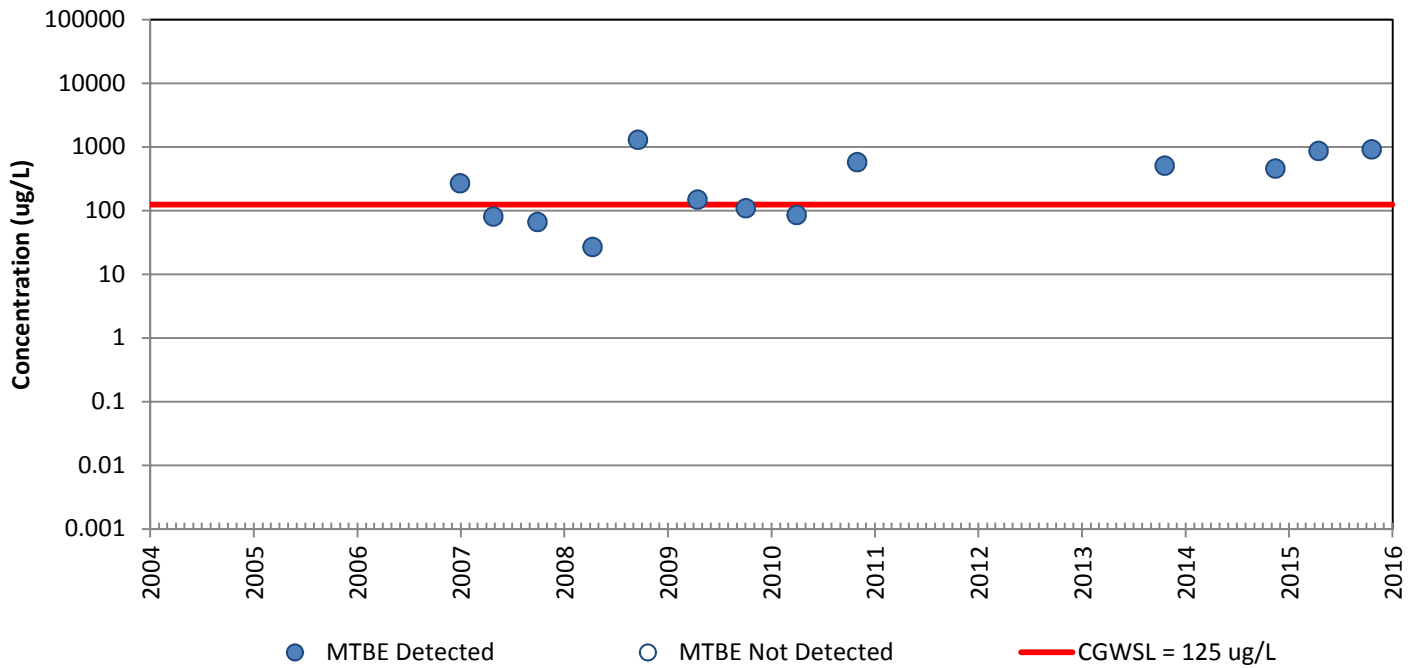


## Xylenes

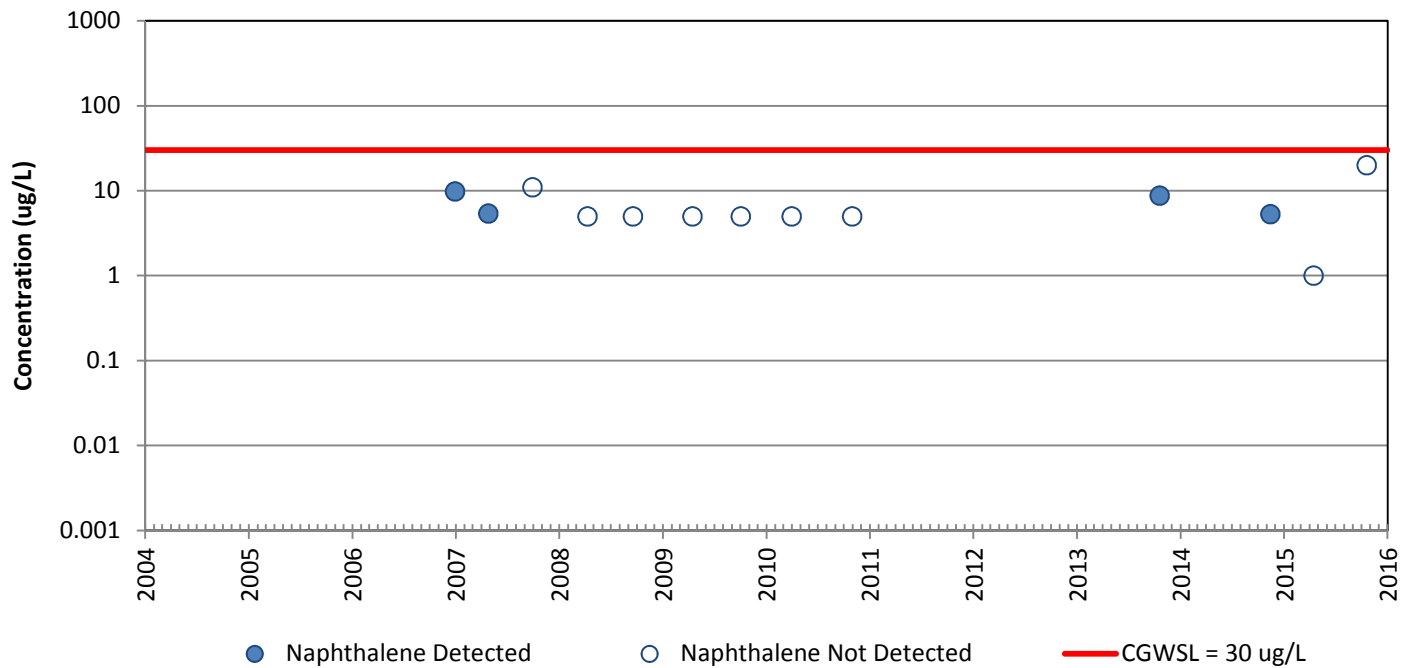


# MW-67

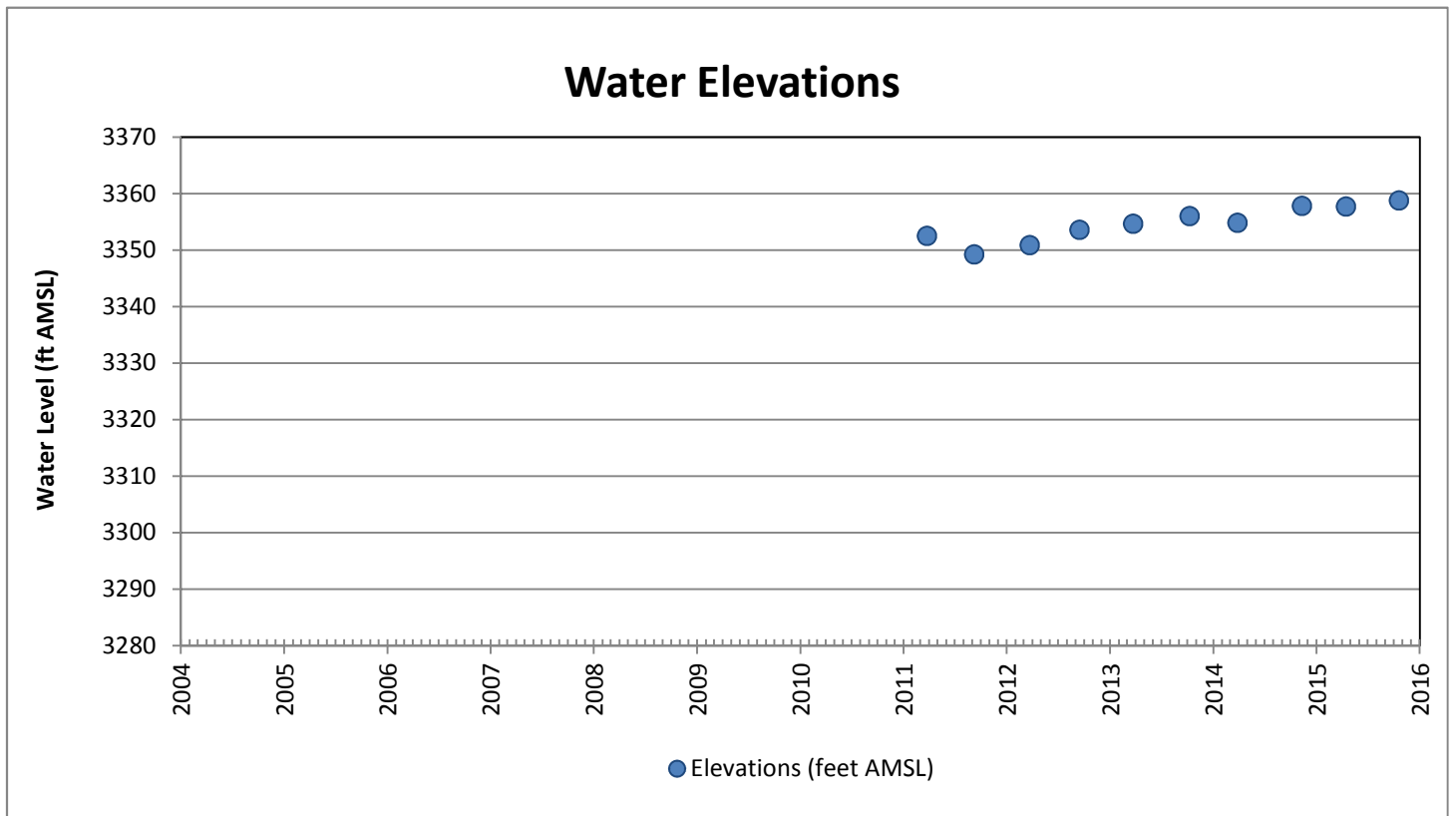
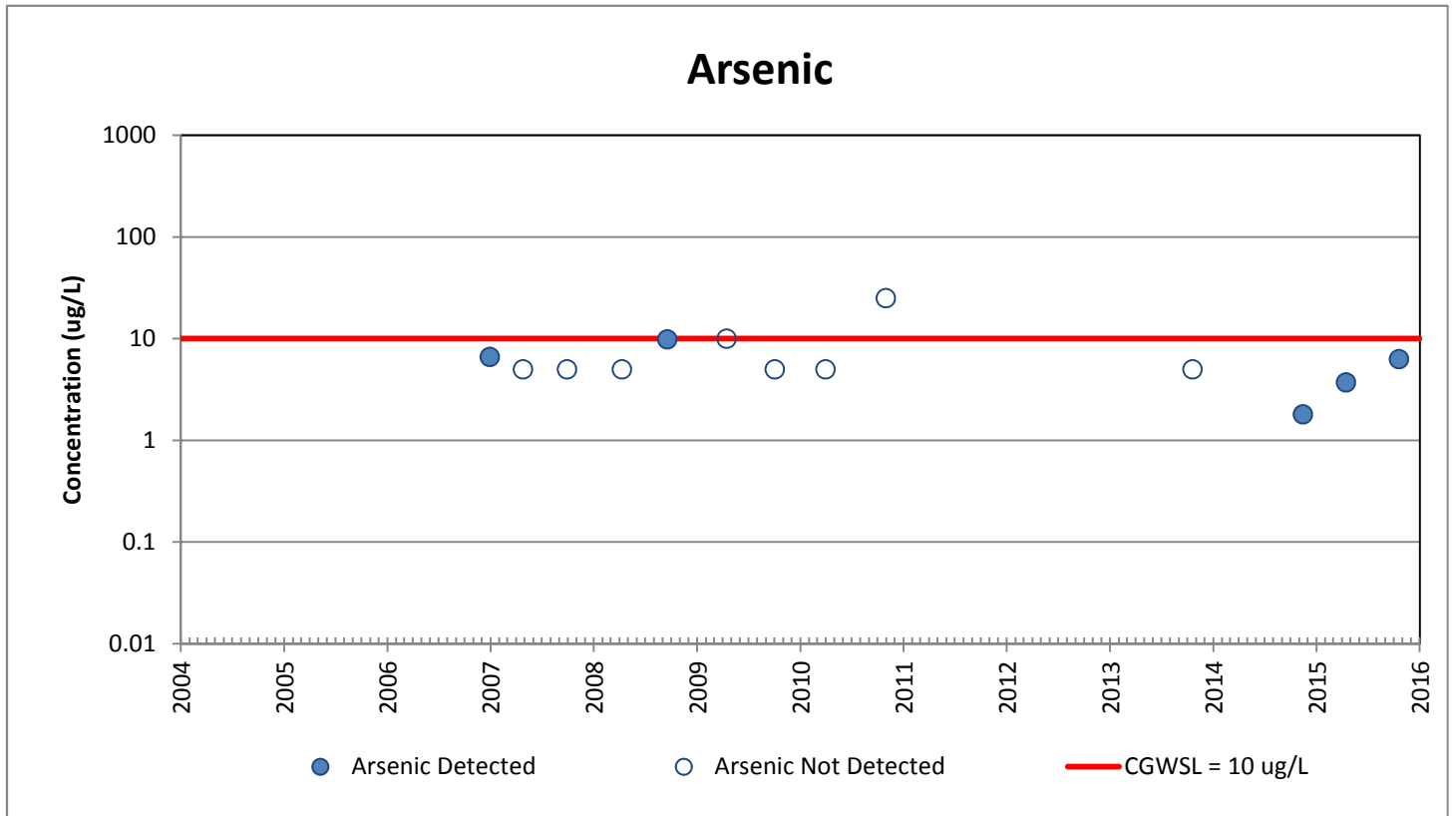
## MTBE



## Naphthalene

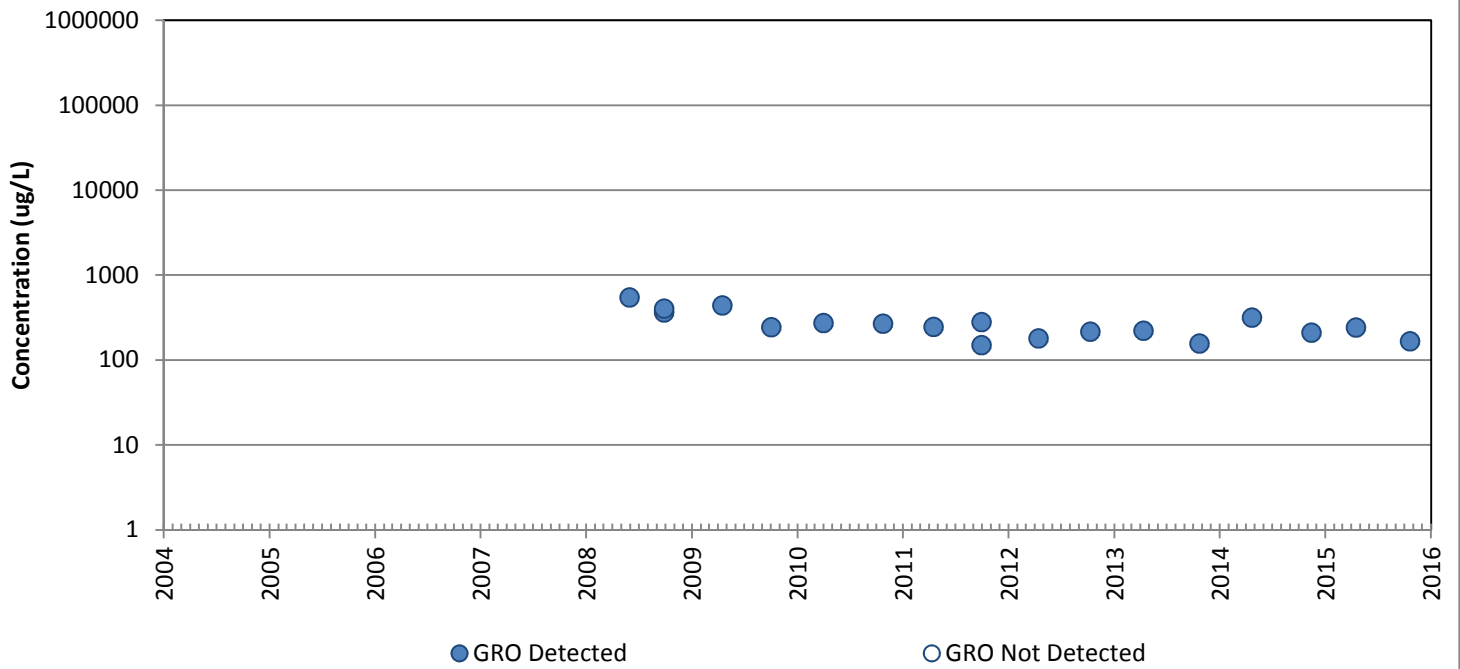


# MW-67

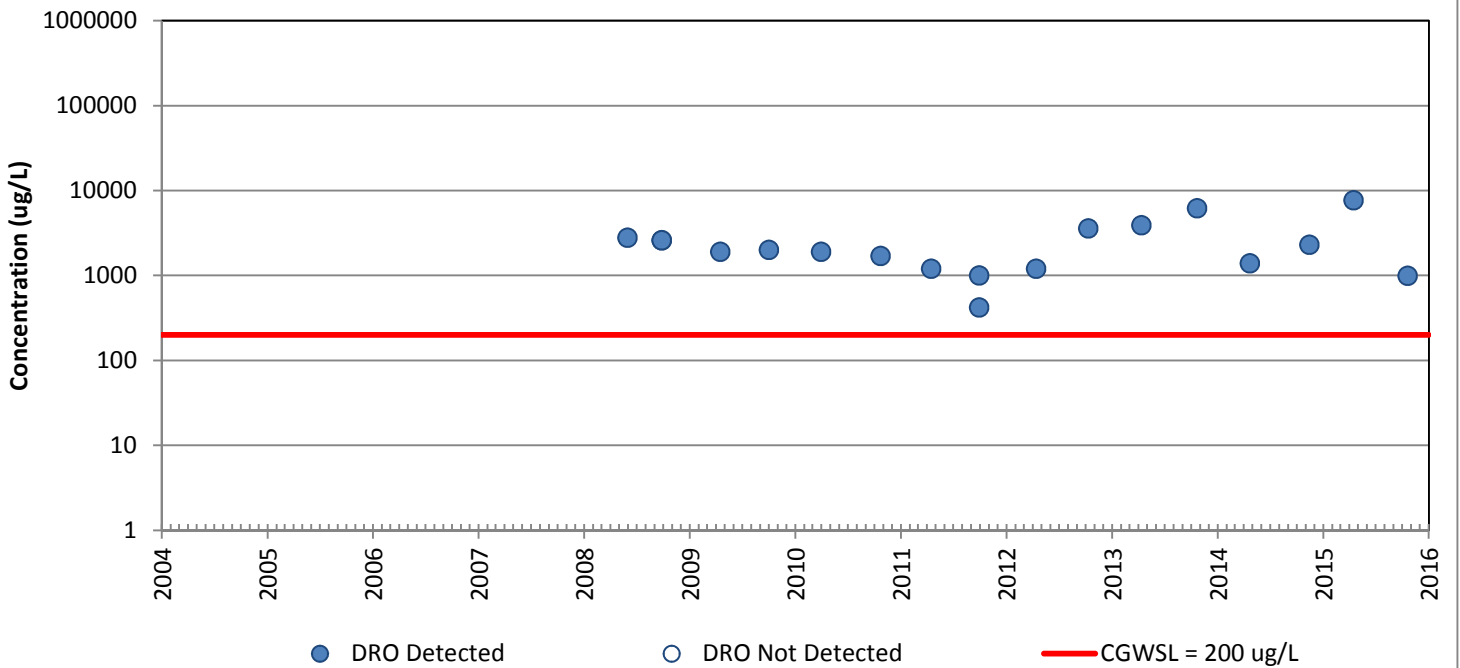


# MW-90

## GRO

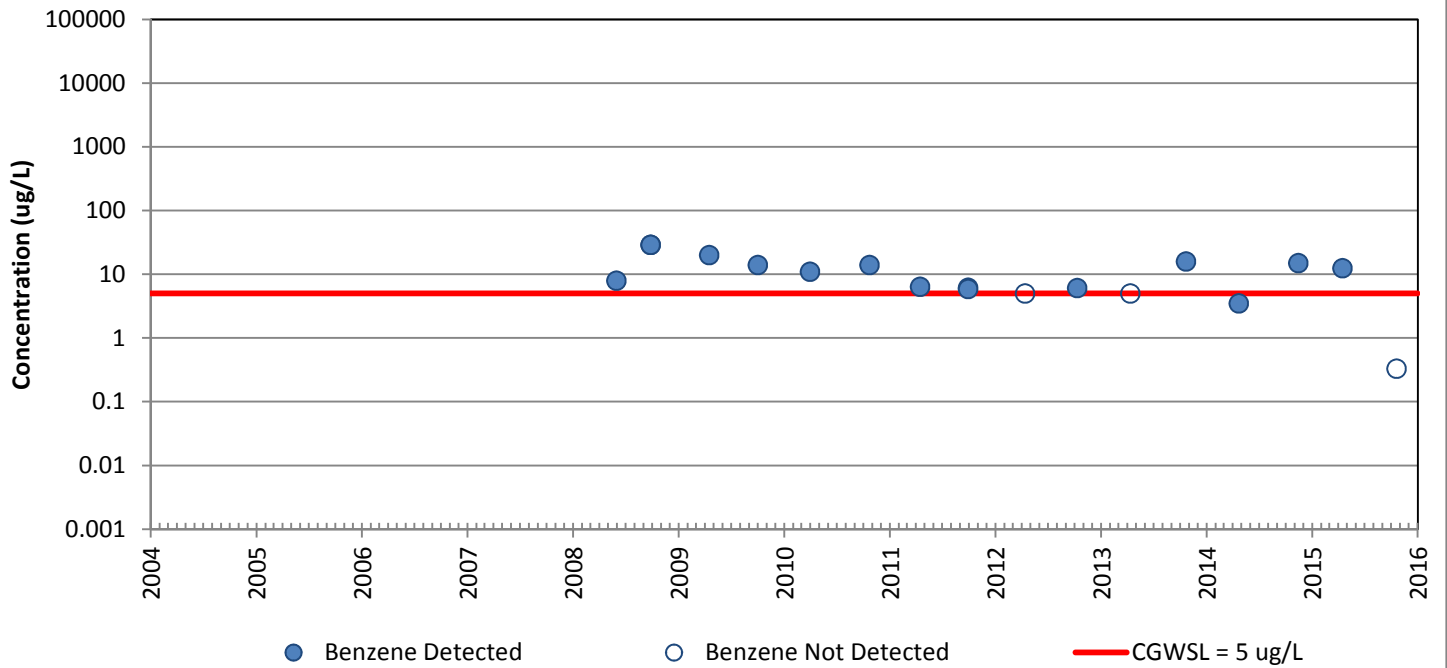


## DRO

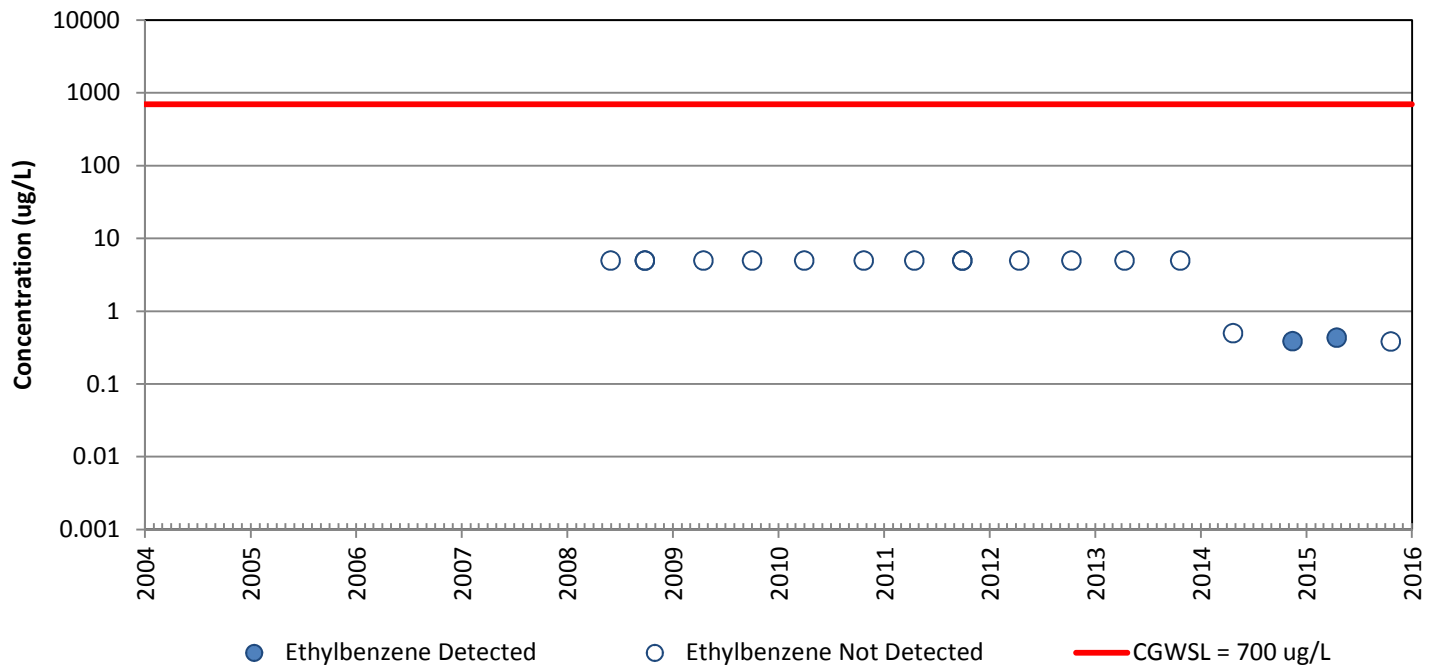


# MW-90

## Benzene

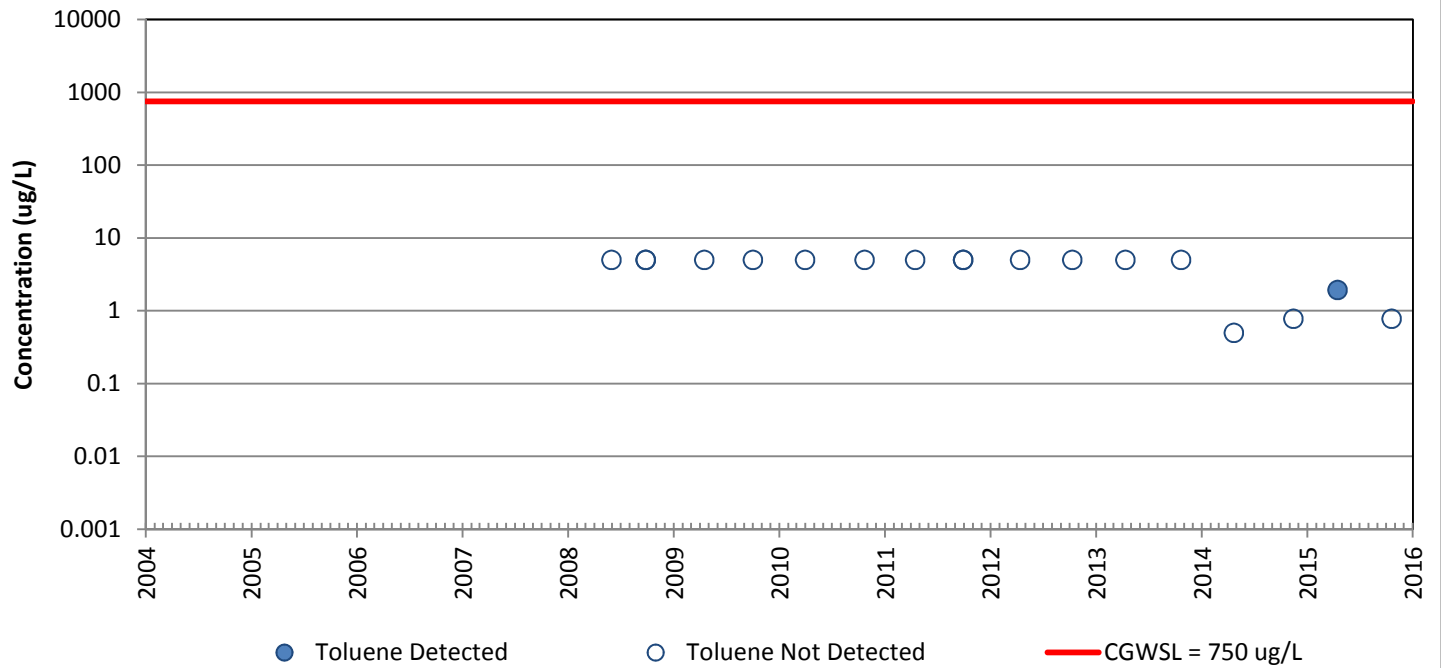


## Ethylbenzene

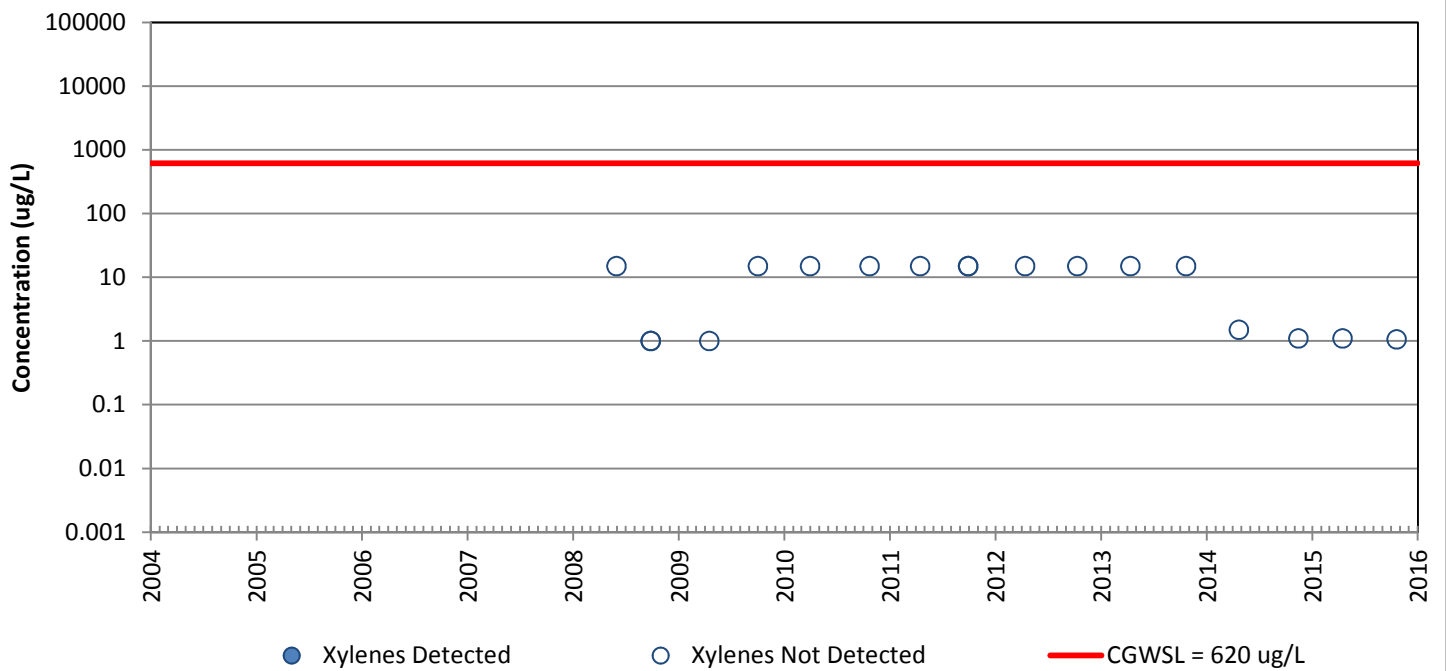


# MW-90

## Toluene

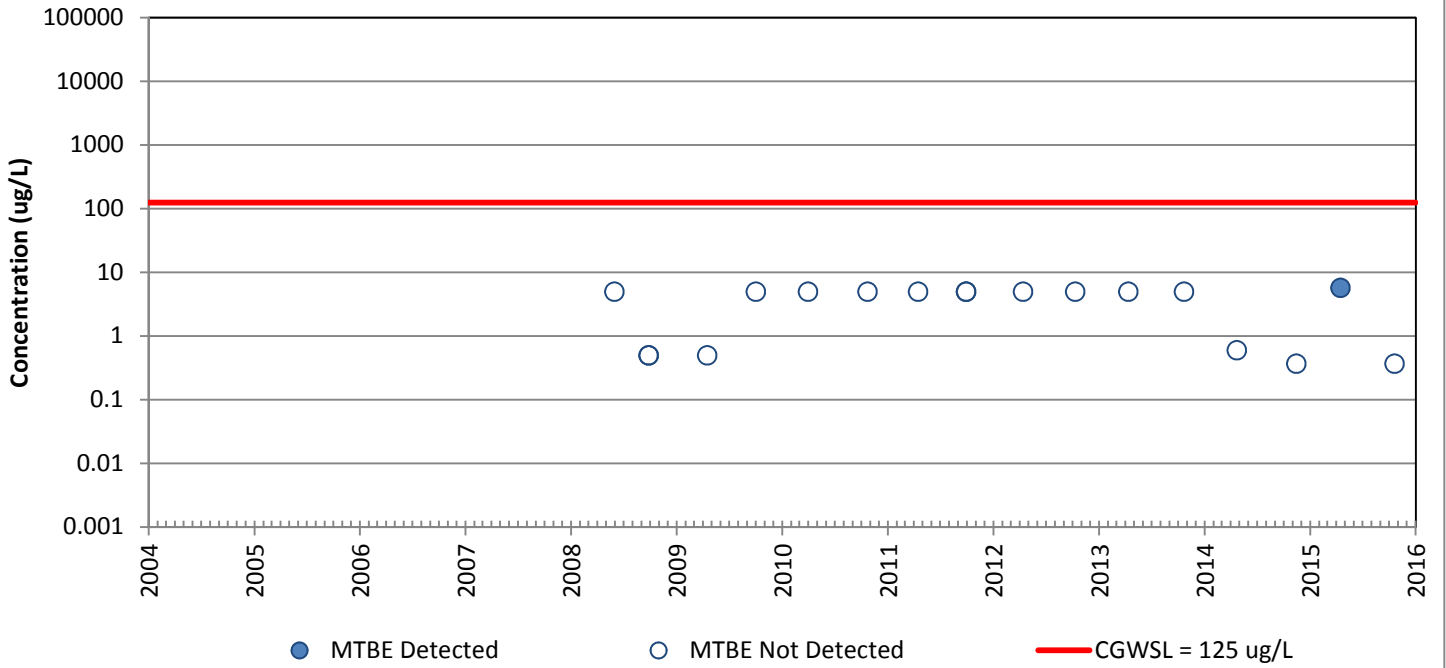


## Xylenes

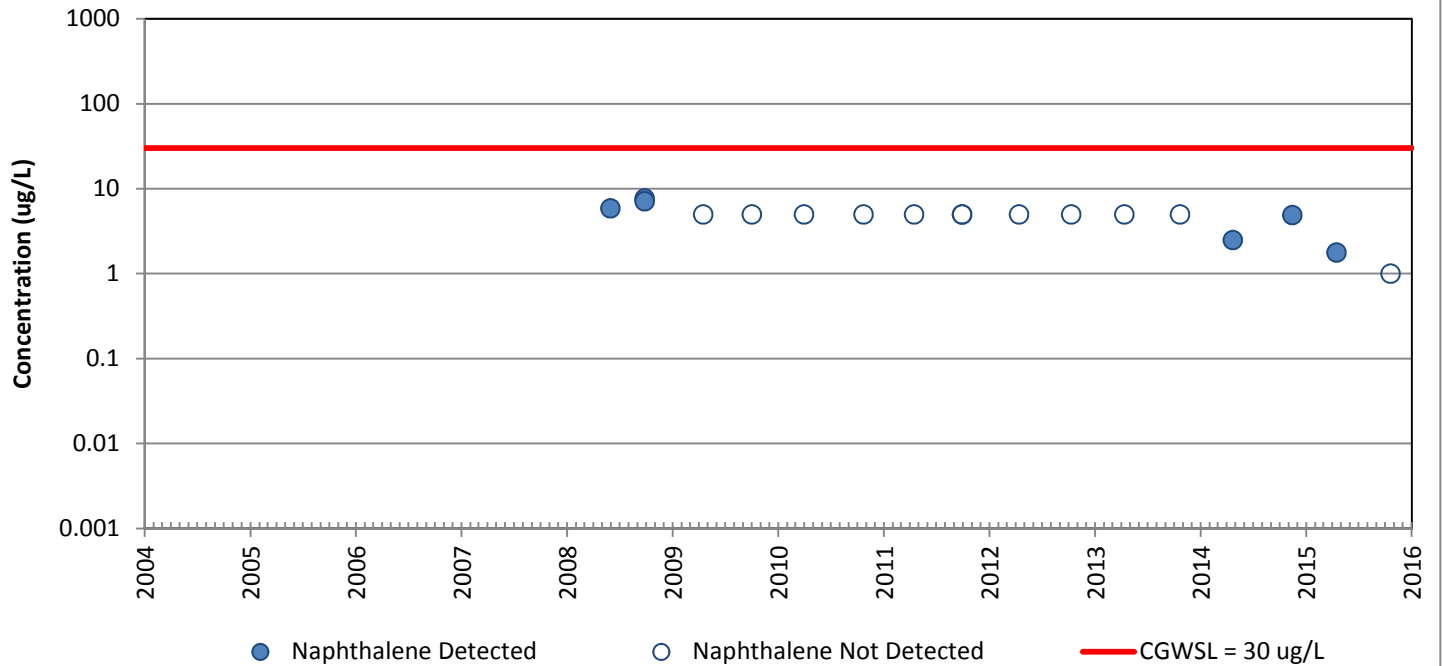


# MW-90

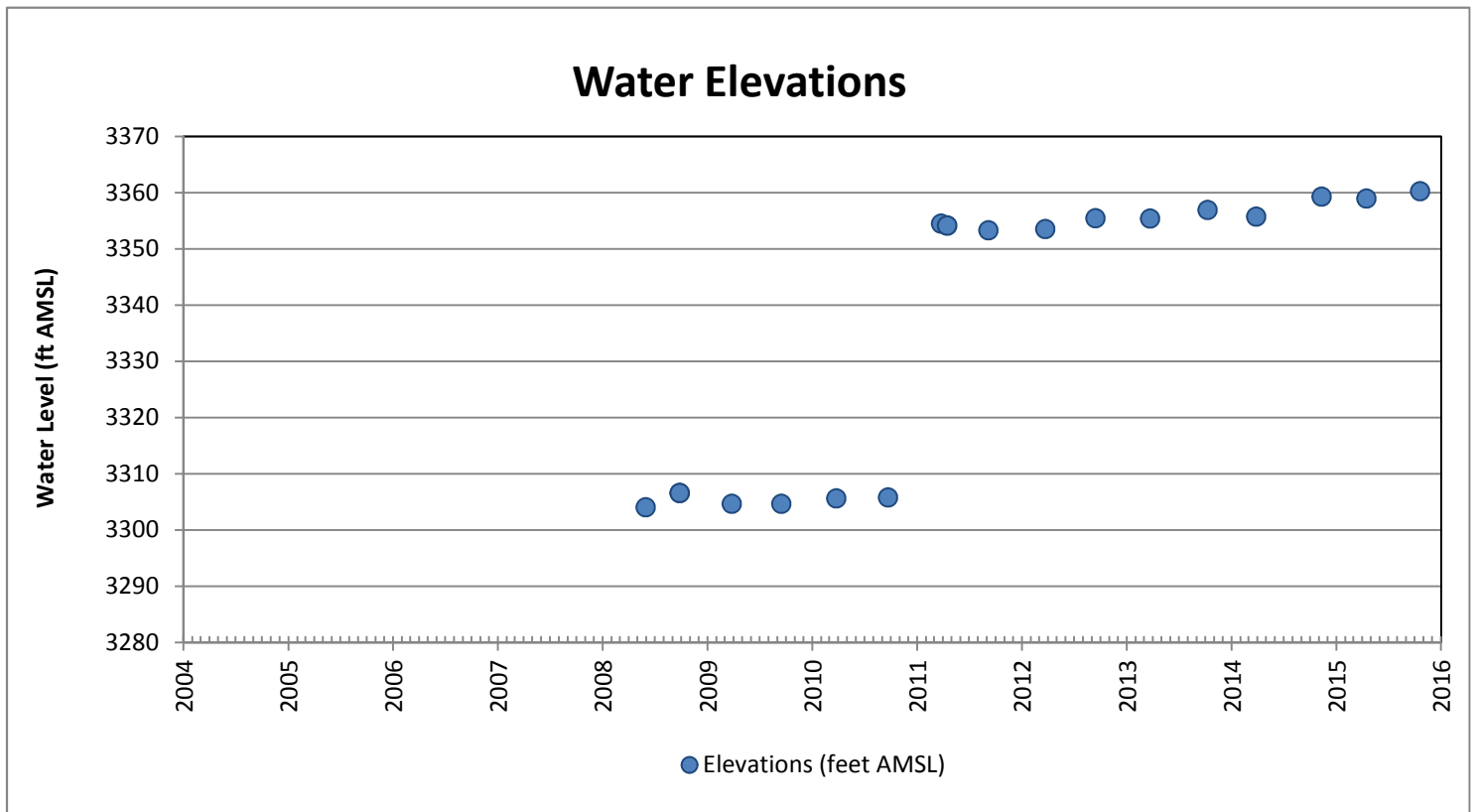
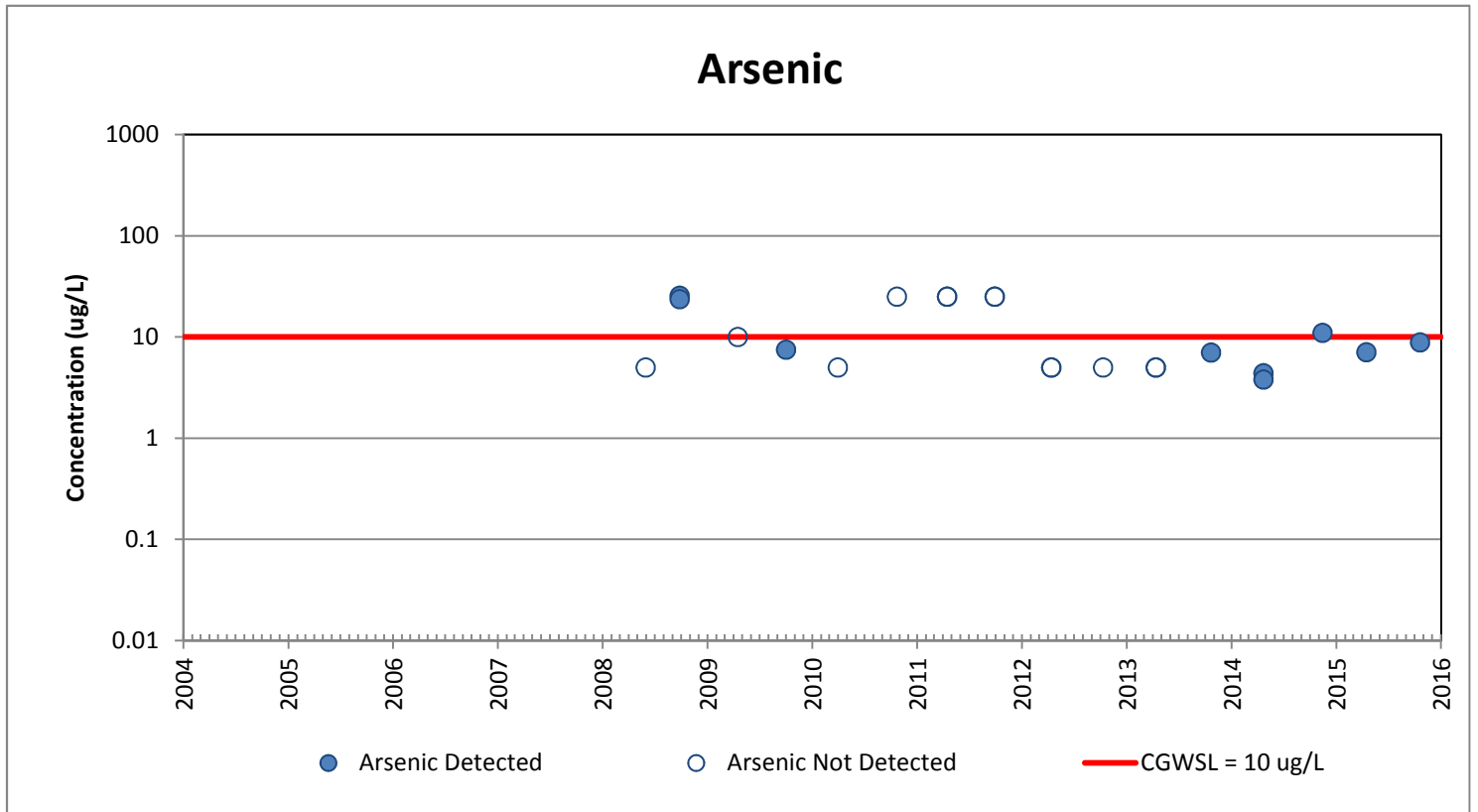
## MTBE



## Naphthalene

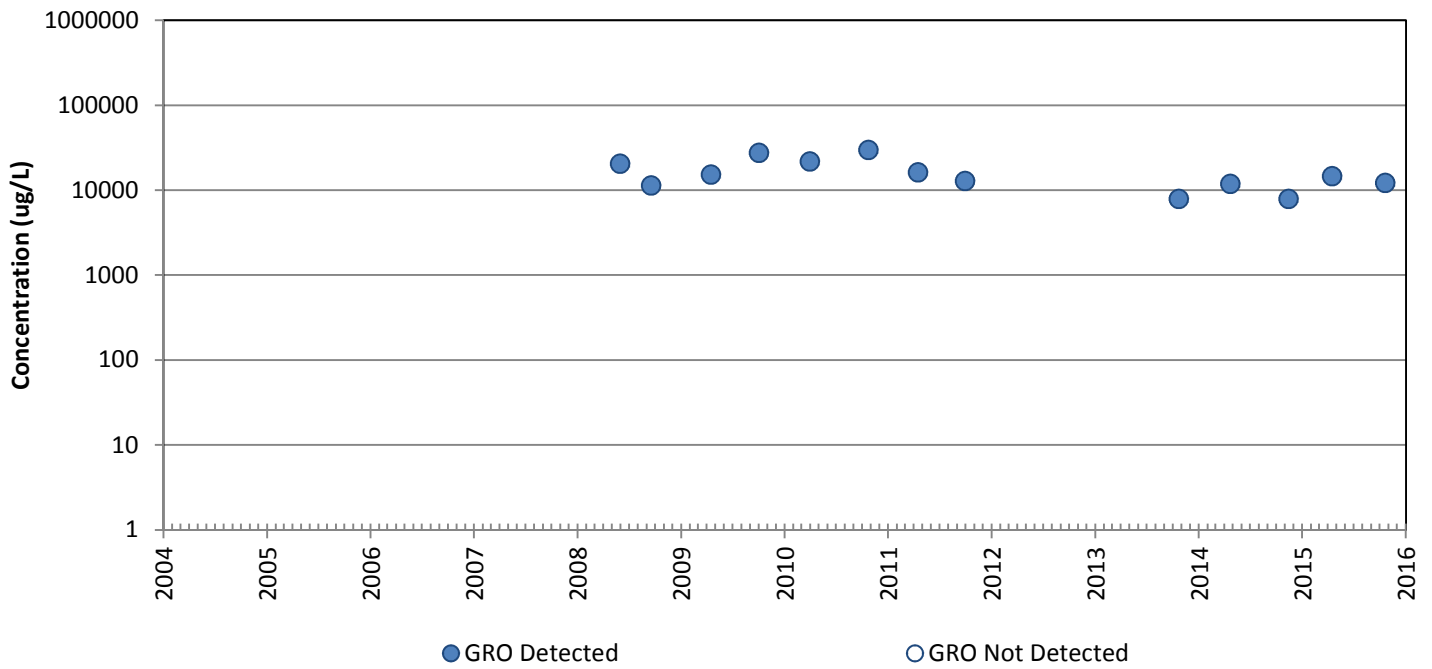


# MW-90

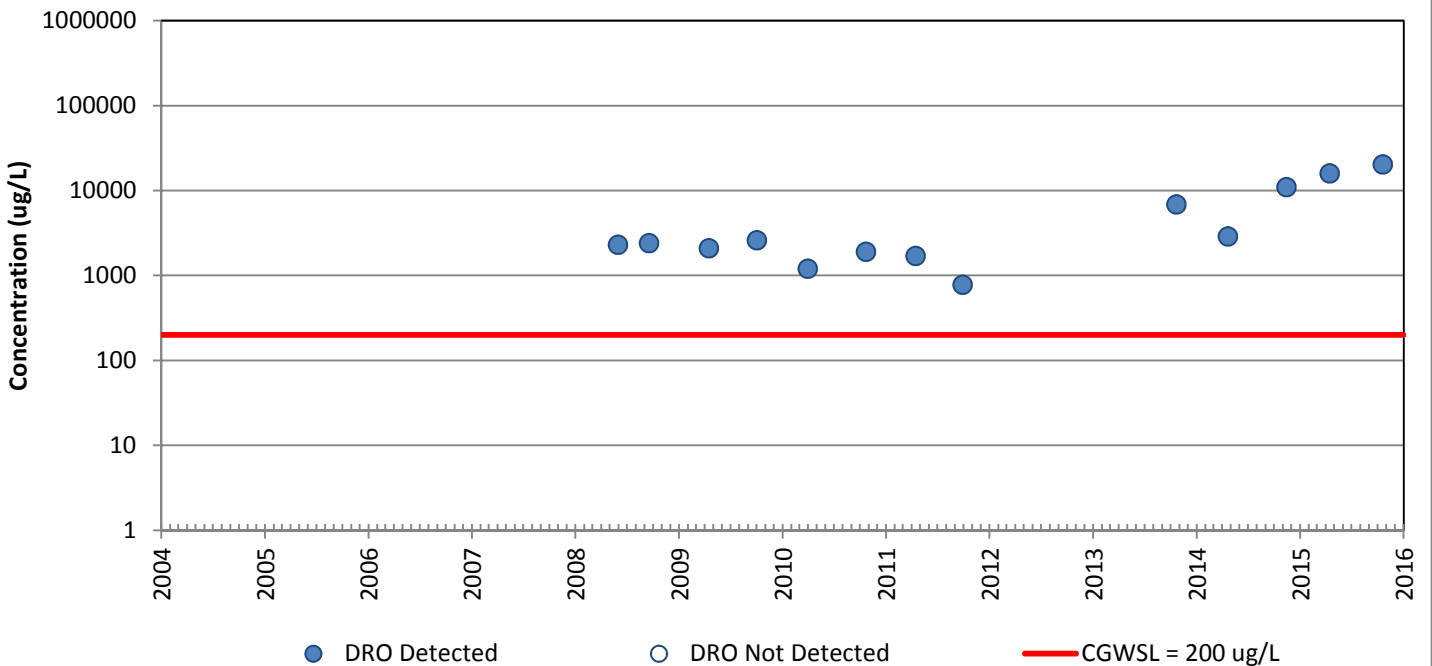


# MW-91

## GRO

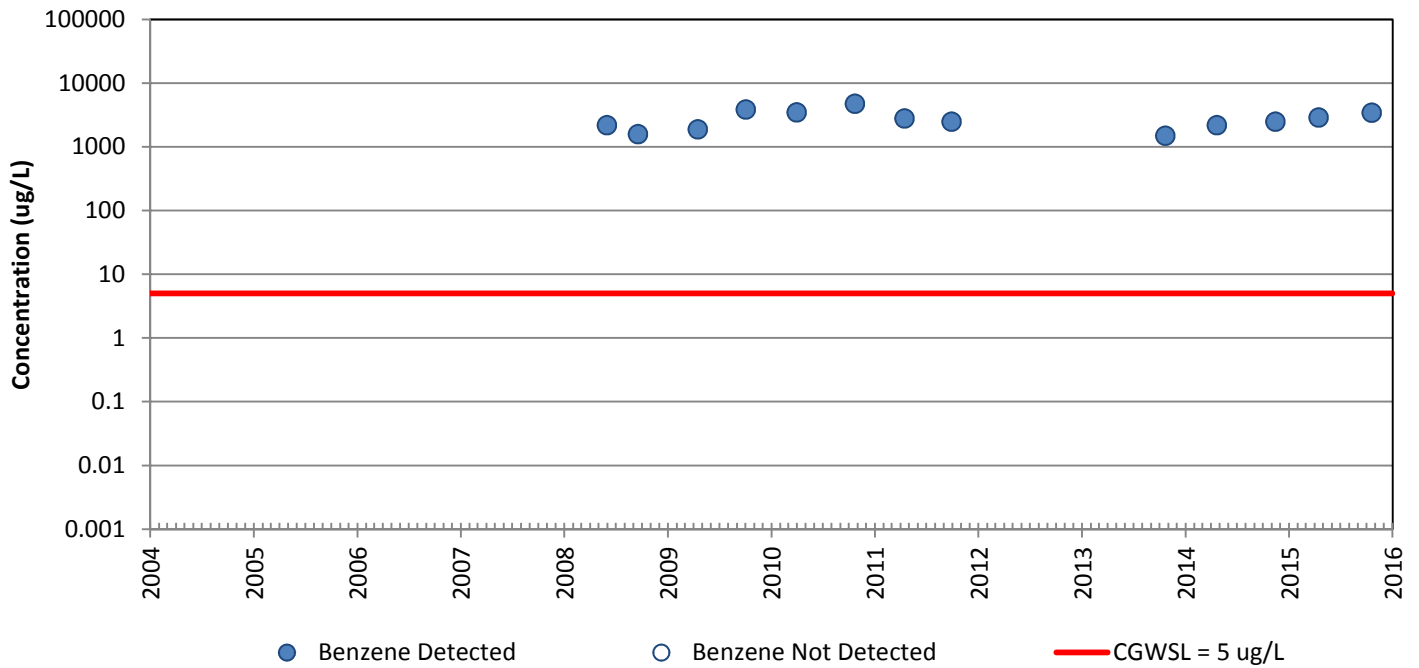


## DRO

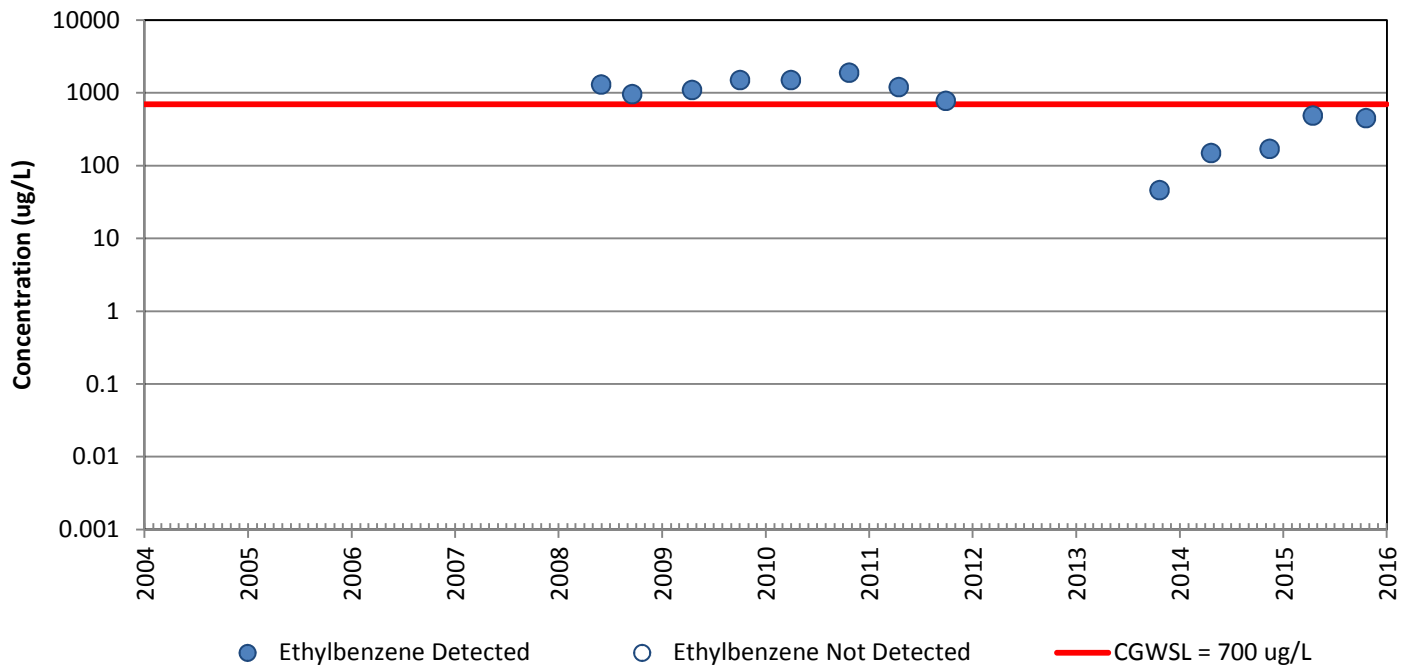


# MW-91

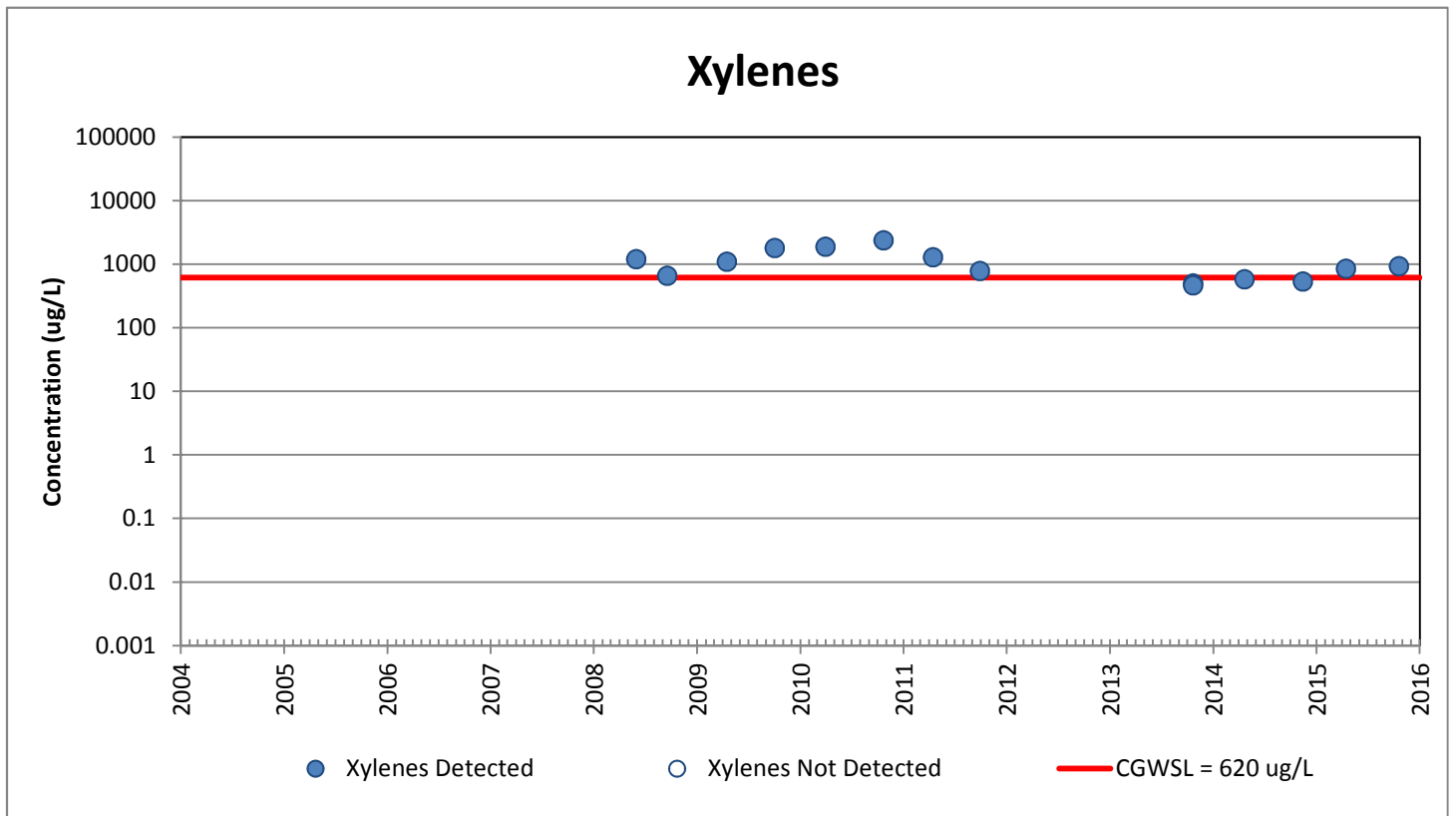
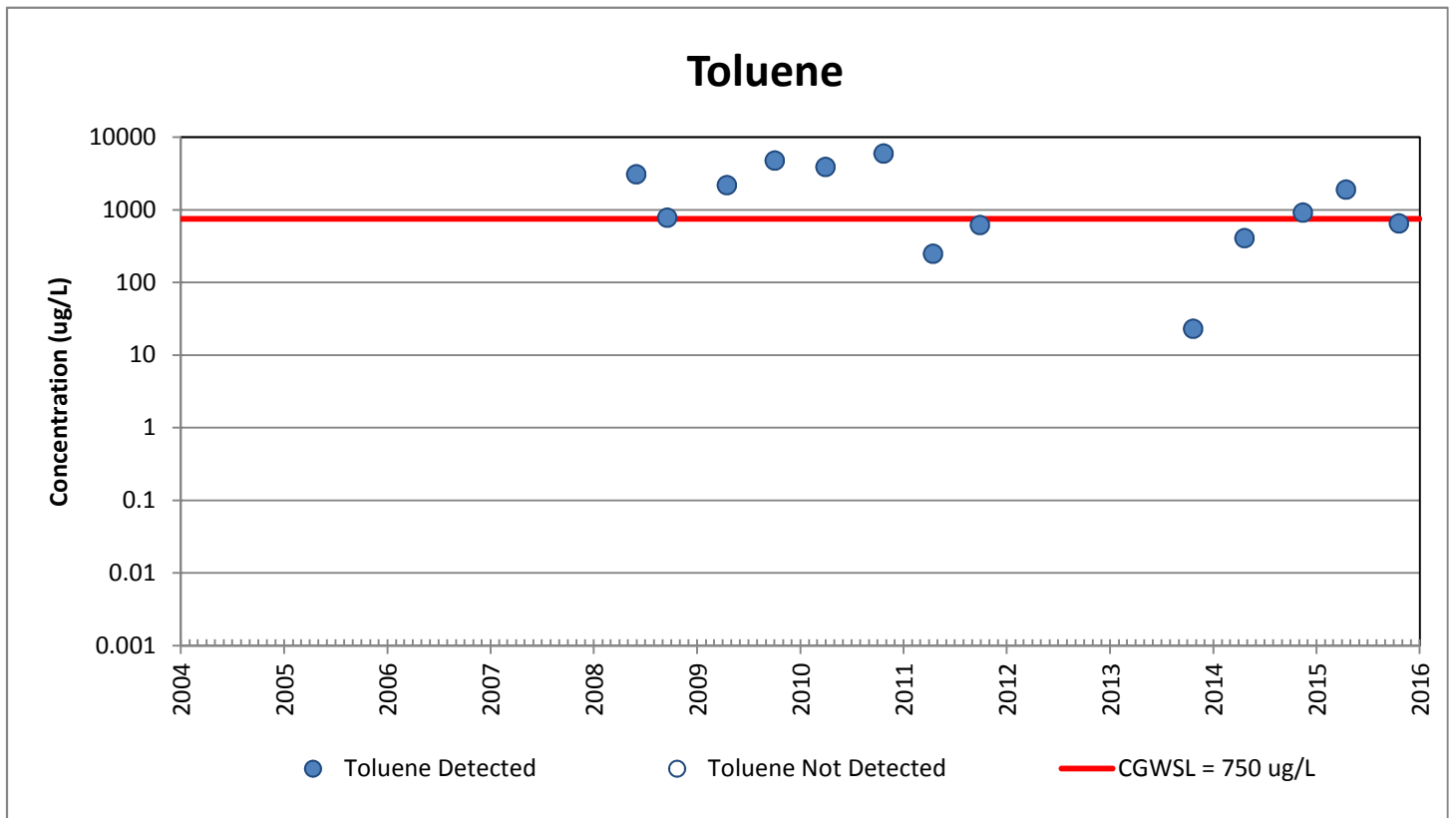
## Benzene



## Ethylbenzene

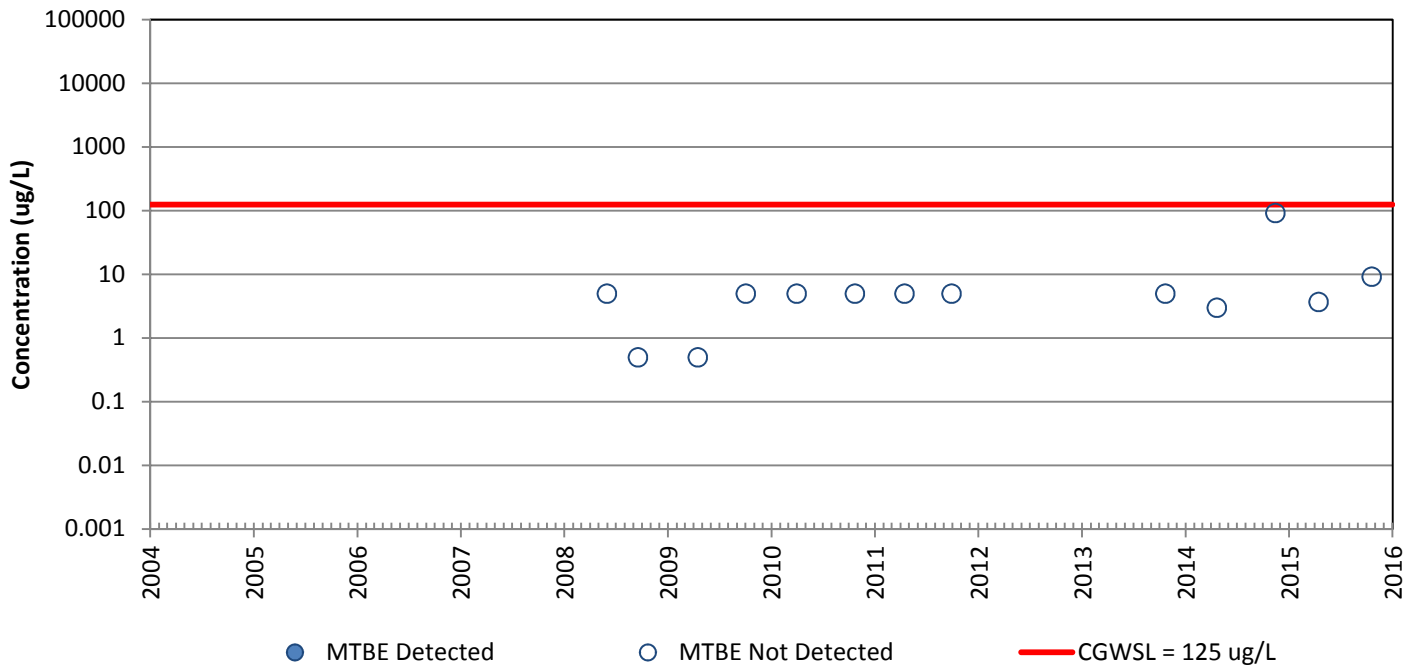


# MW-91

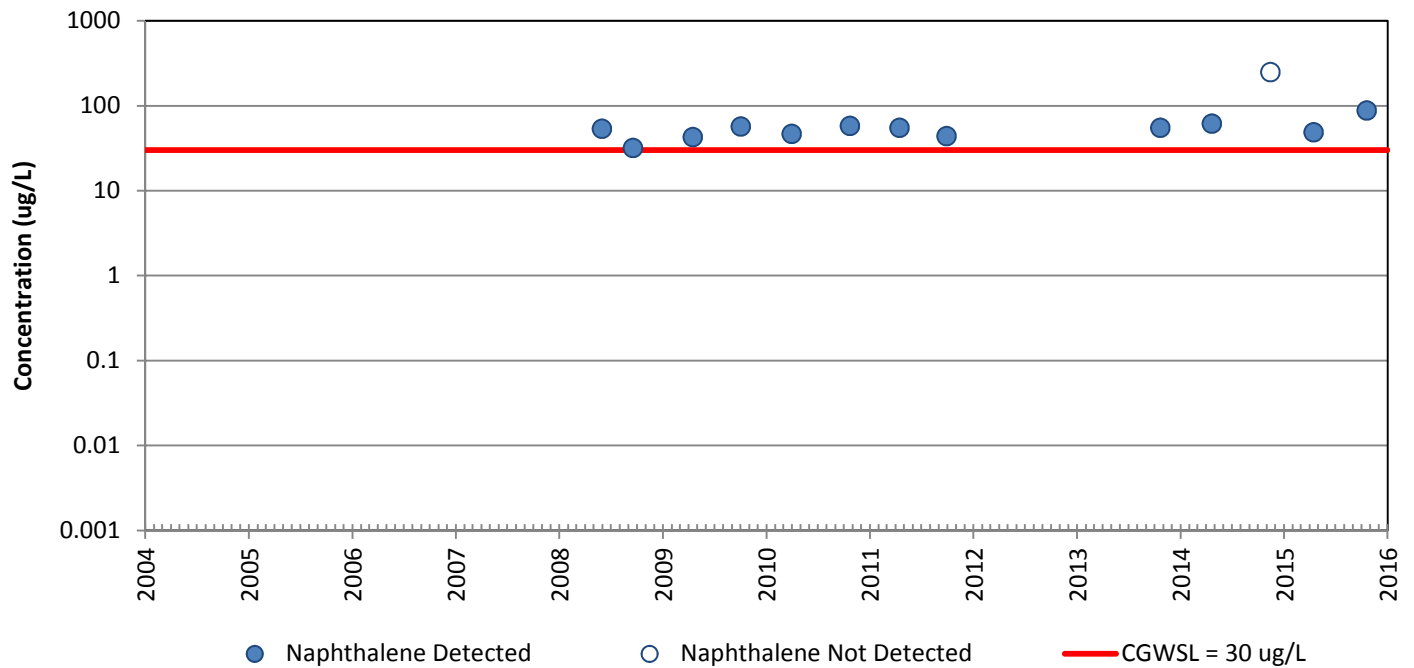


# MW-91

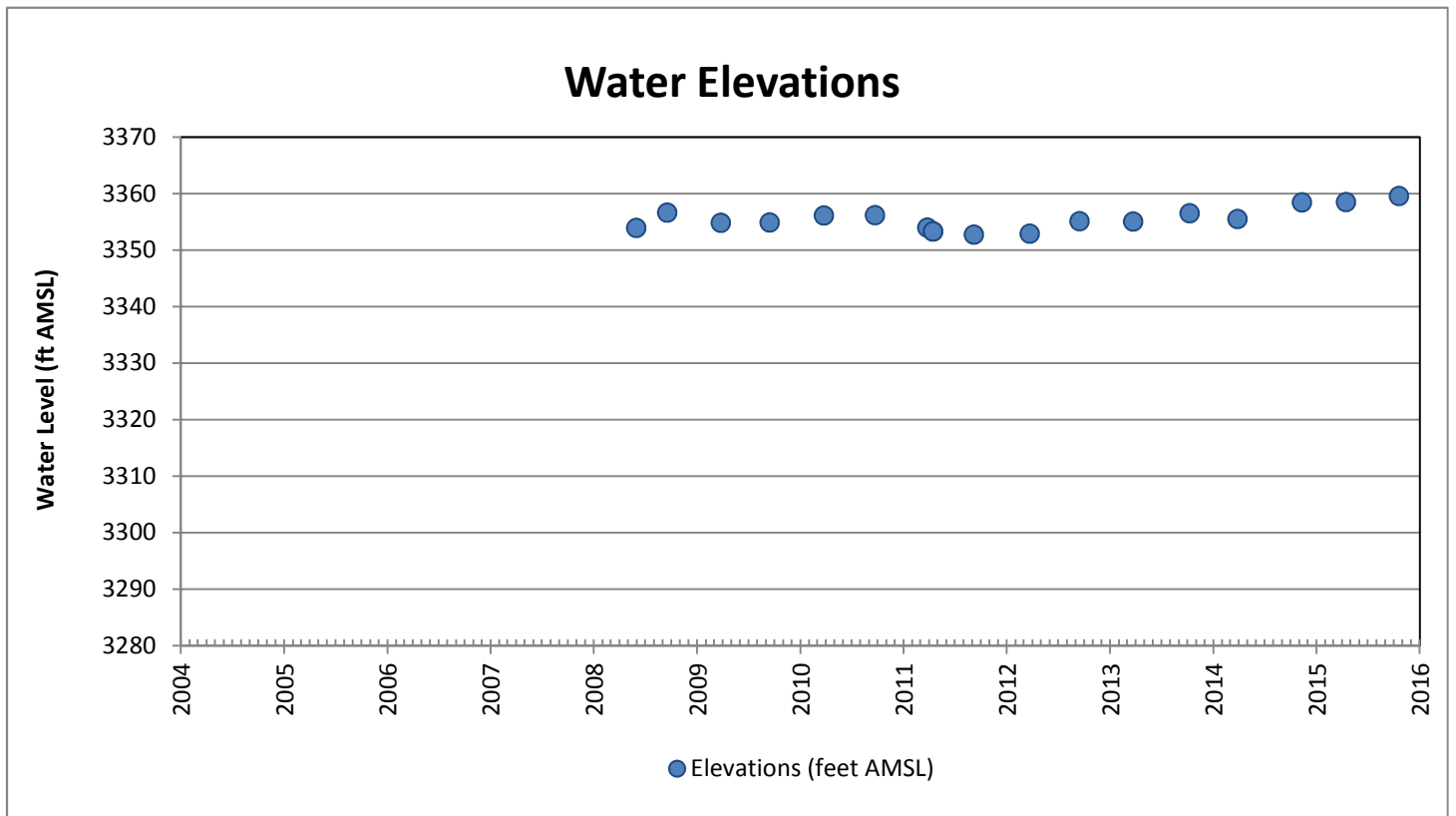
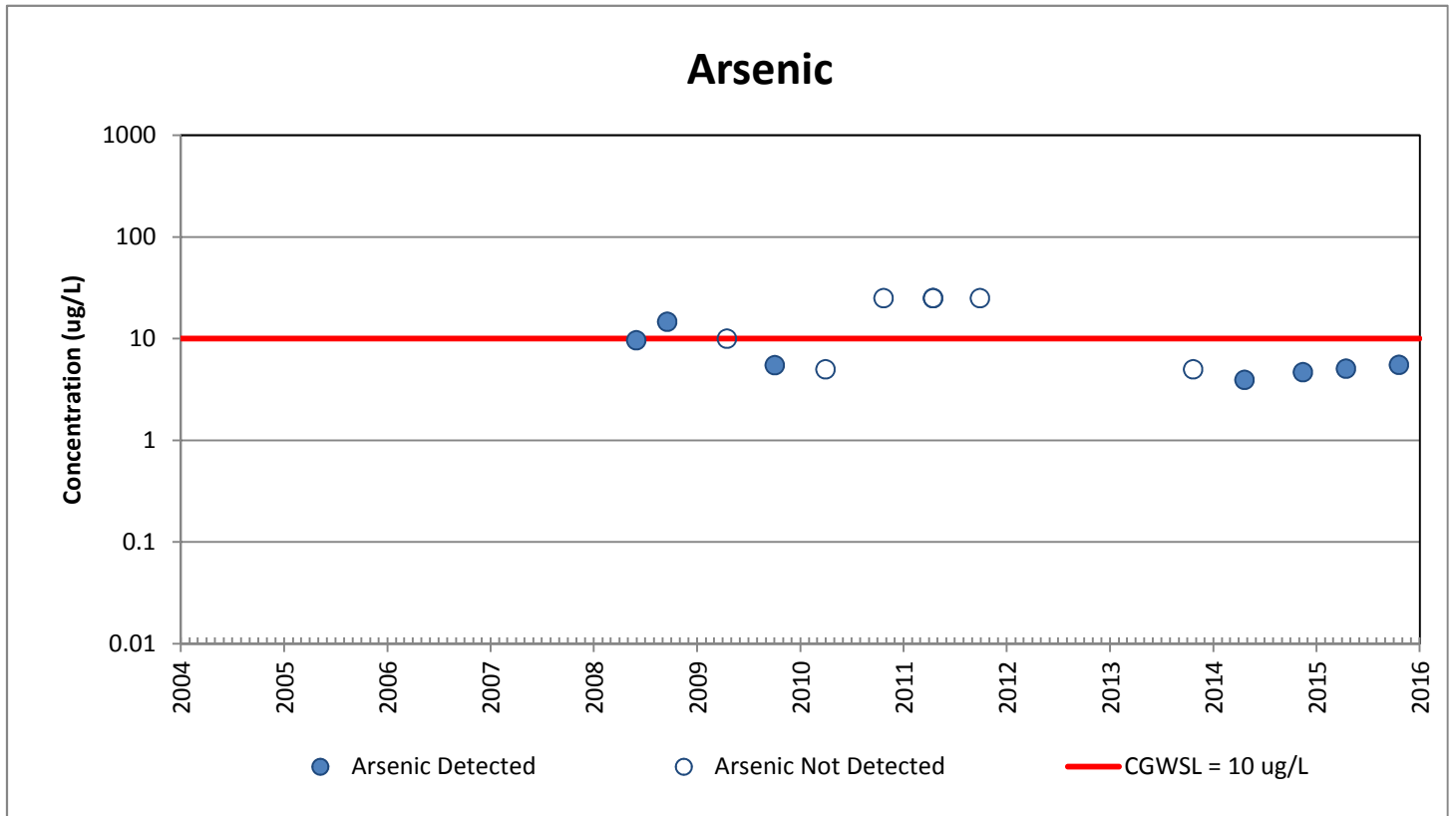
## MTBE



## Naphthalene

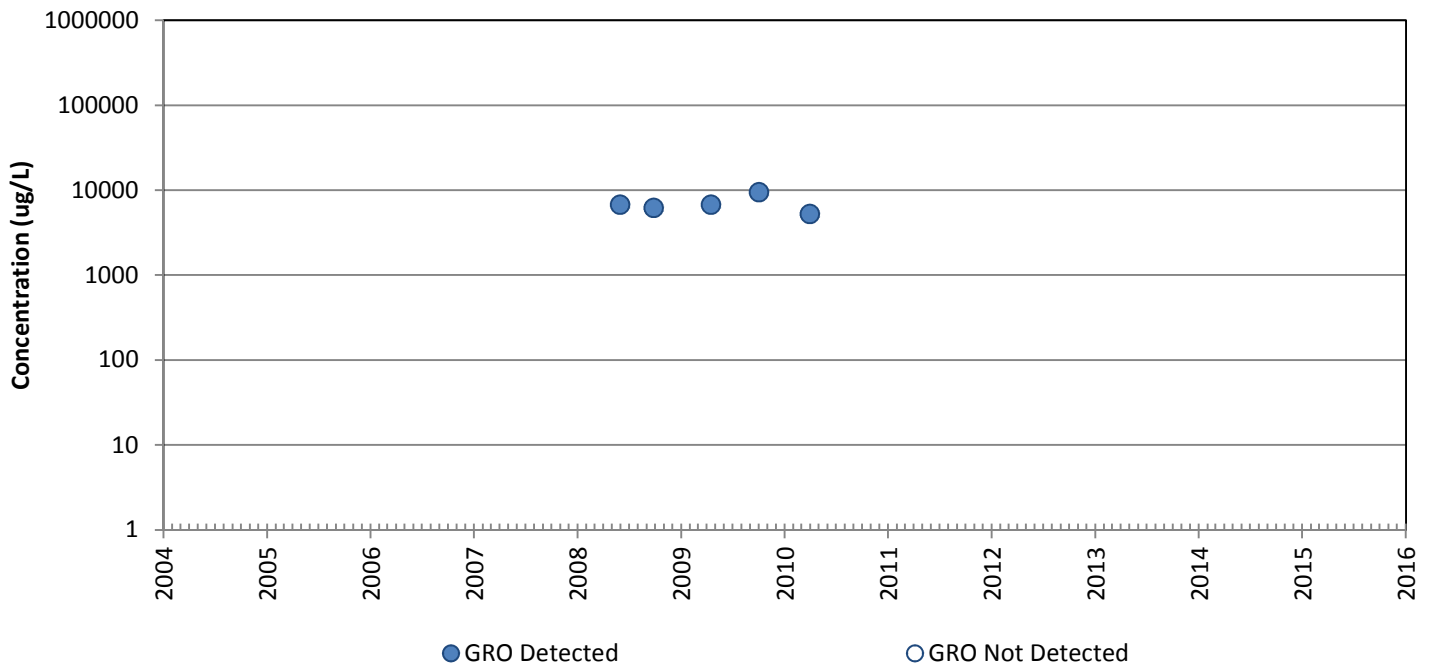


# MW-91

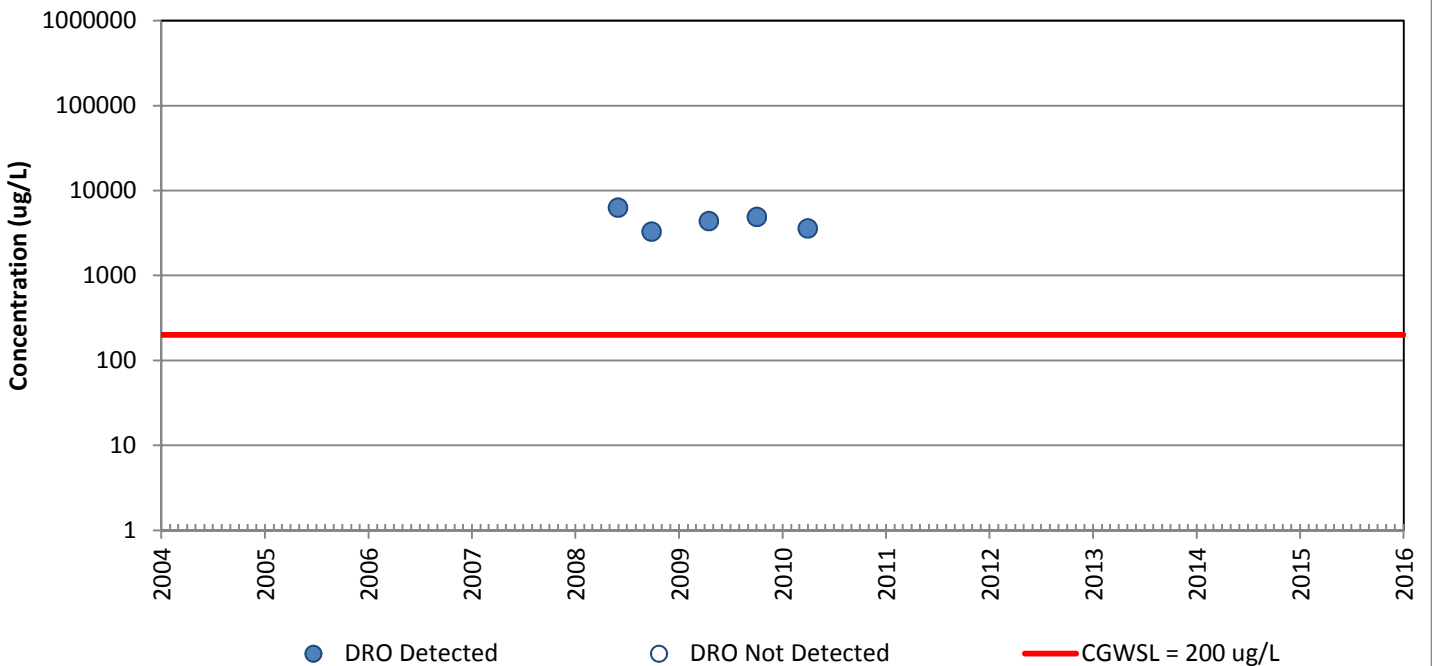


# MW-92

## GRO

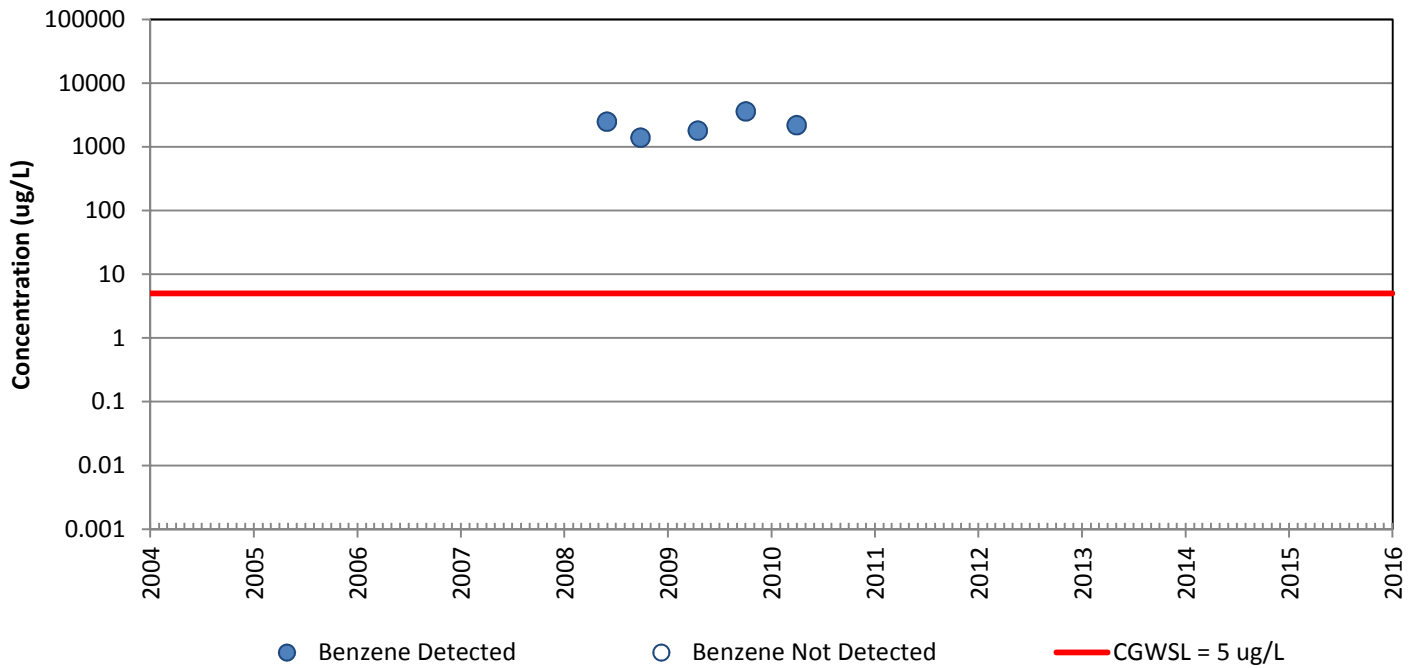


## DRO

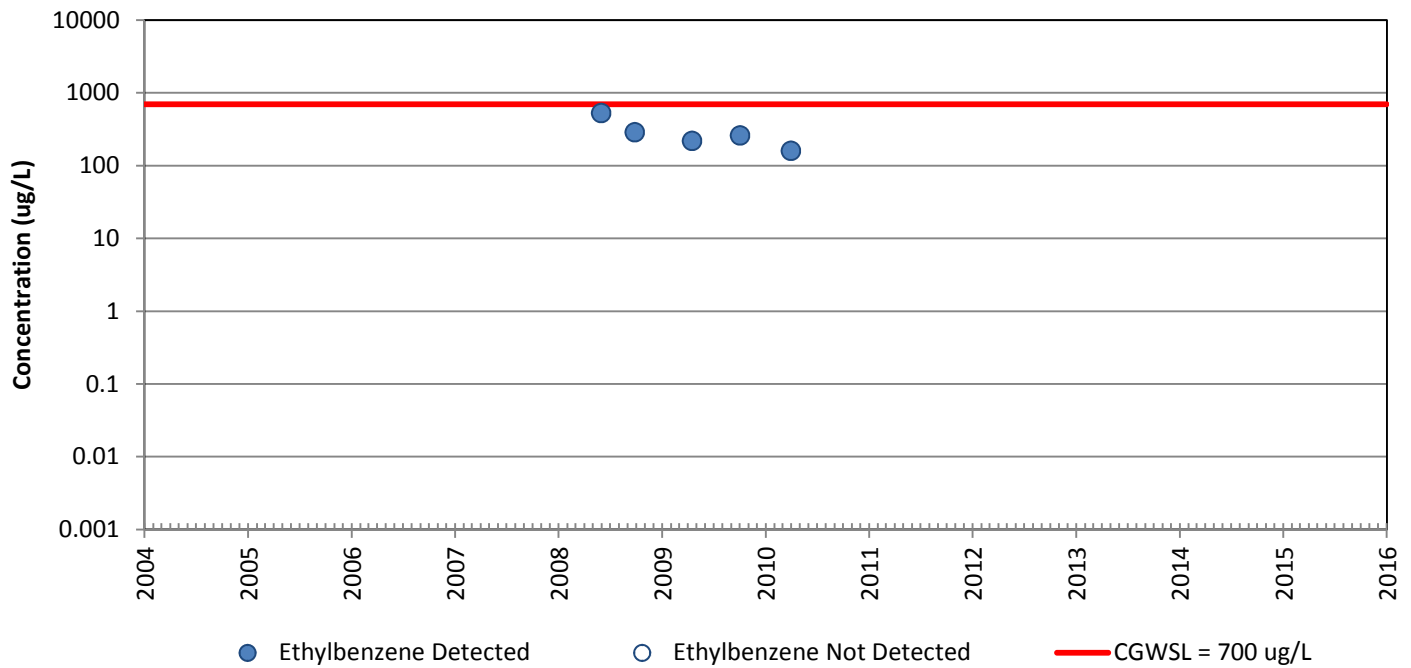


# MW-92

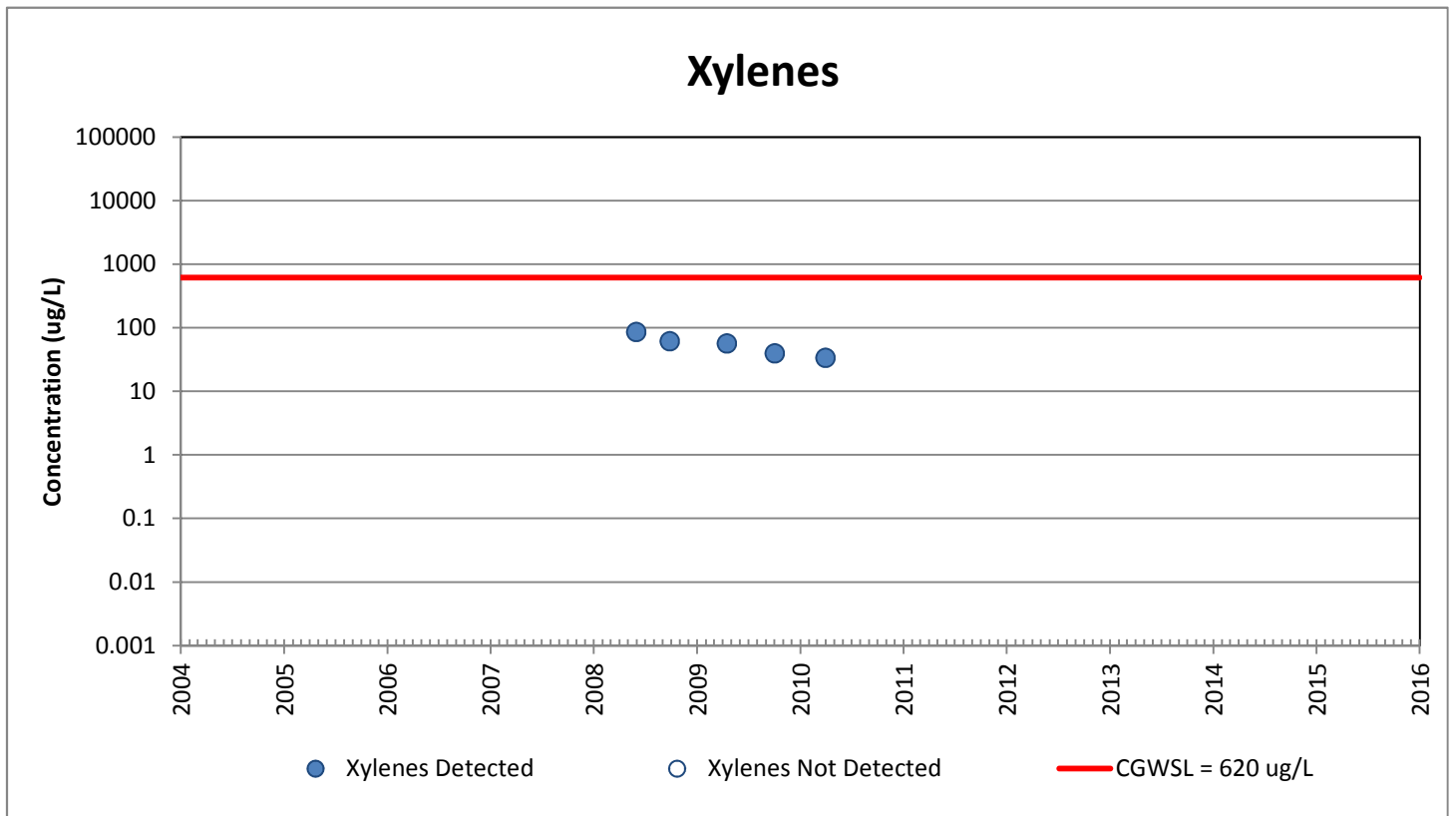
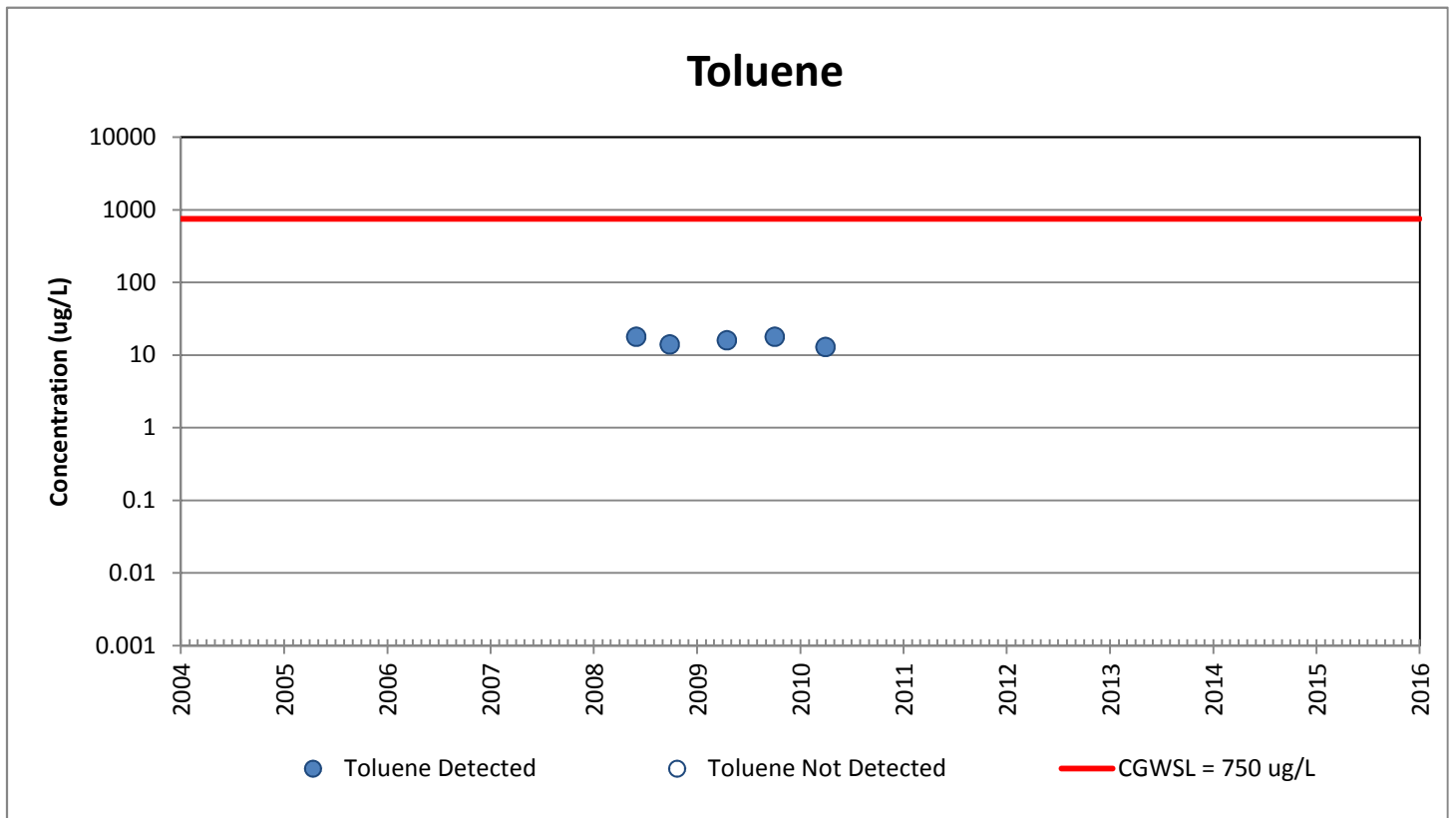
## Benzene



## Ethylbenzene

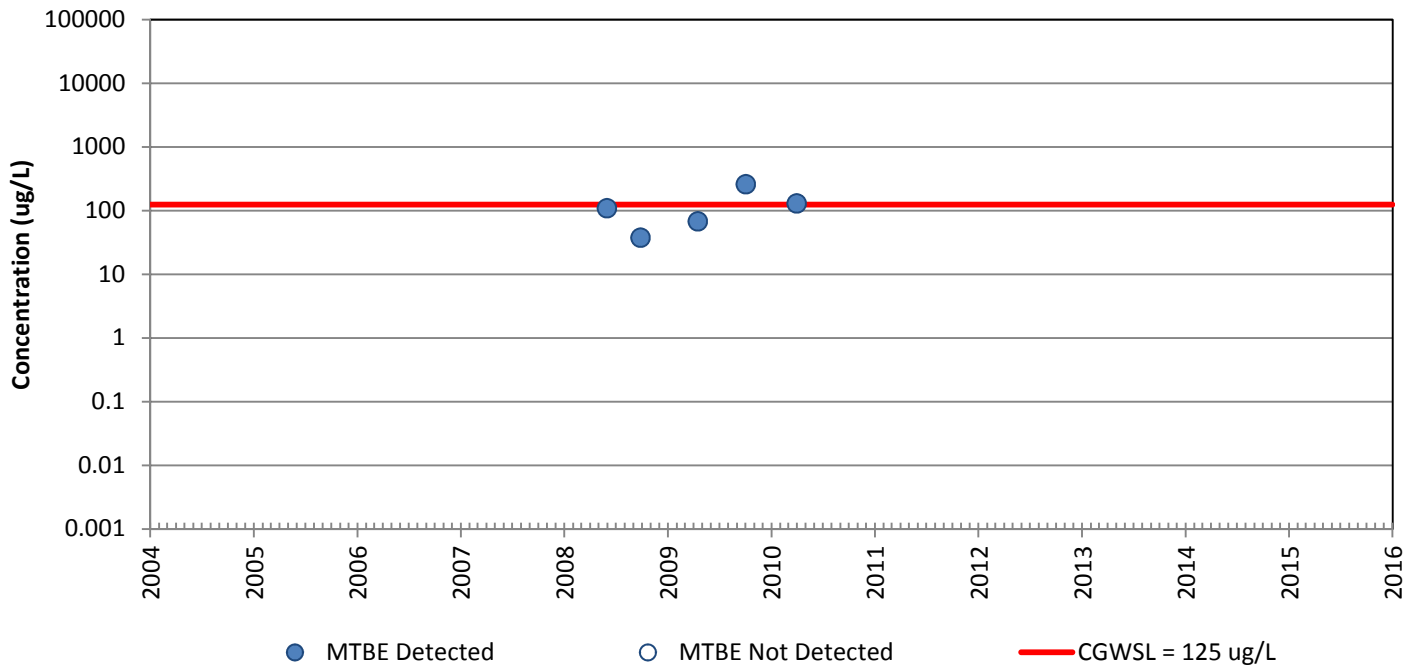


# MW-92

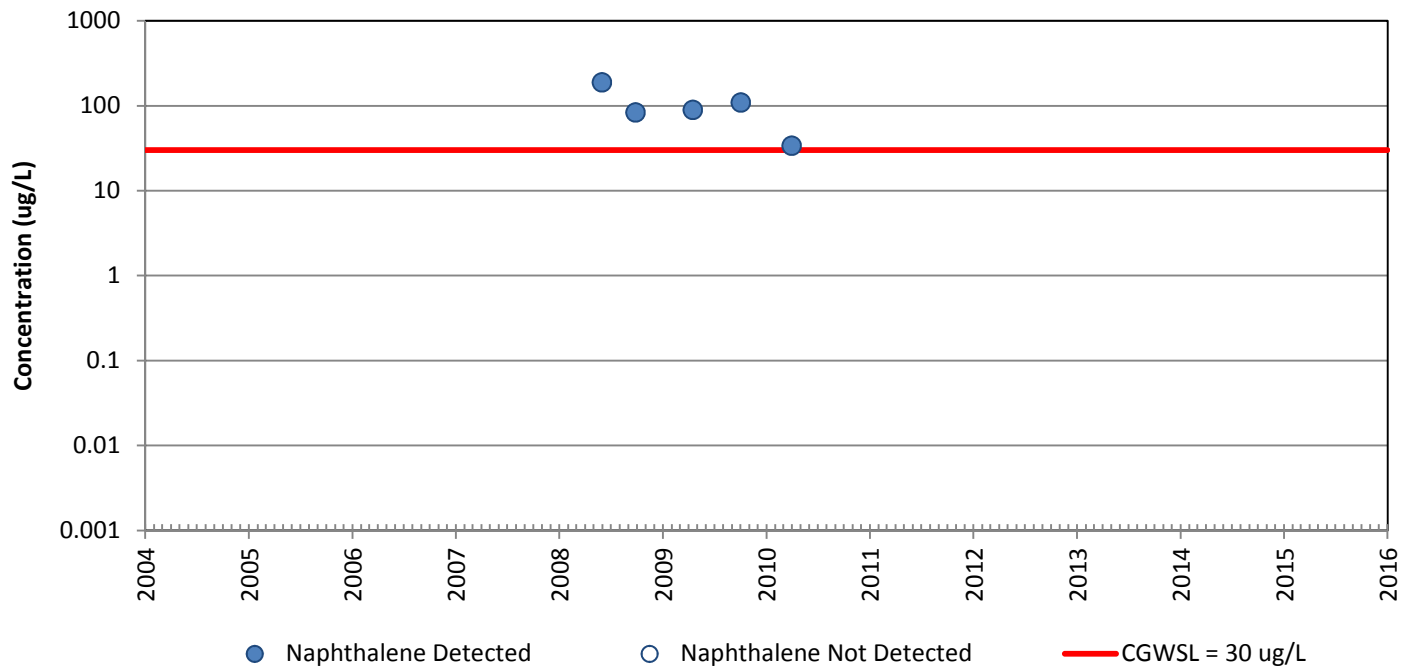


# MW-92

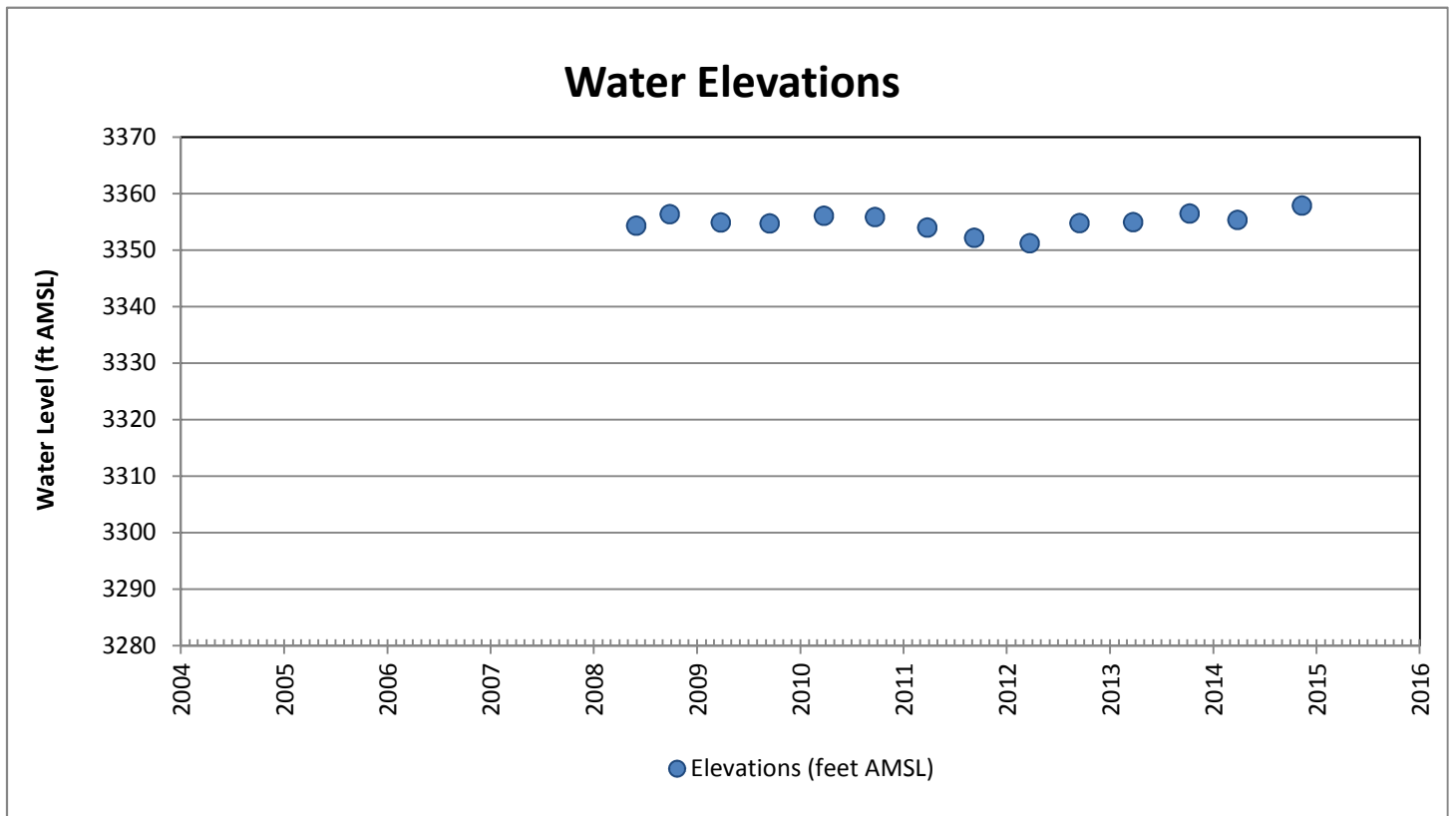
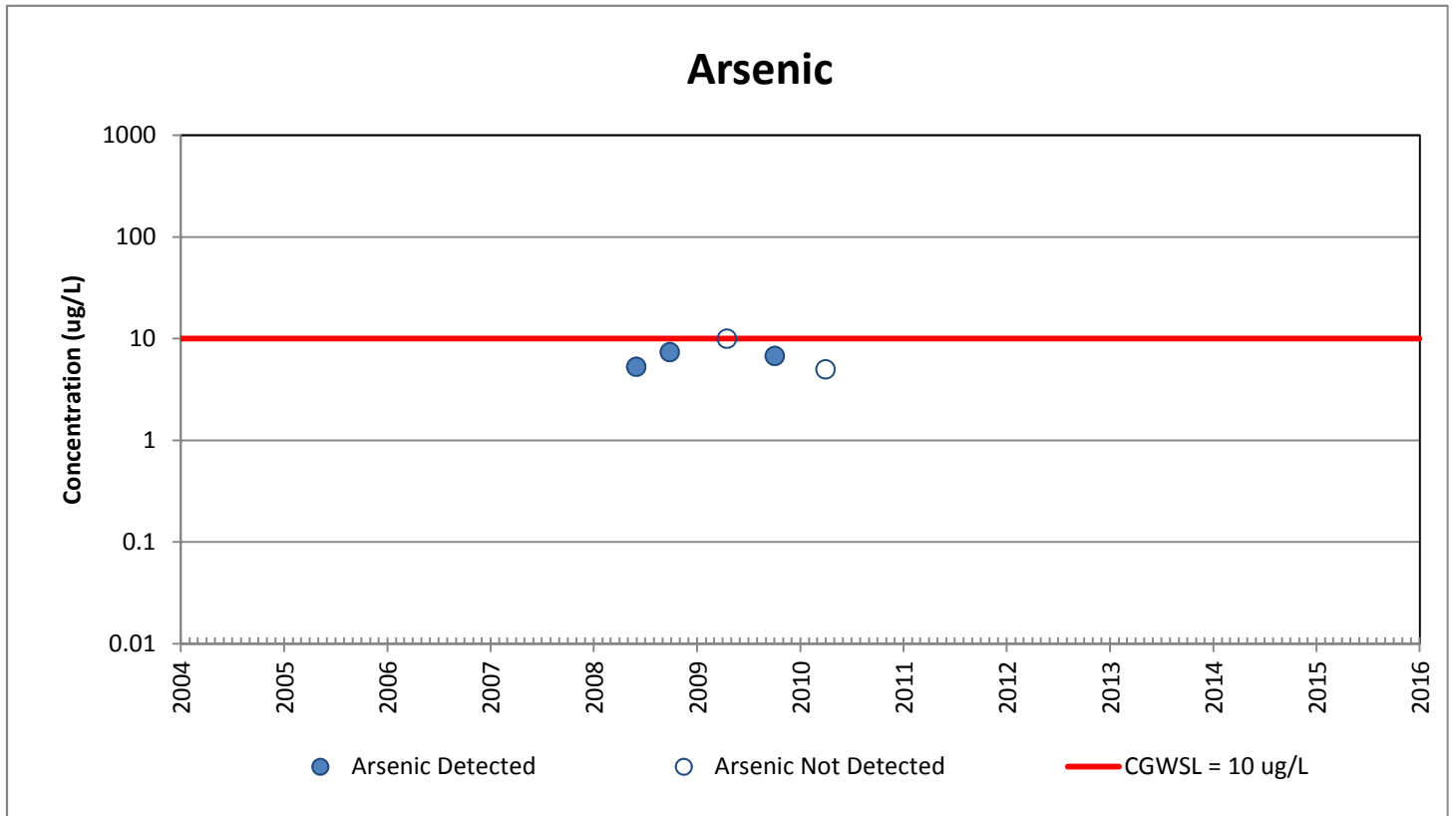
## MTBE



## Naphthalene

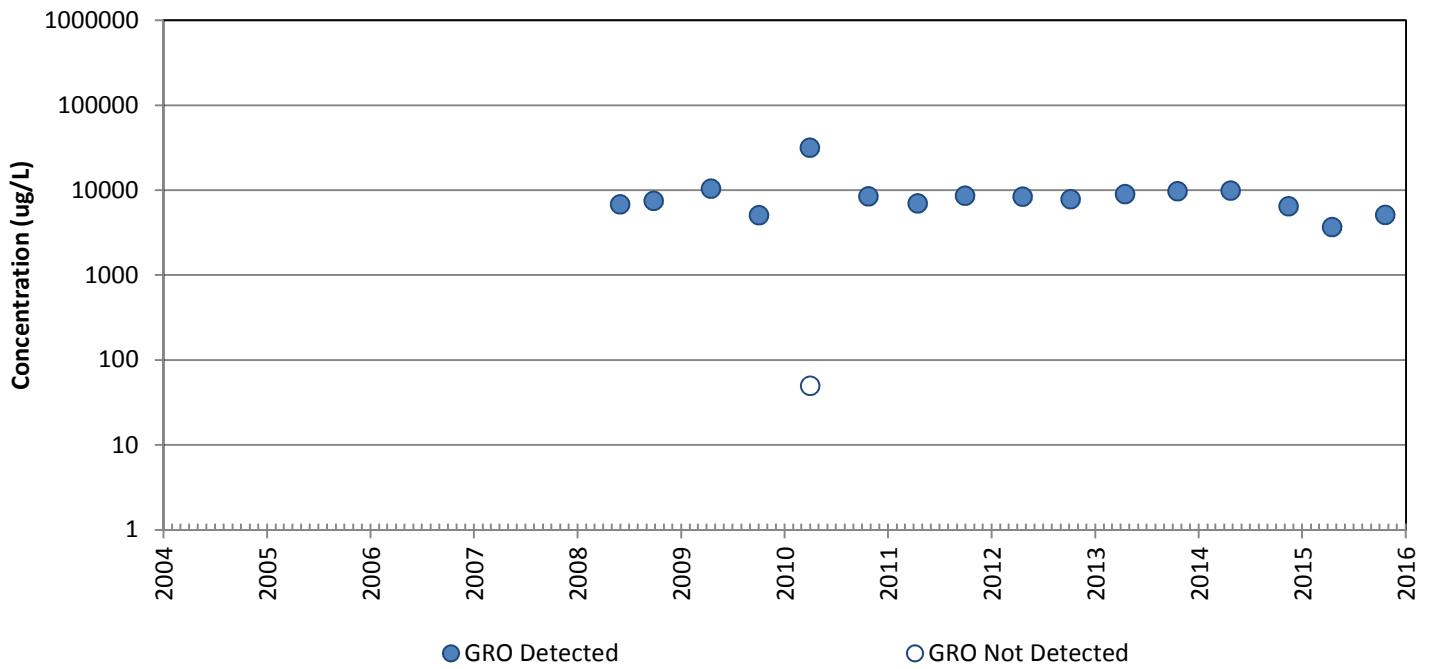


# MW-92

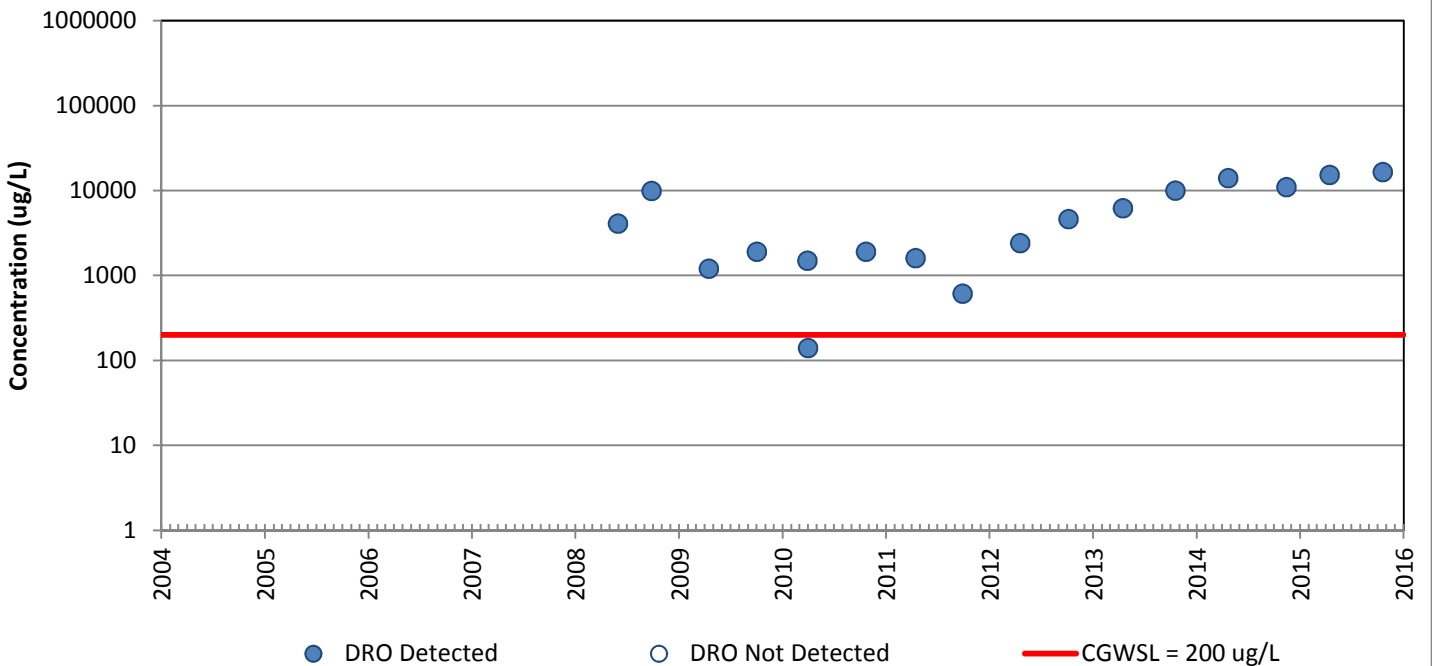


# MW-93

## GRO

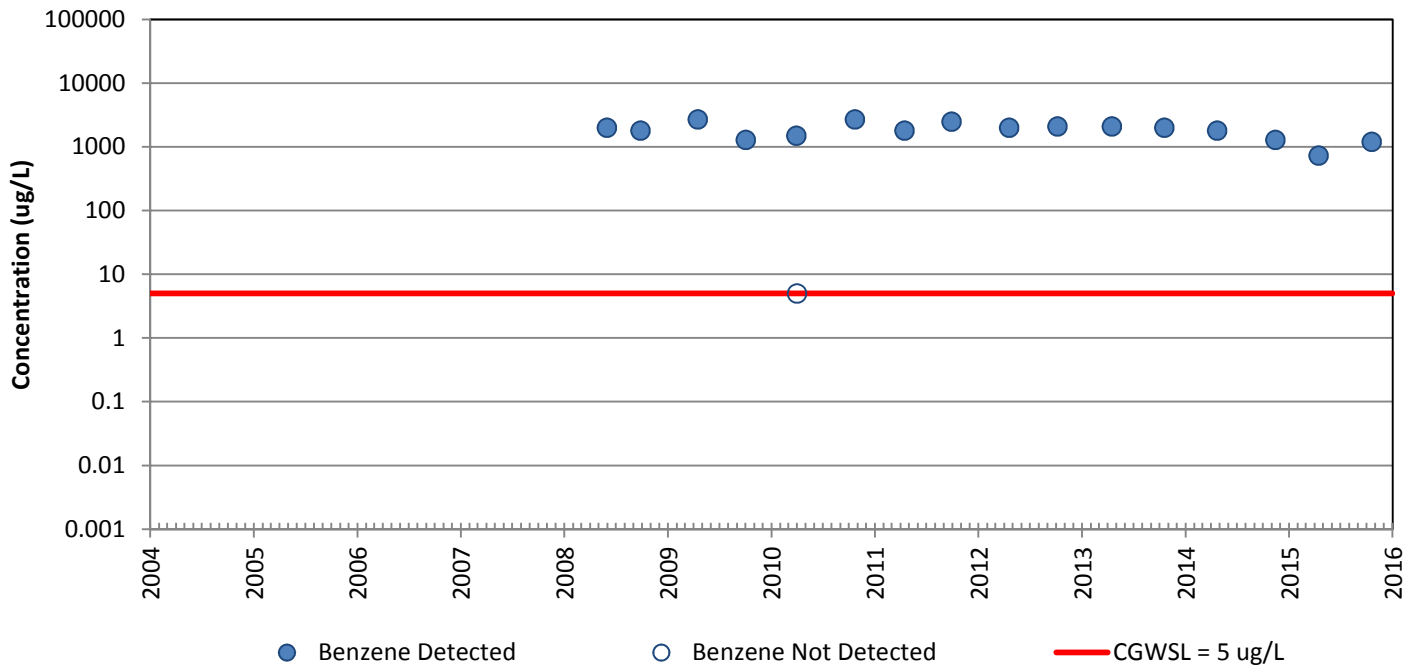


## DRO

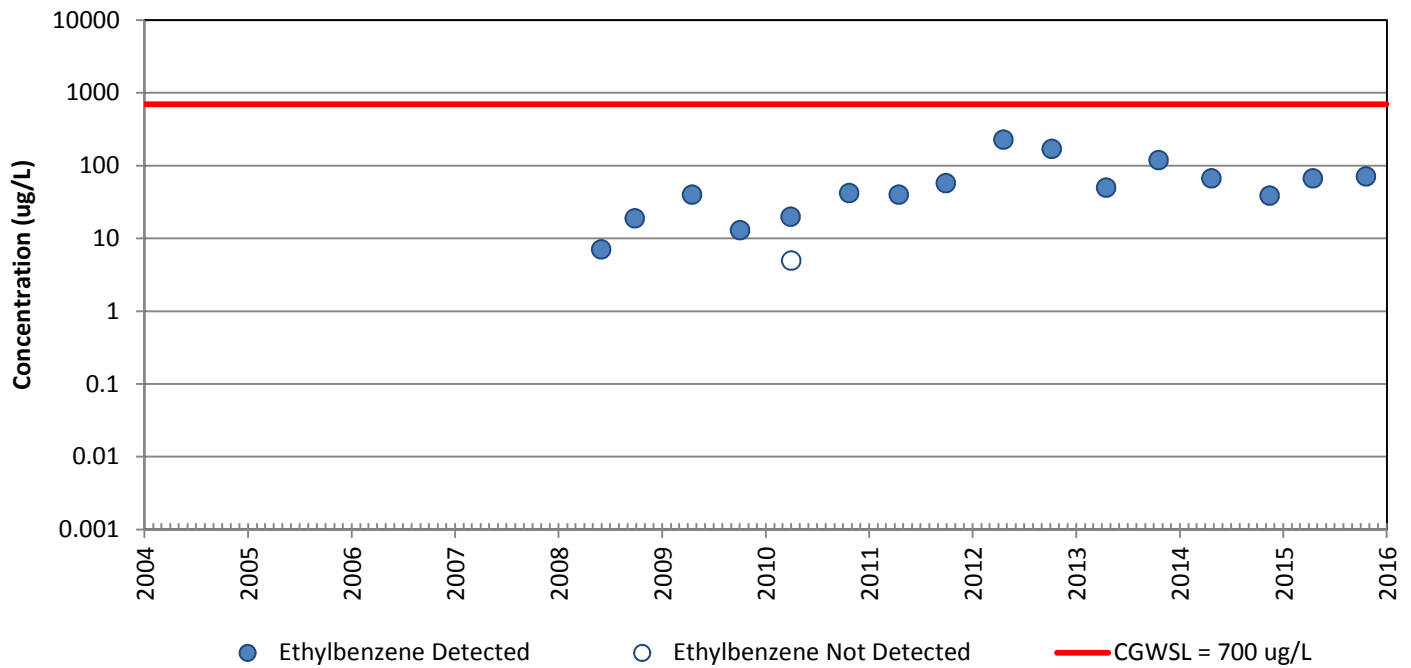


# MW-93

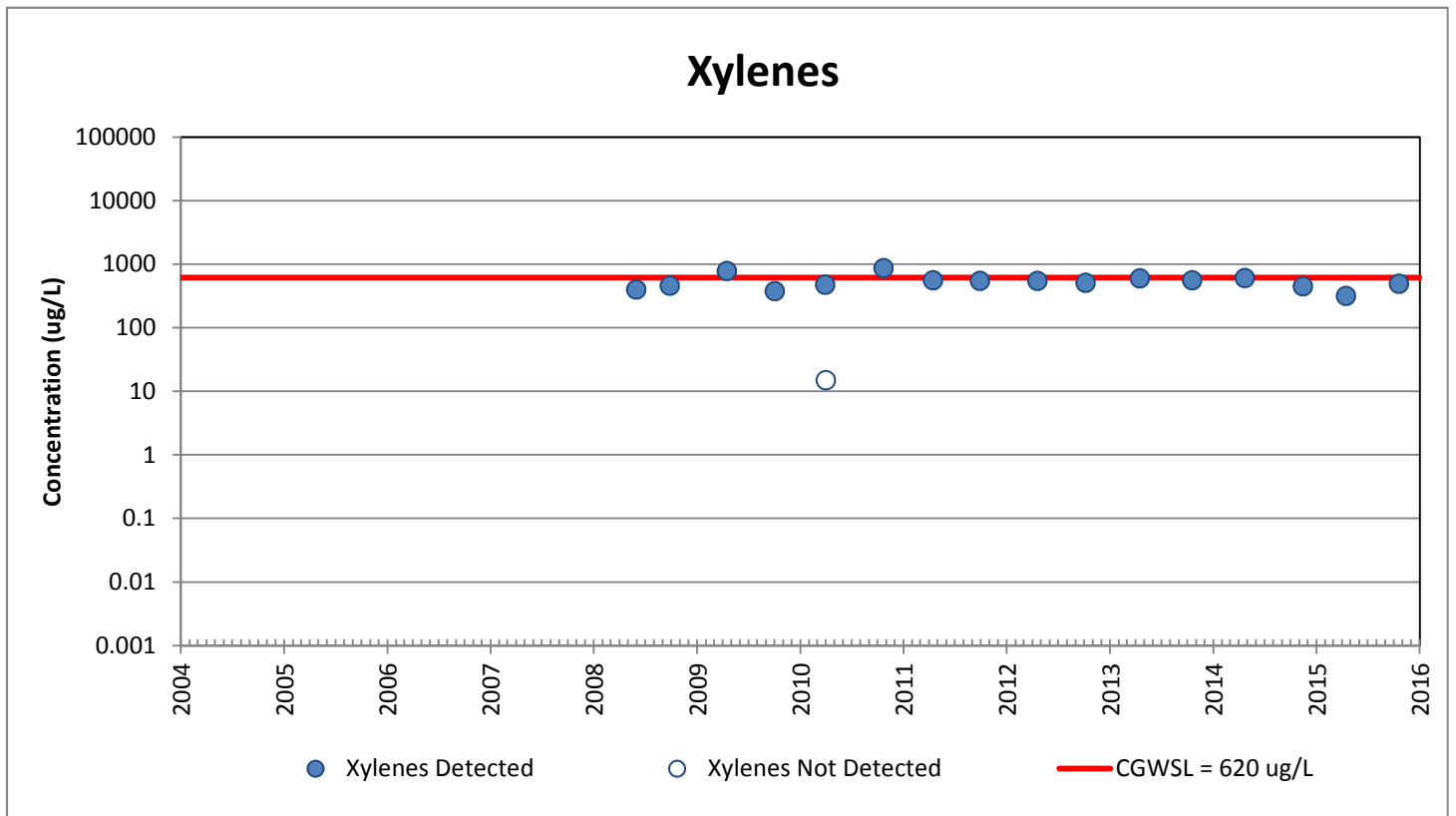
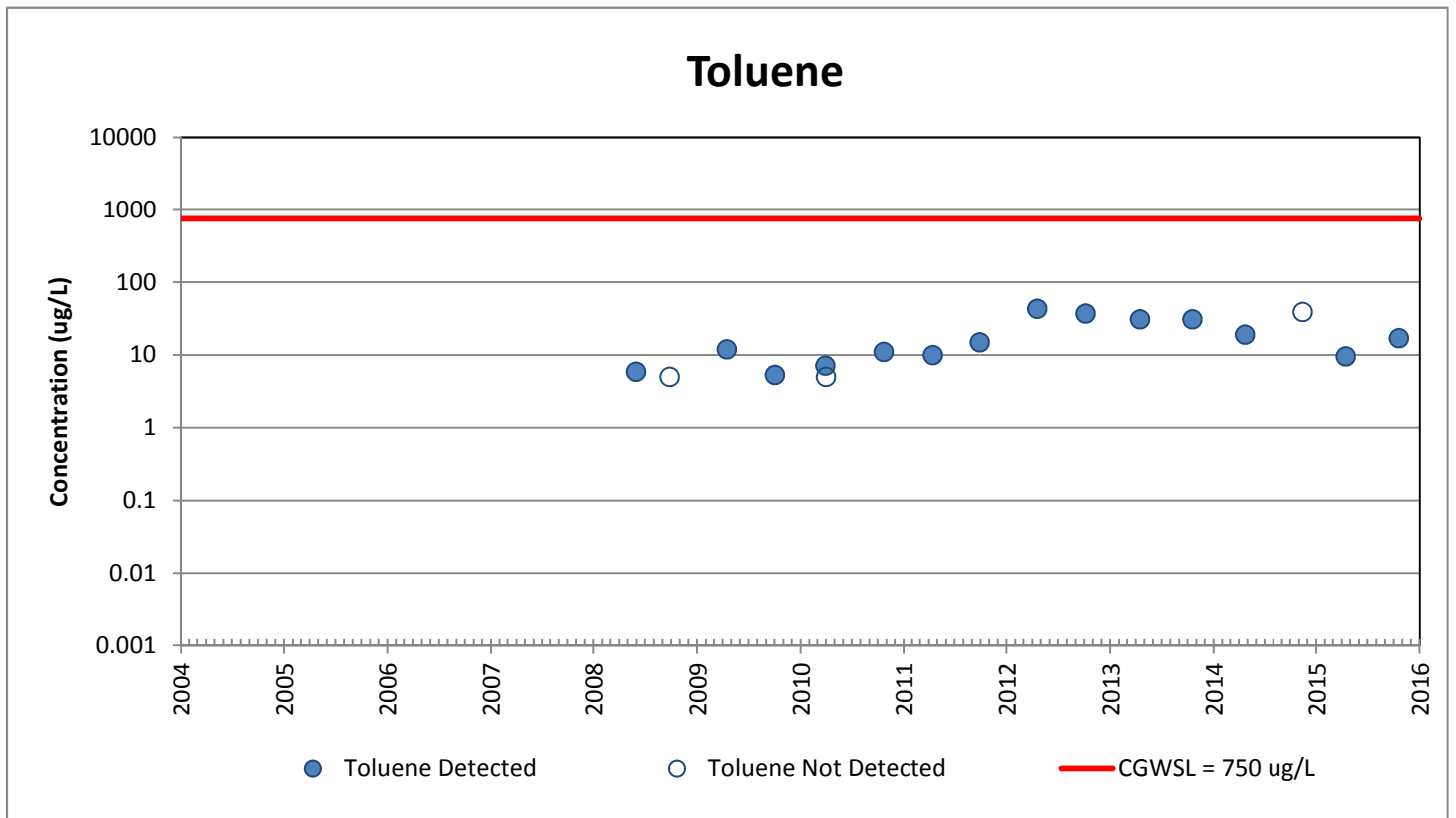
## Benzene



## Ethylbenzene

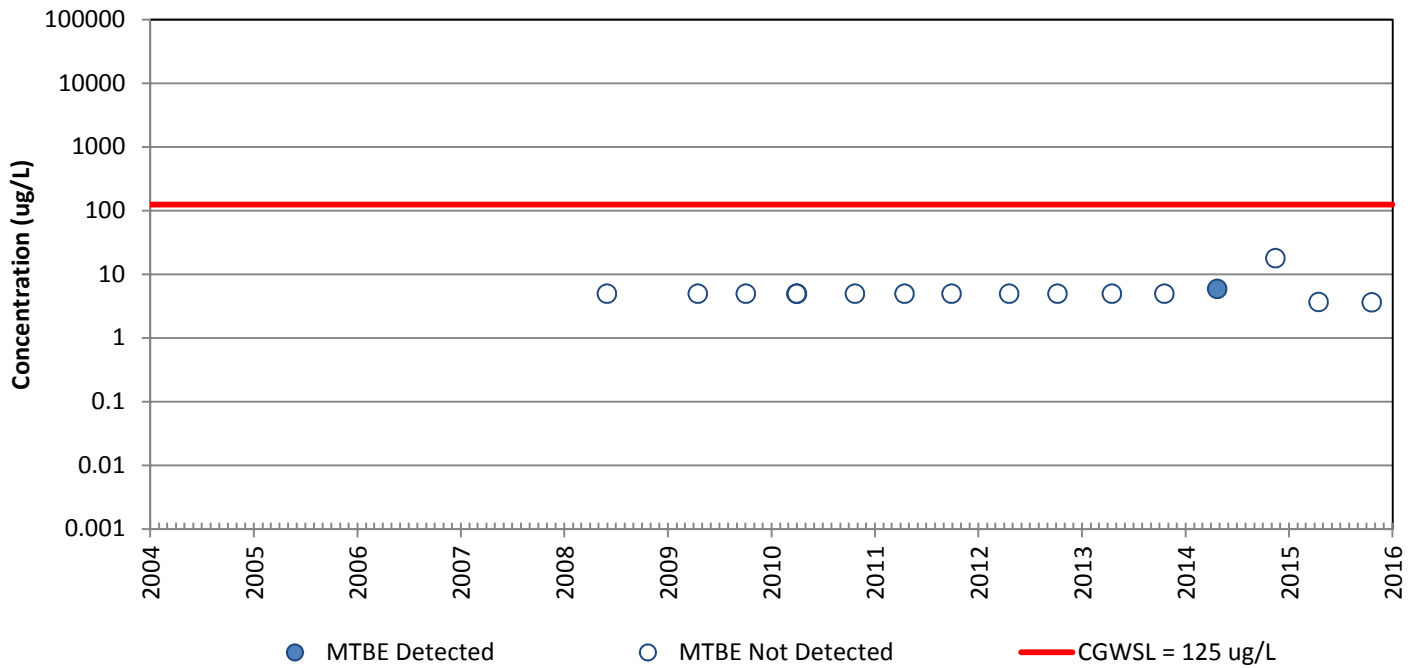


# MW-93

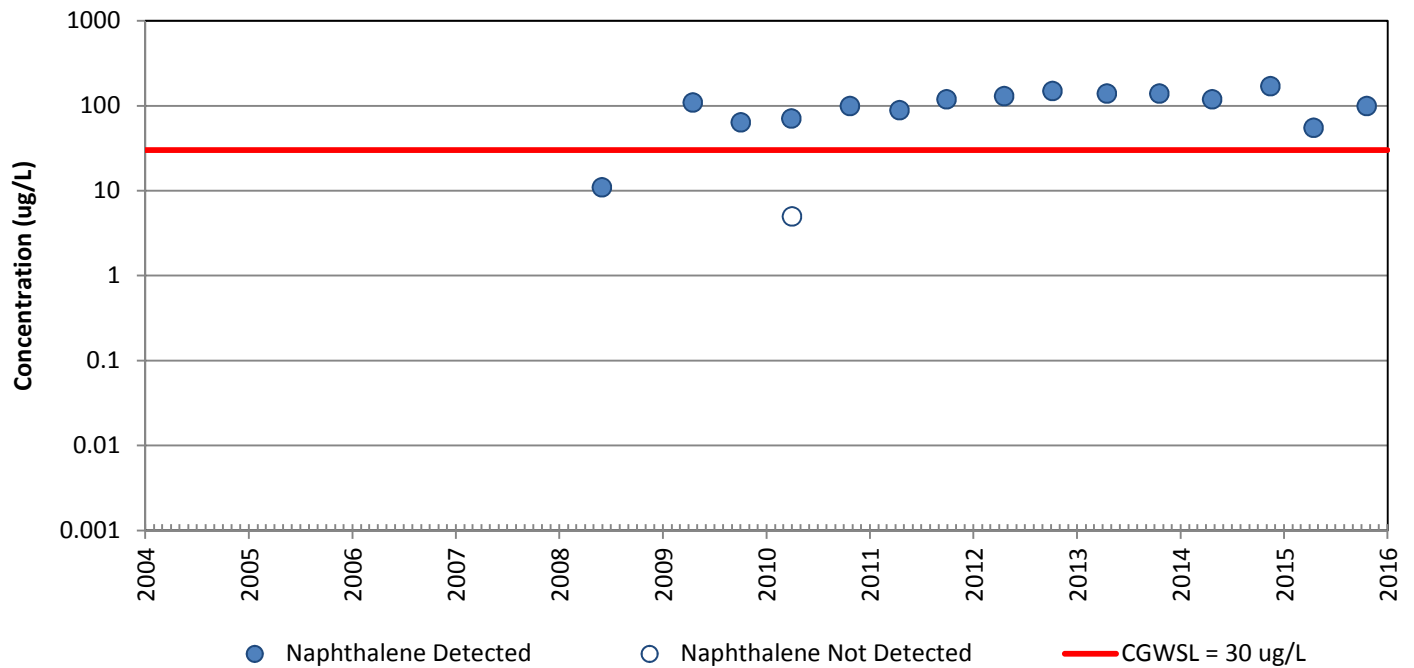


# MW-93

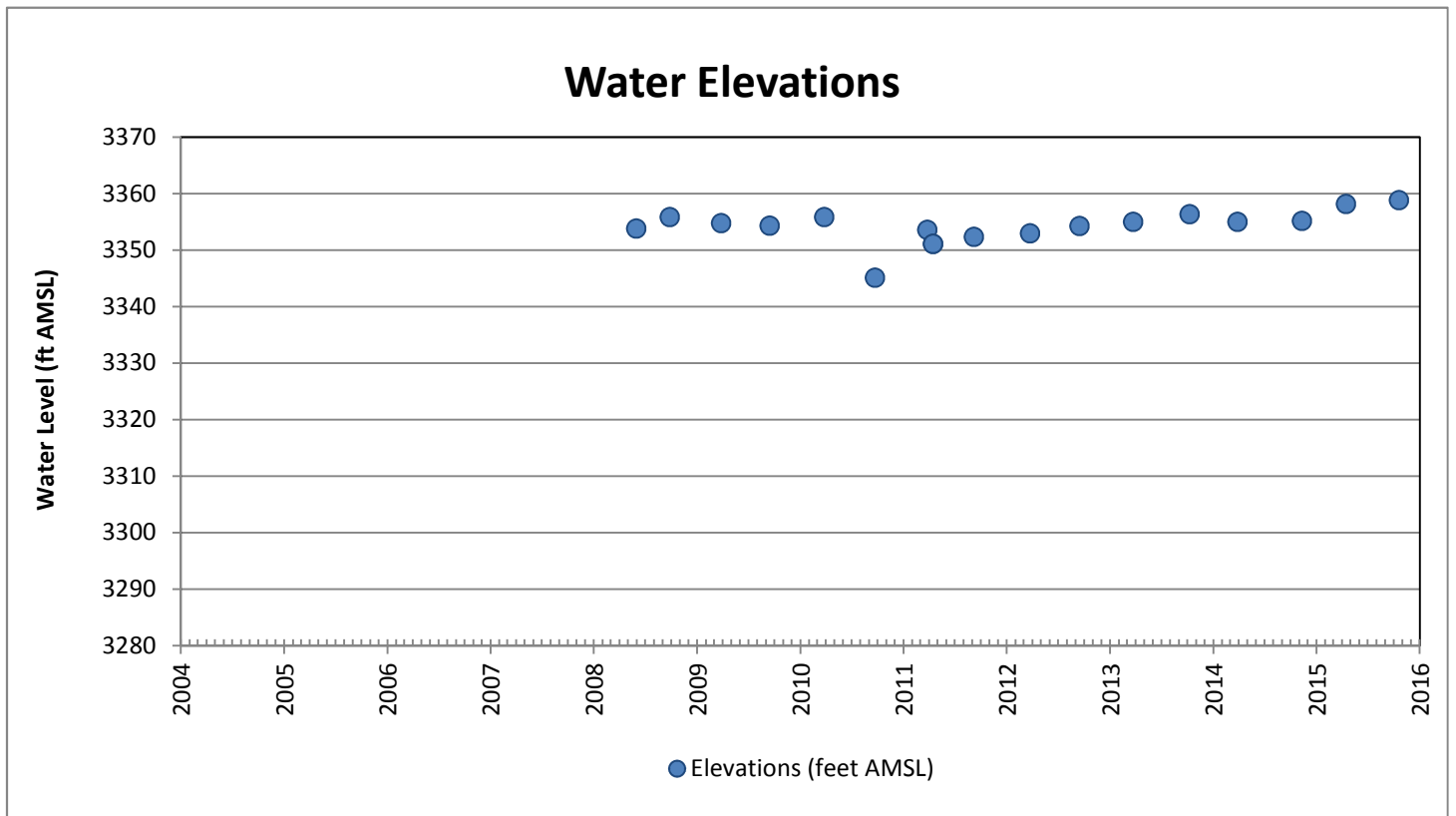
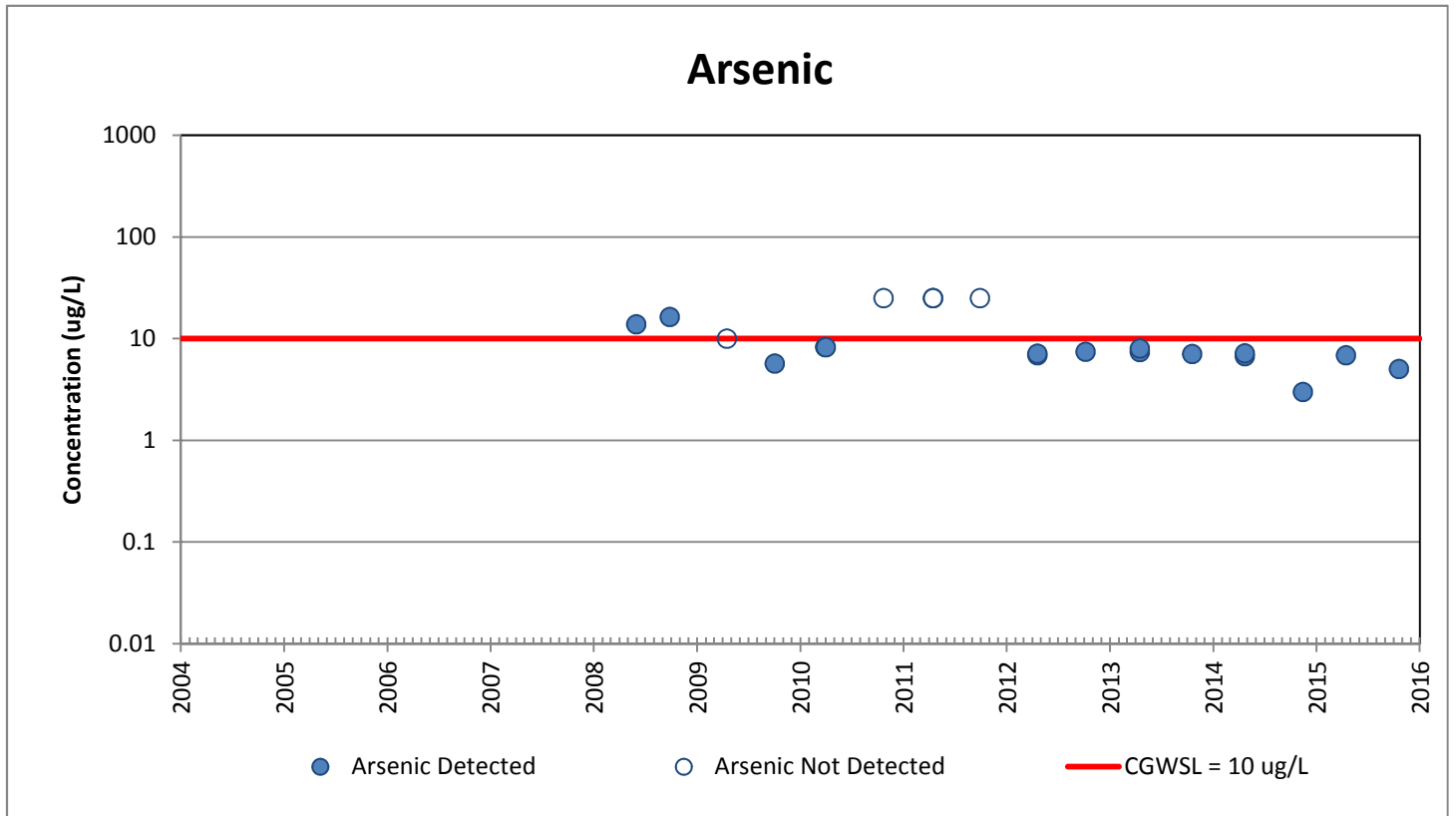
## MTBE



## Naphthalene

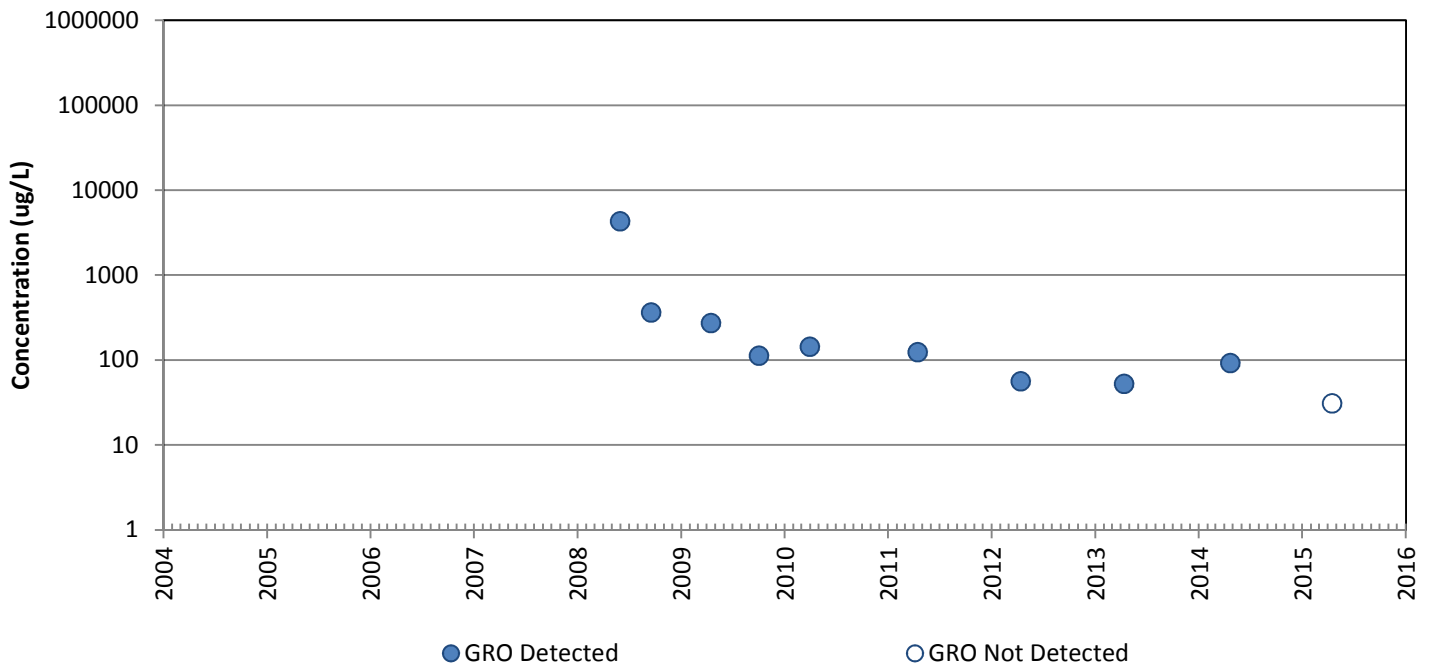


# MW-93

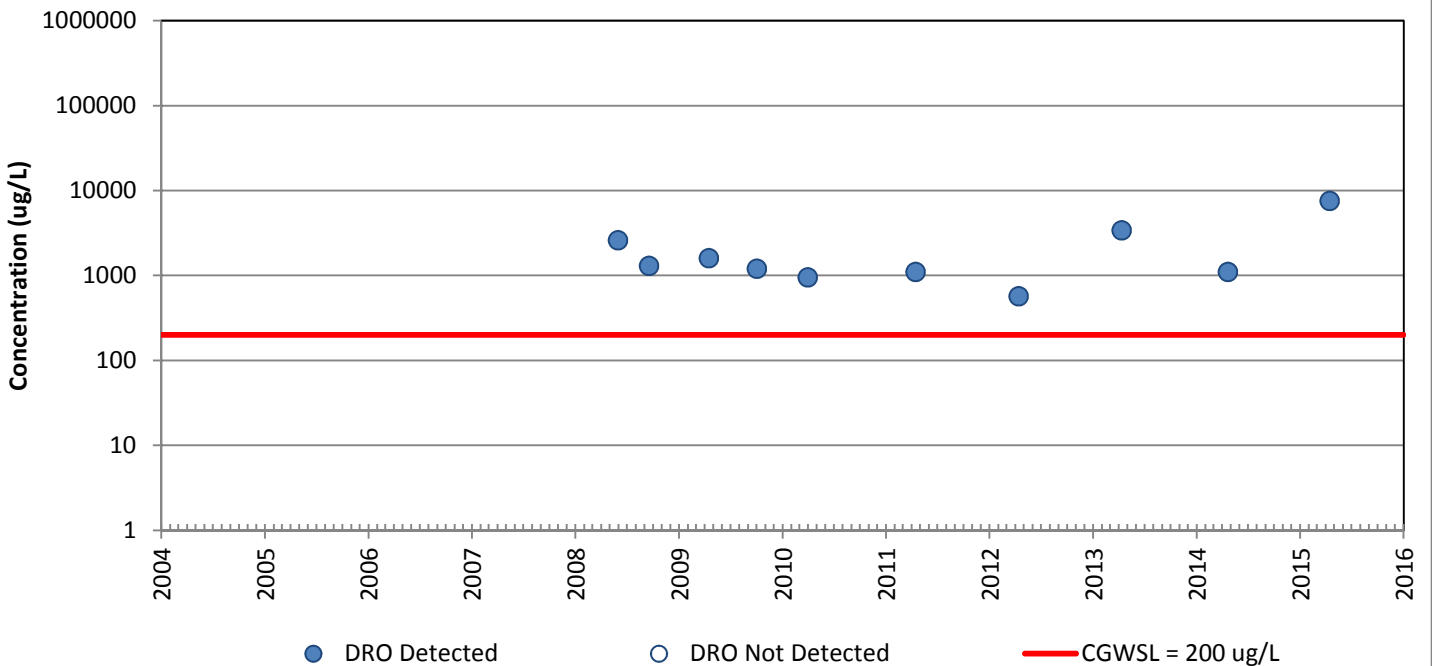


# MW-95

## GRO

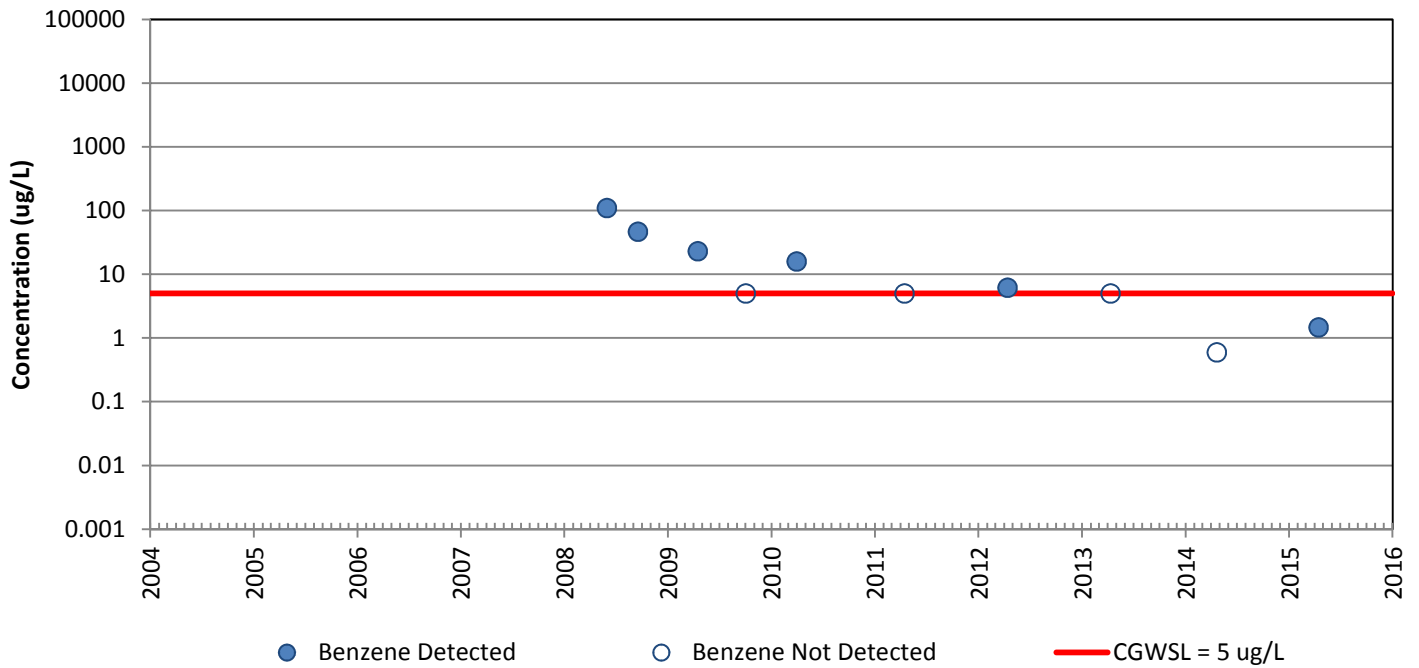


## DRO

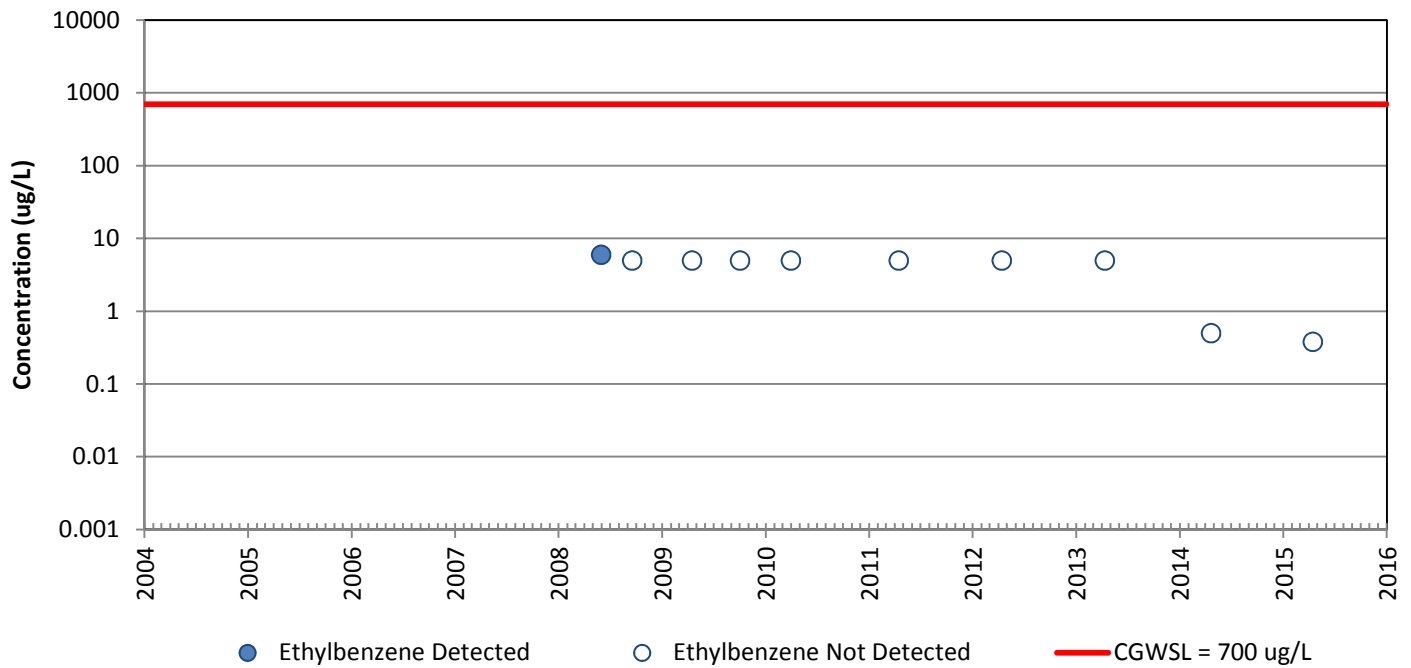


# MW-95

## Benzene

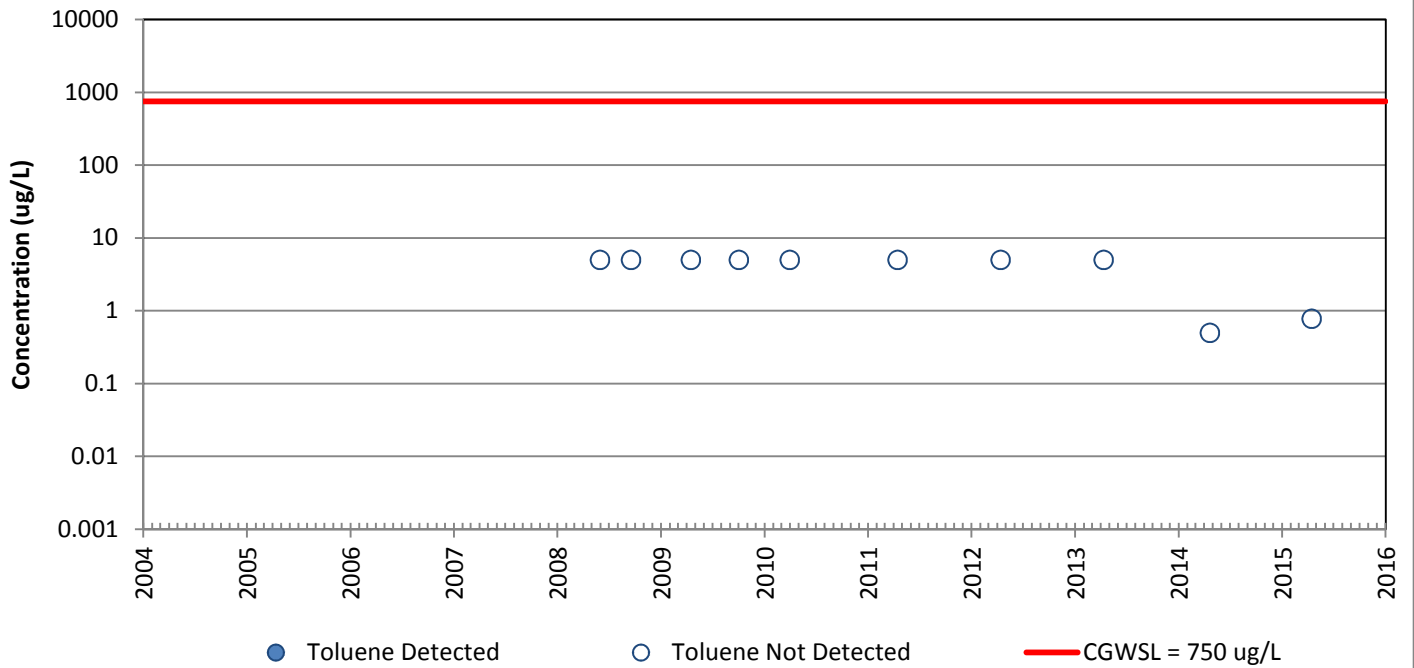


## Ethylbenzene

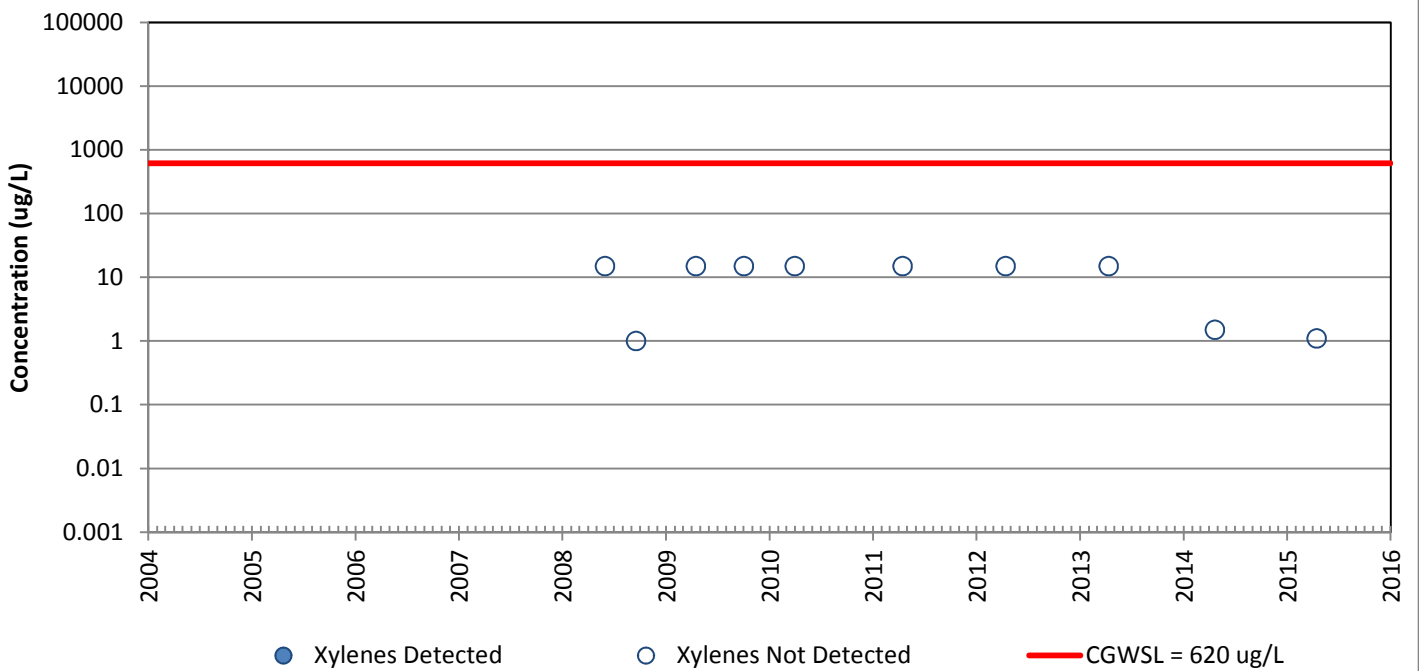


# MW-95

## Toluene

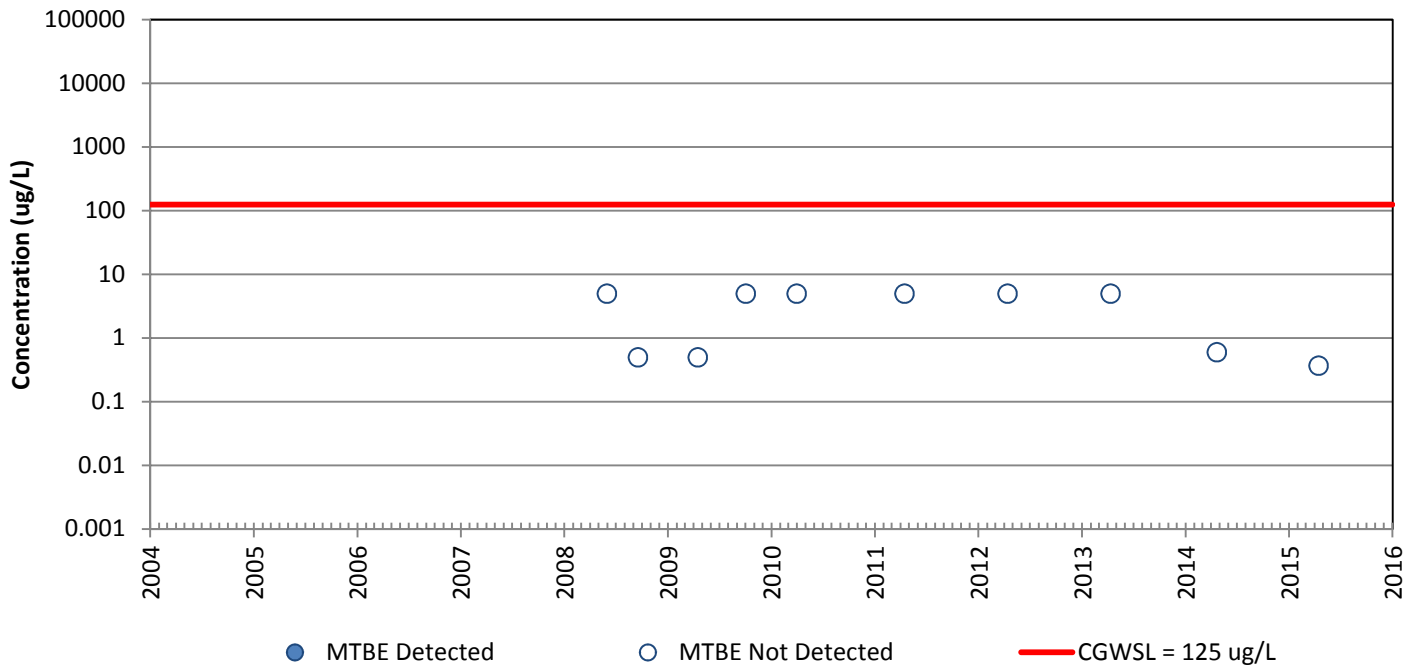


## Xylenes

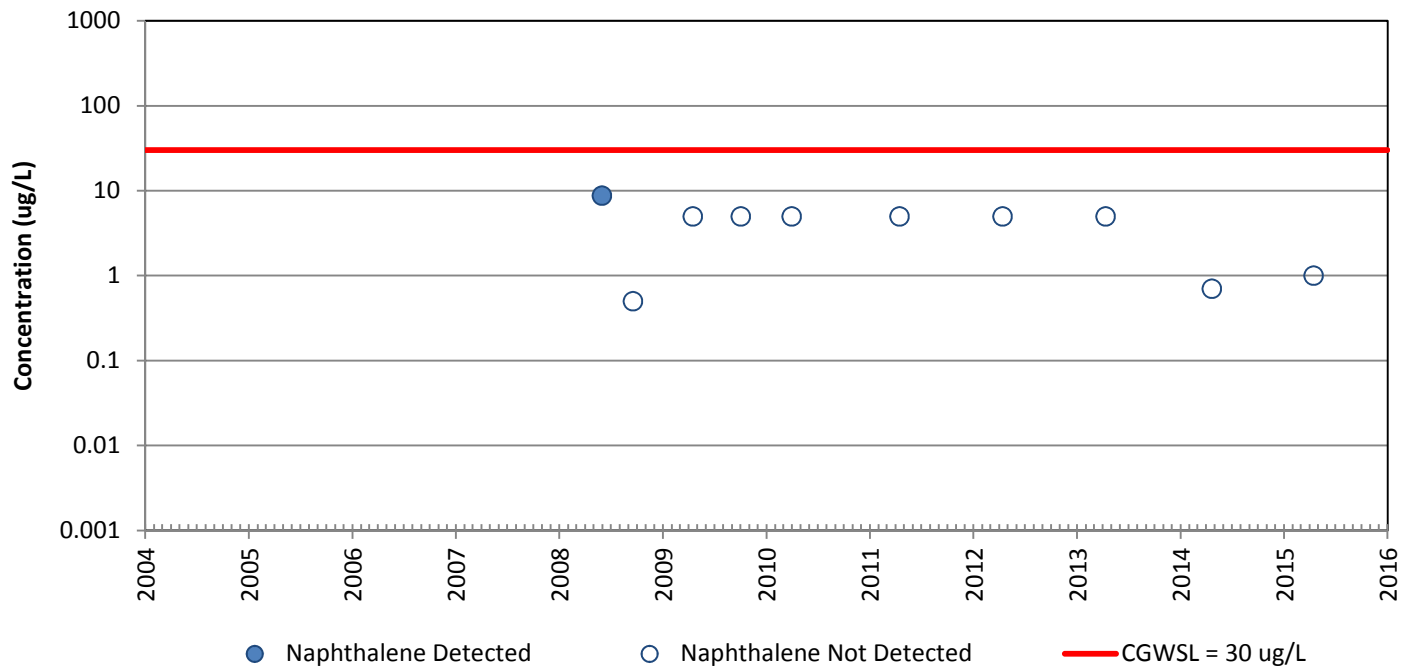


# MW-95

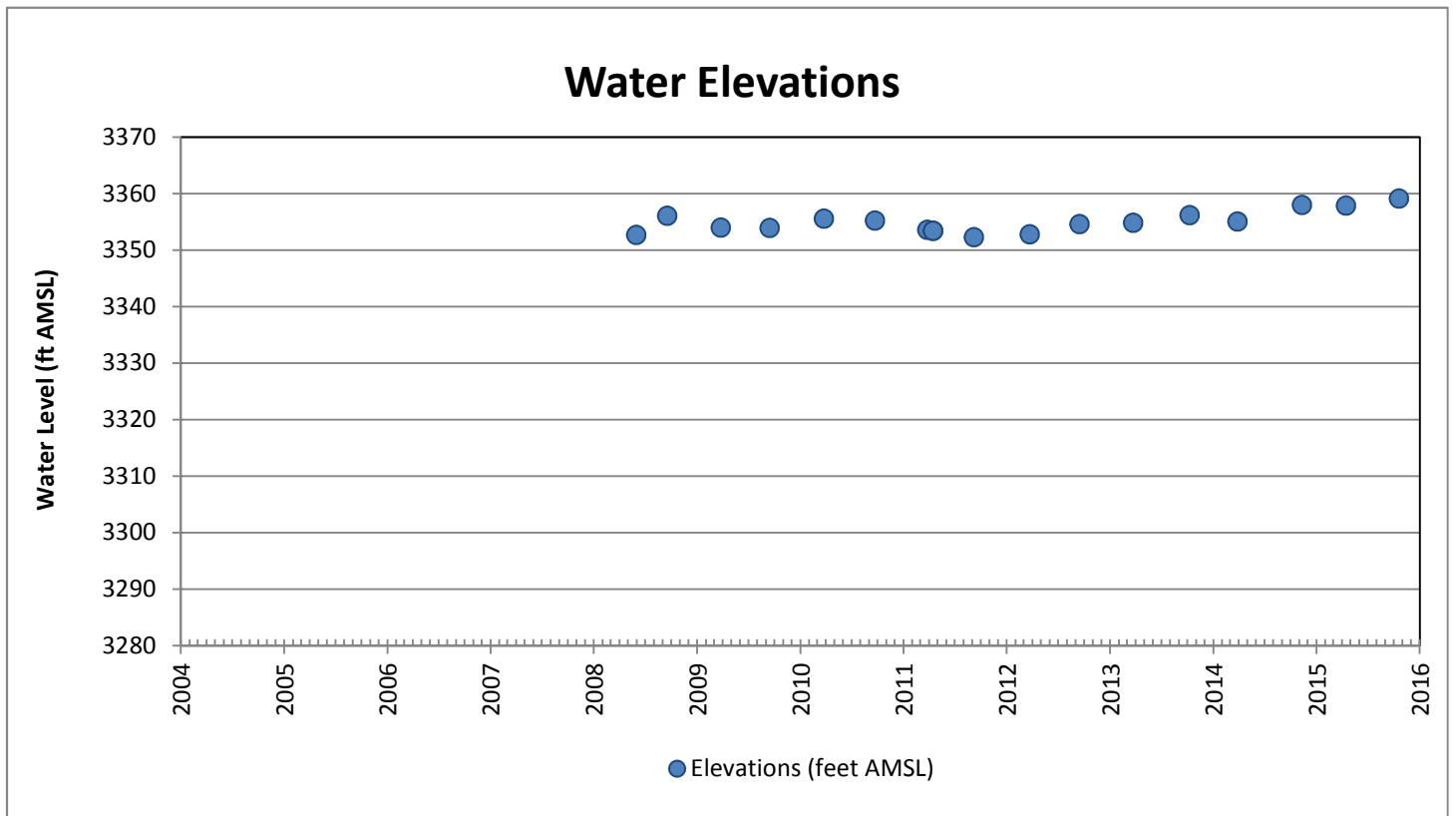
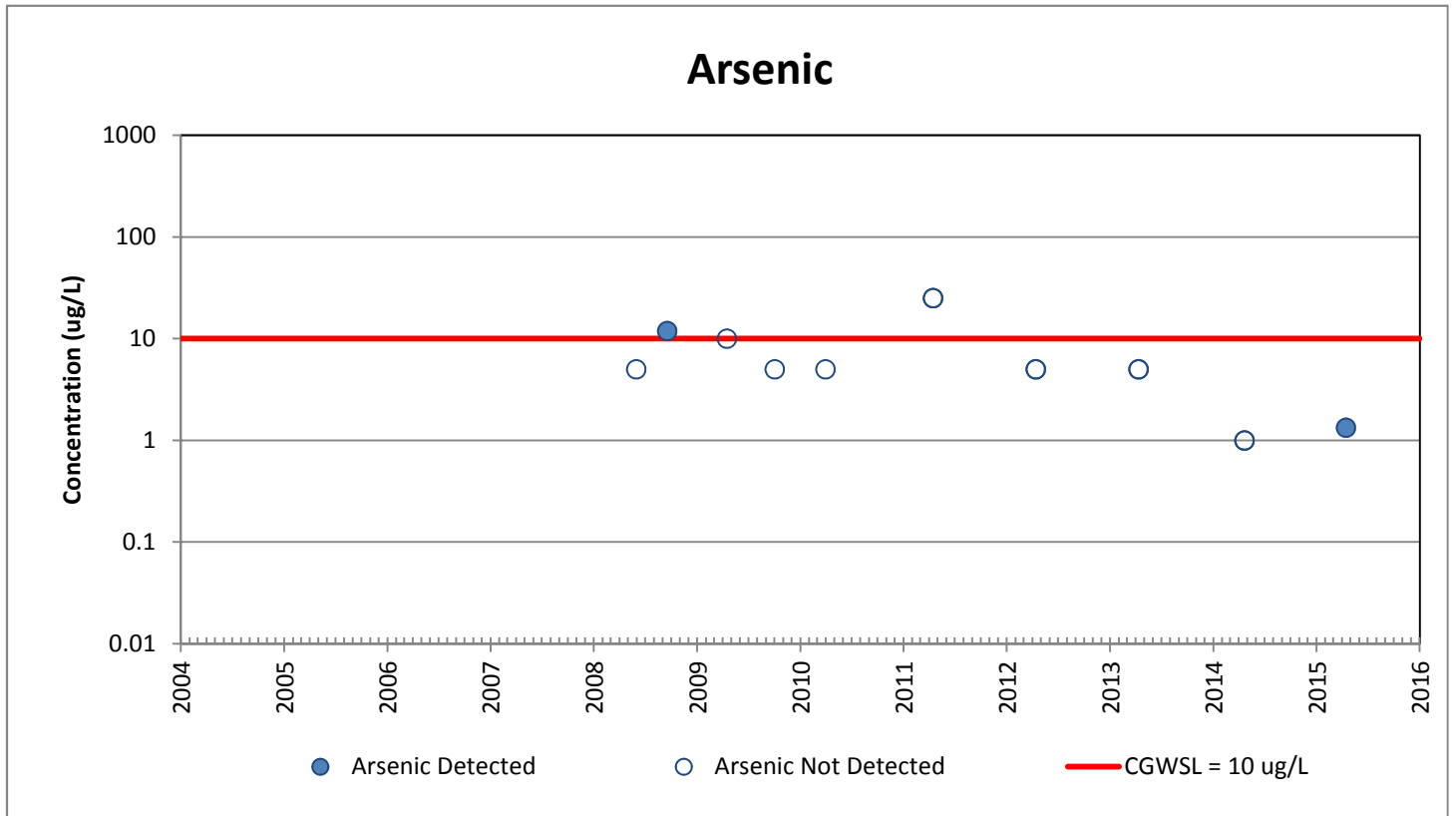
## MTBE



## Naphthalene

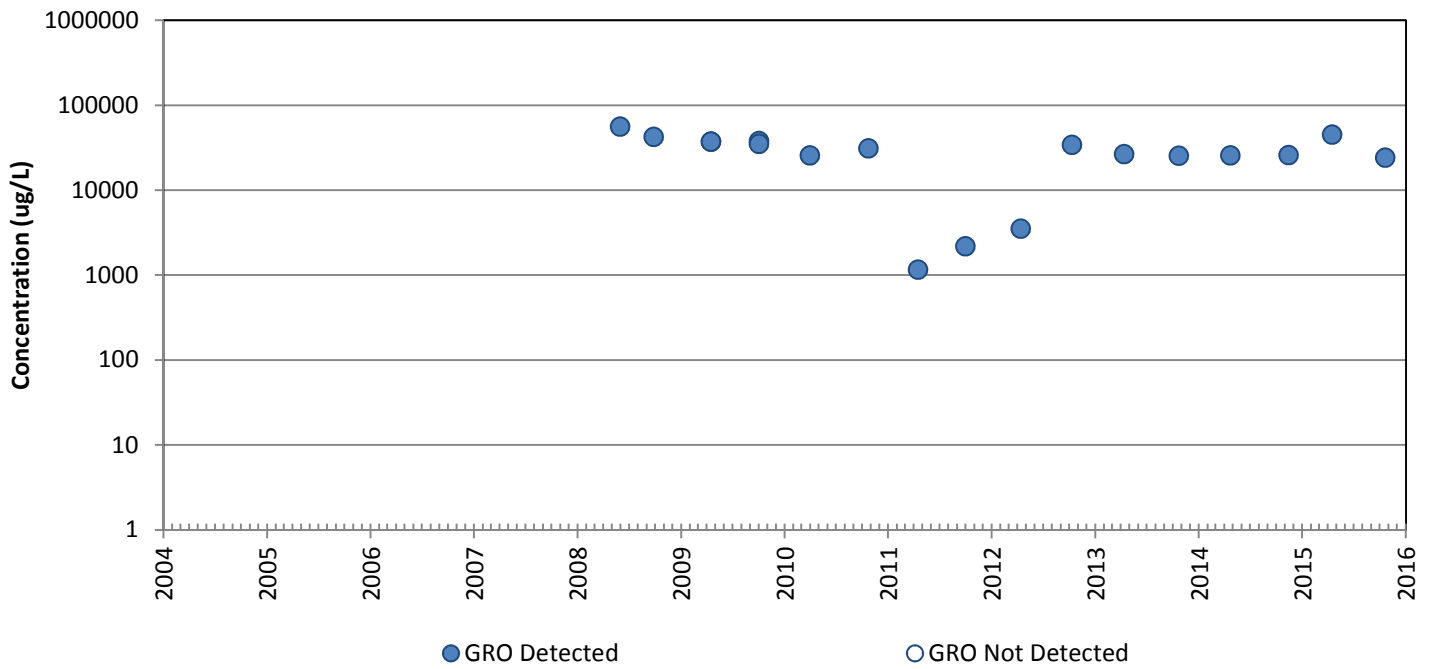


# MW-95

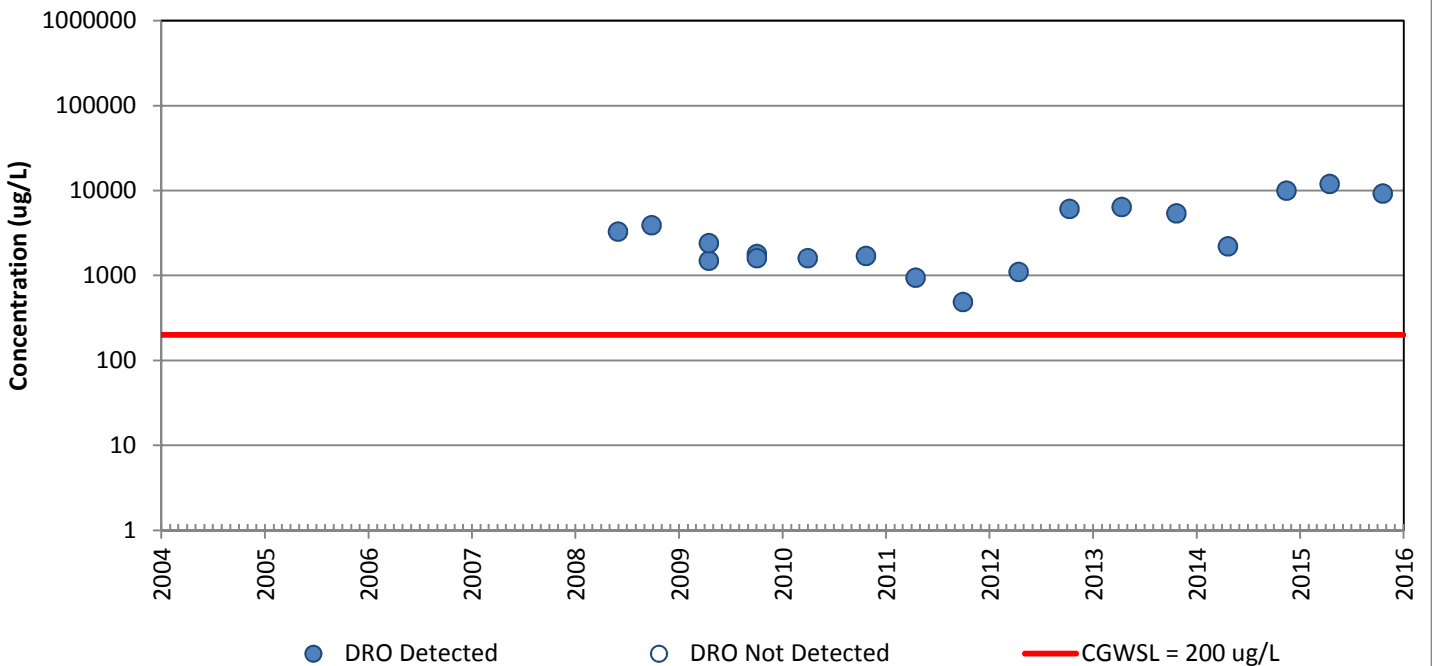


# MW-96

## GRO

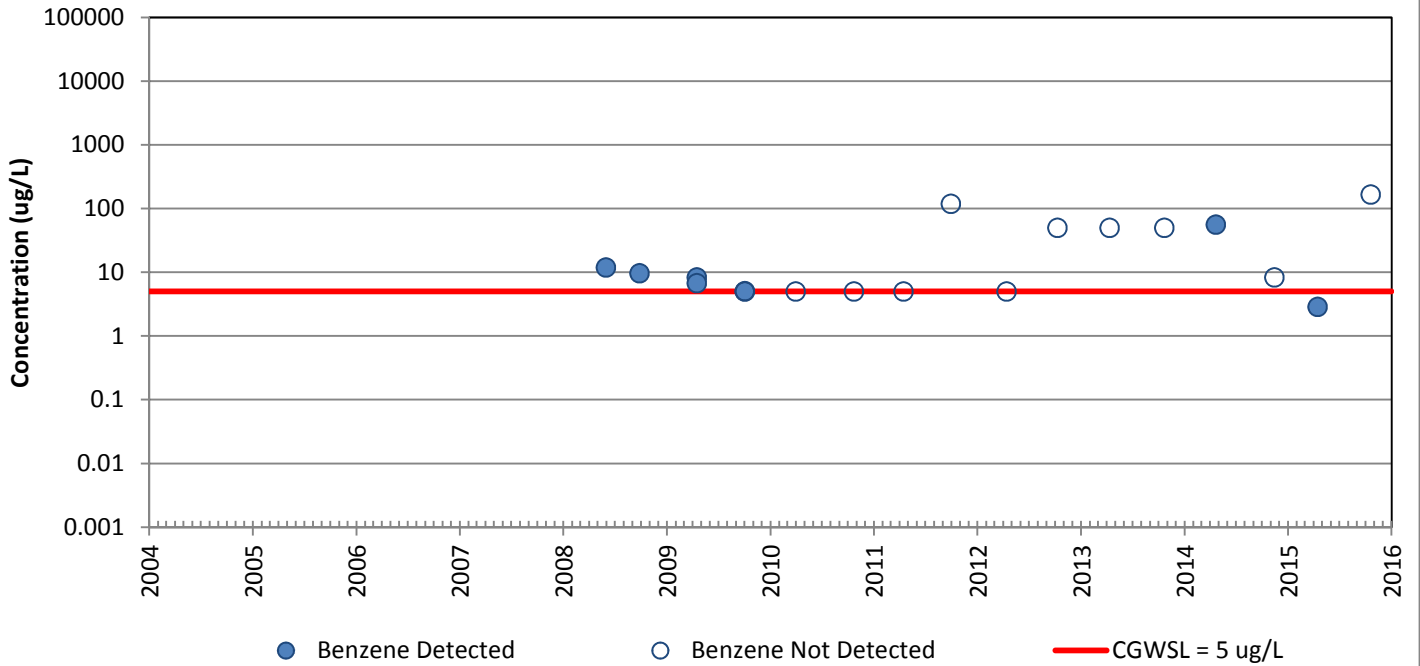


## DRO

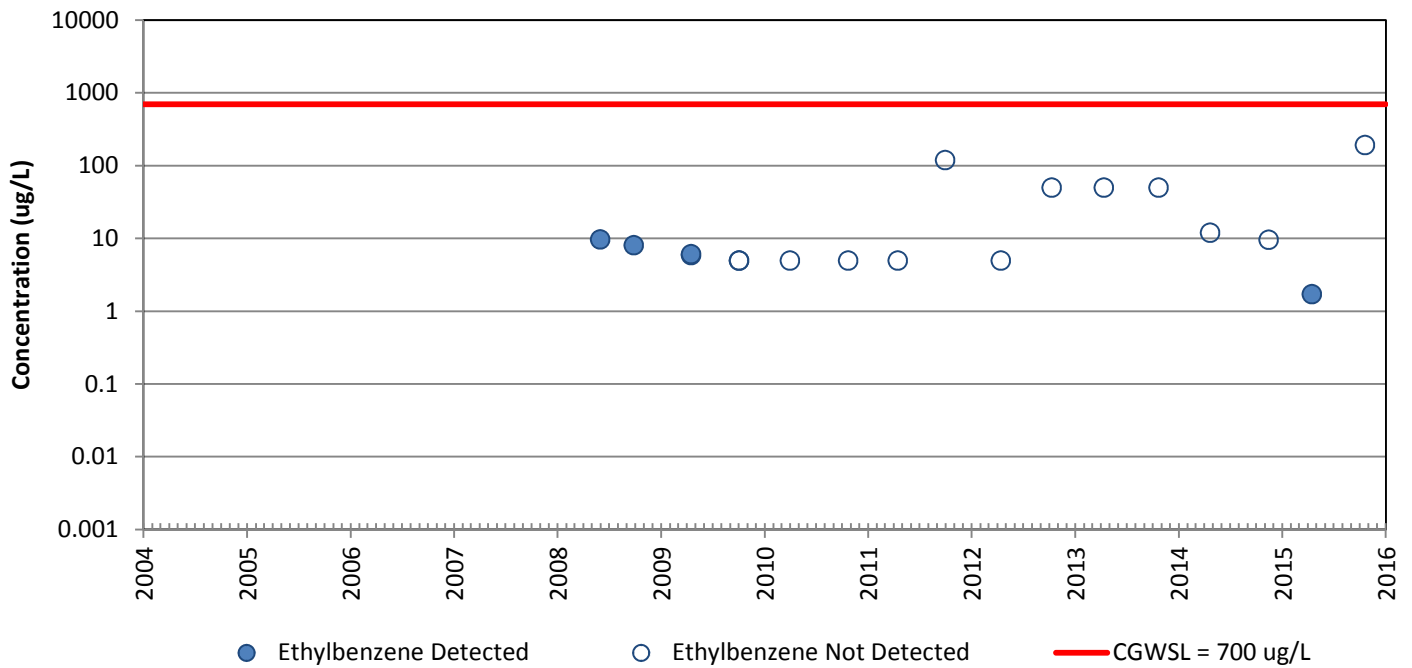


# MW-96

## Benzene

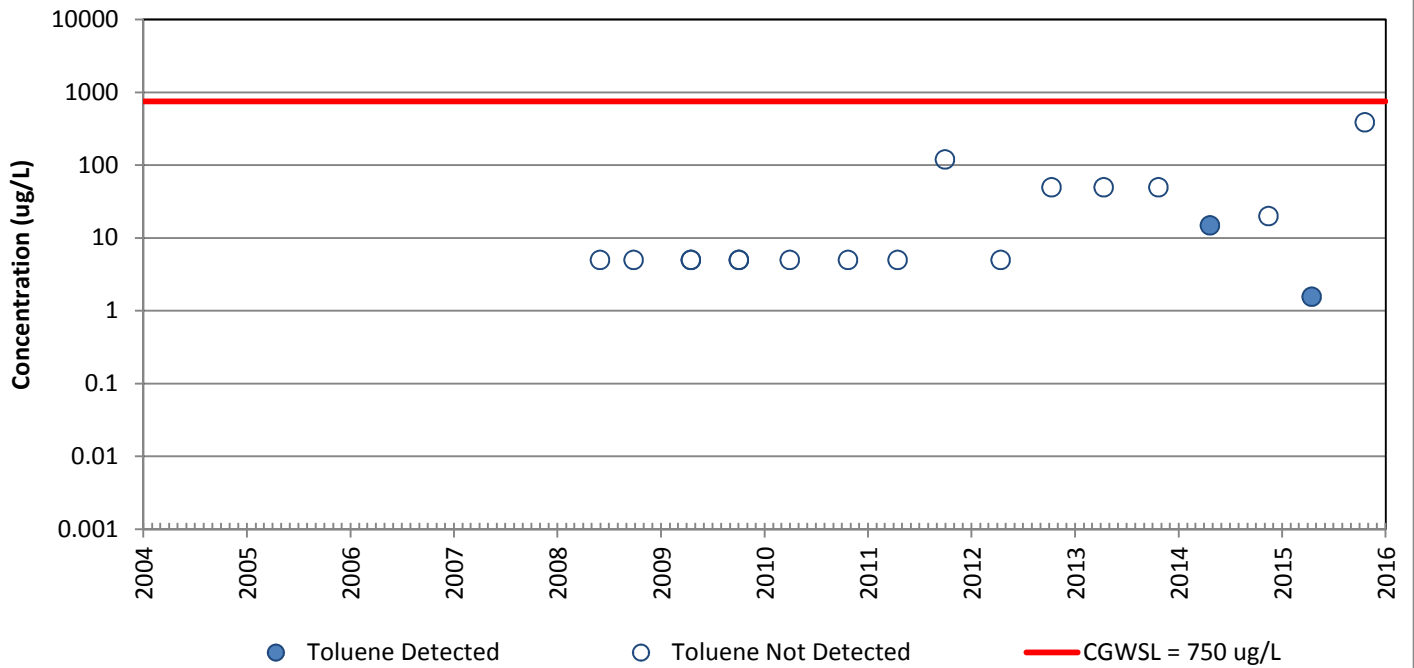


## Ethylbenzene

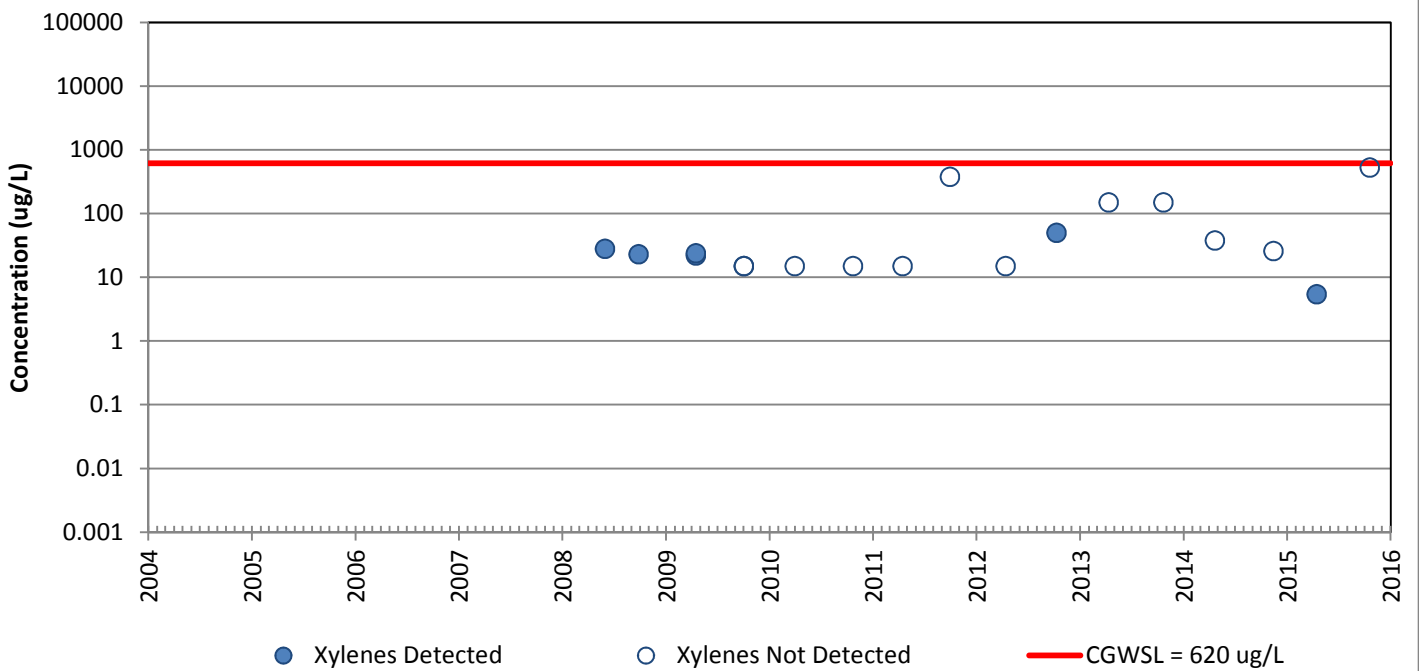


# MW-96

## Toluene

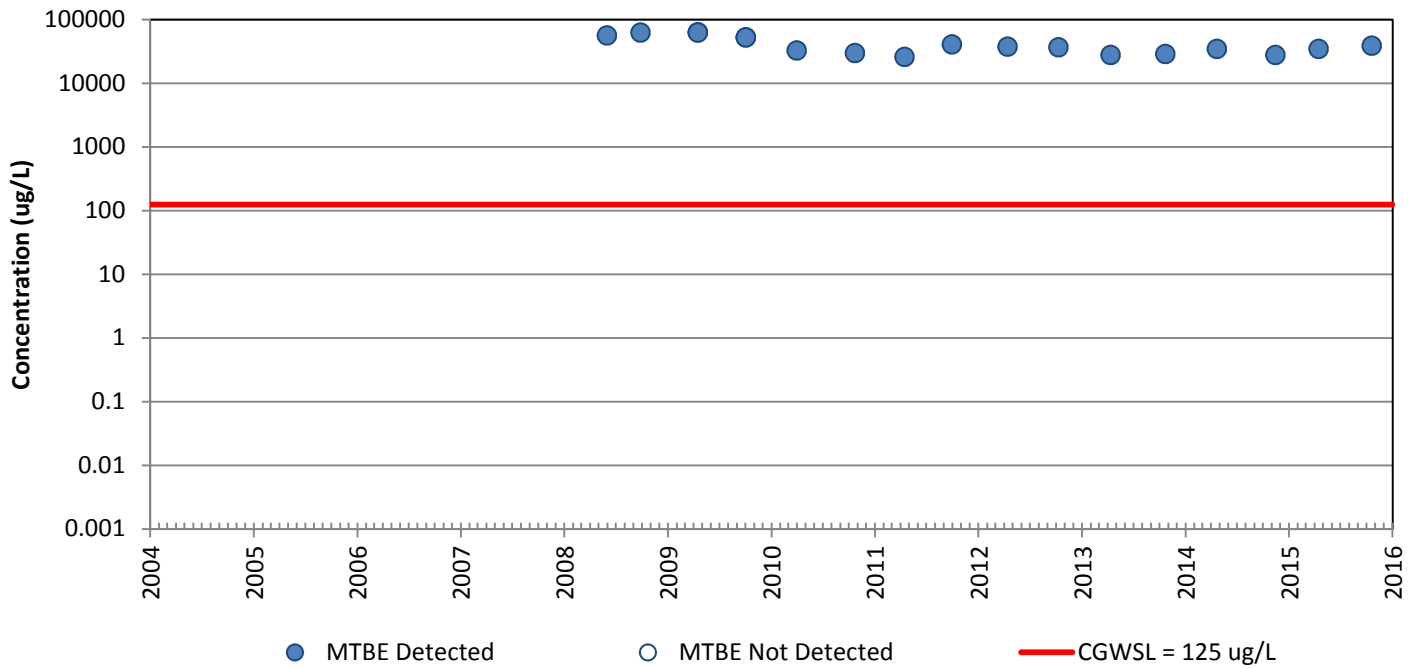


## Xylenes

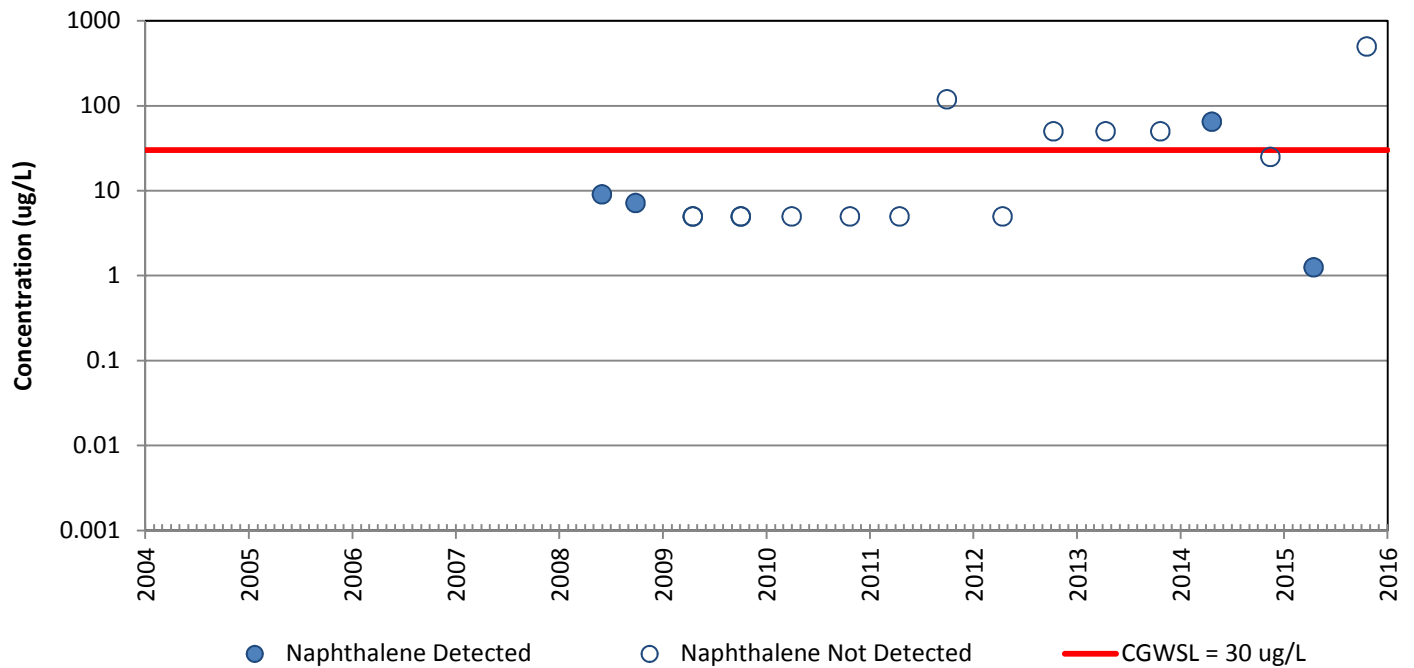


# MW-96

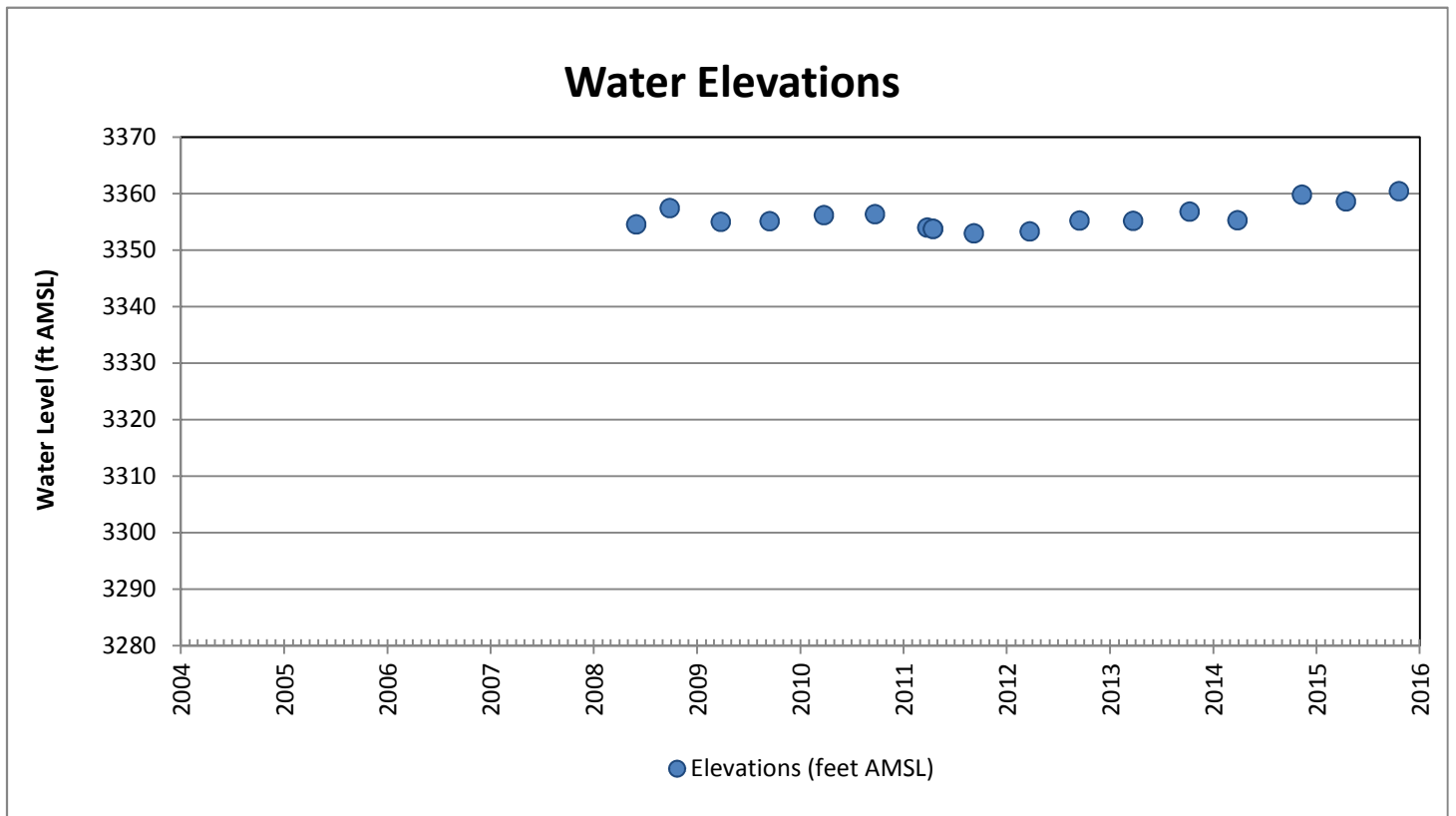
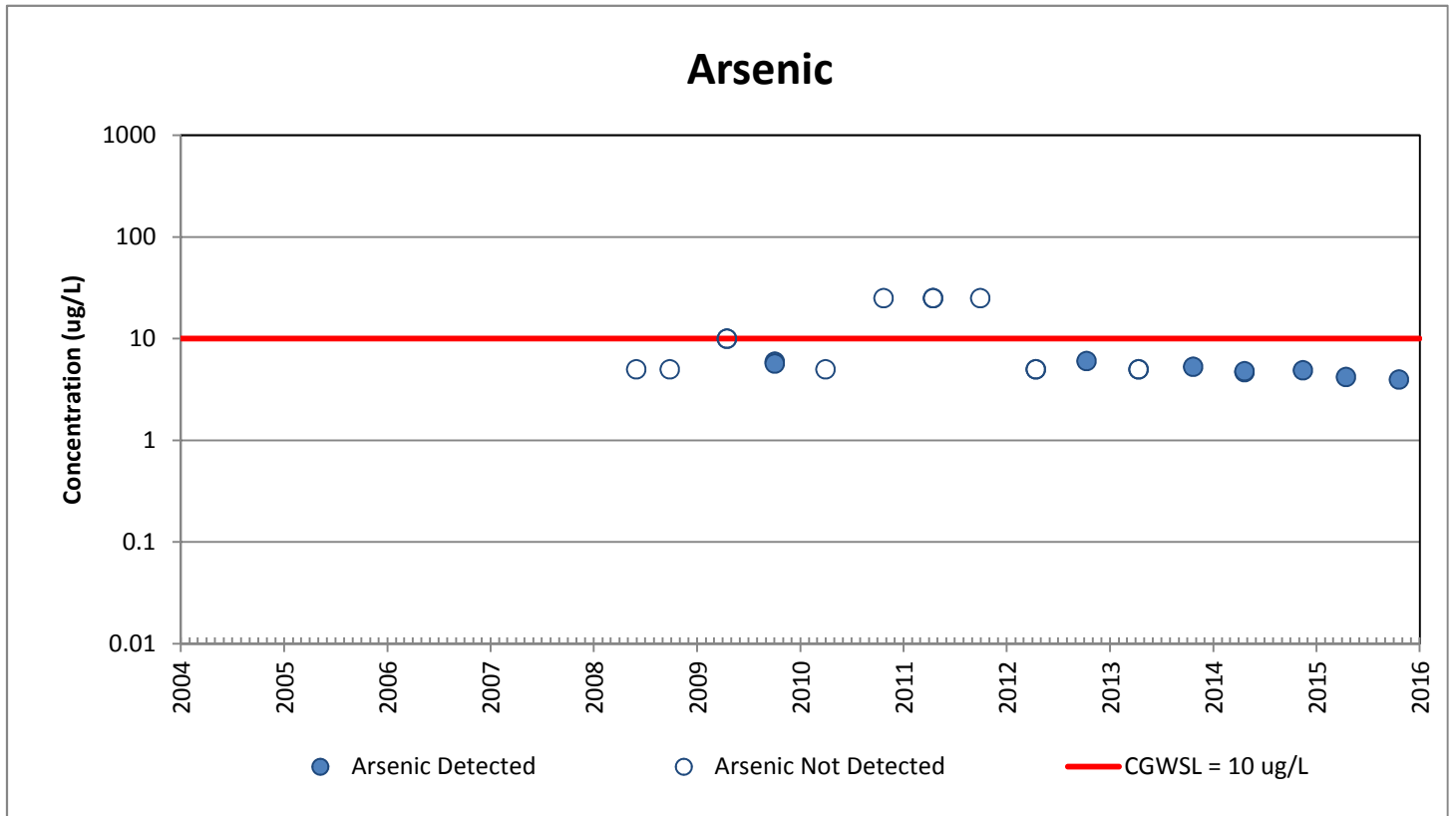
## MTBE



## Naphthalene

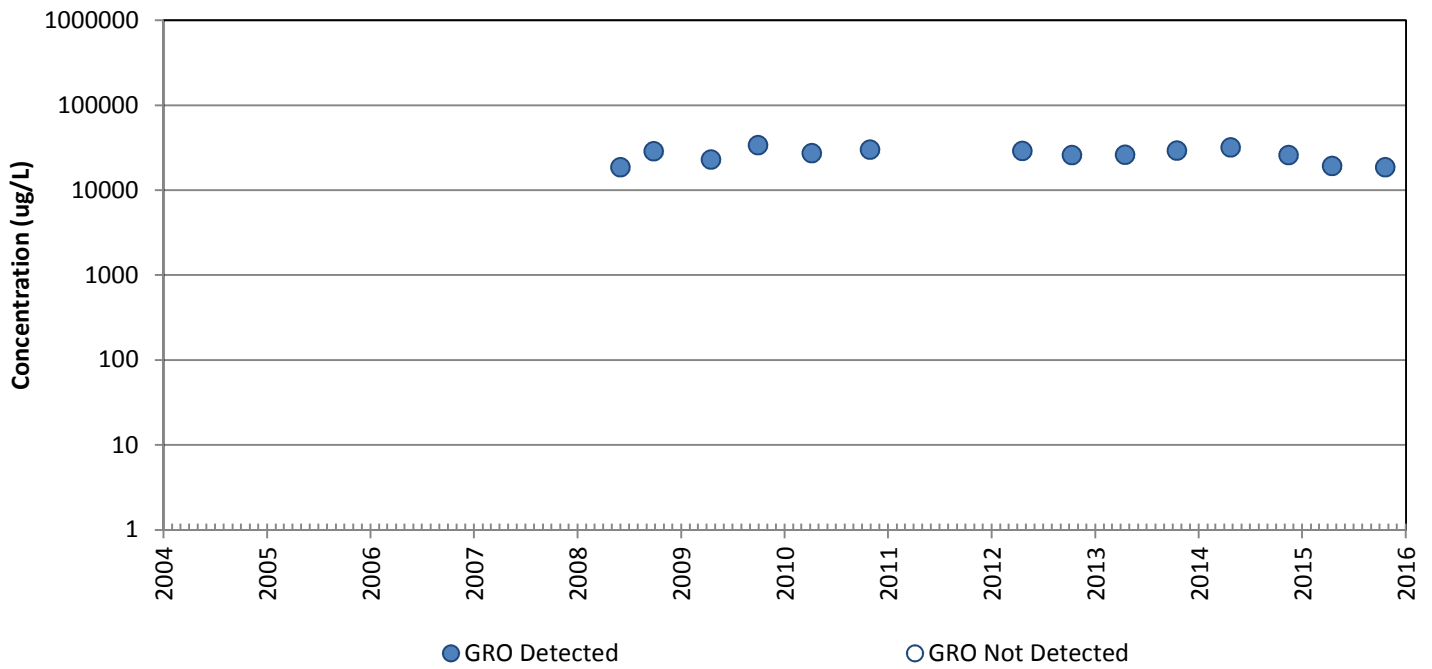


# MW-96

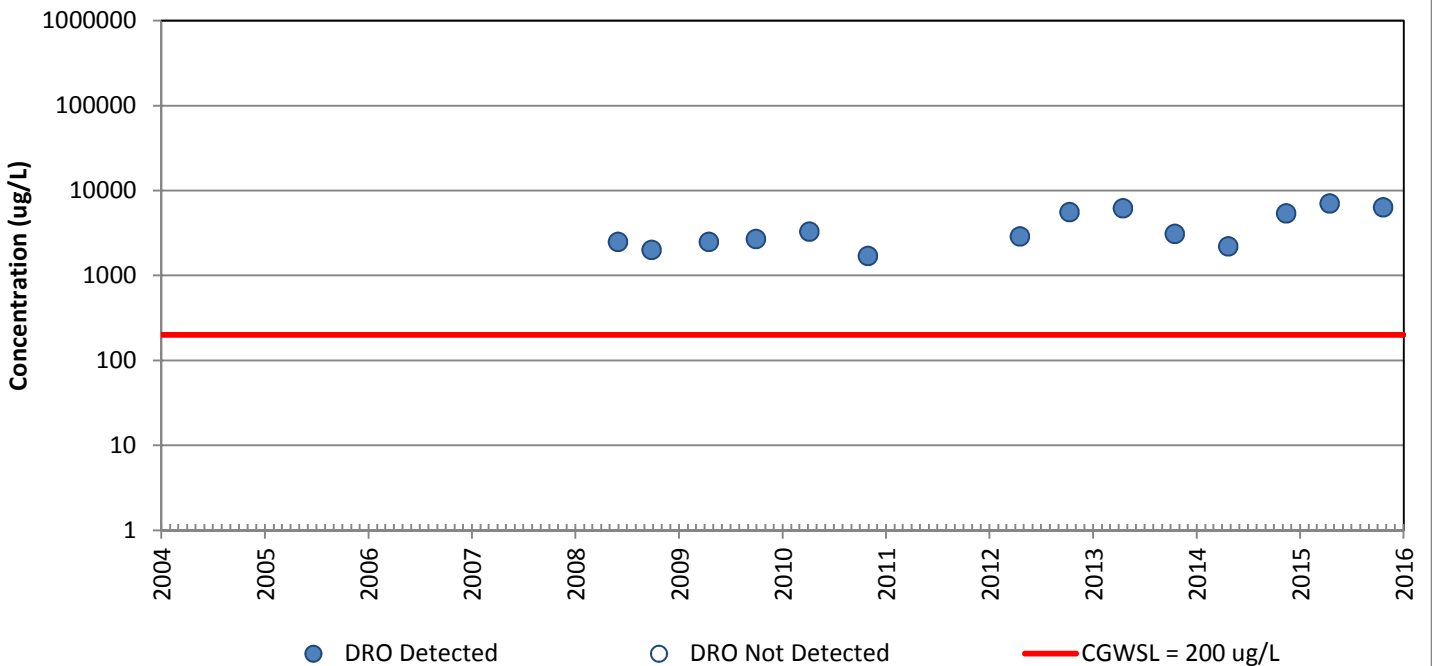


# MW-98

## GRO

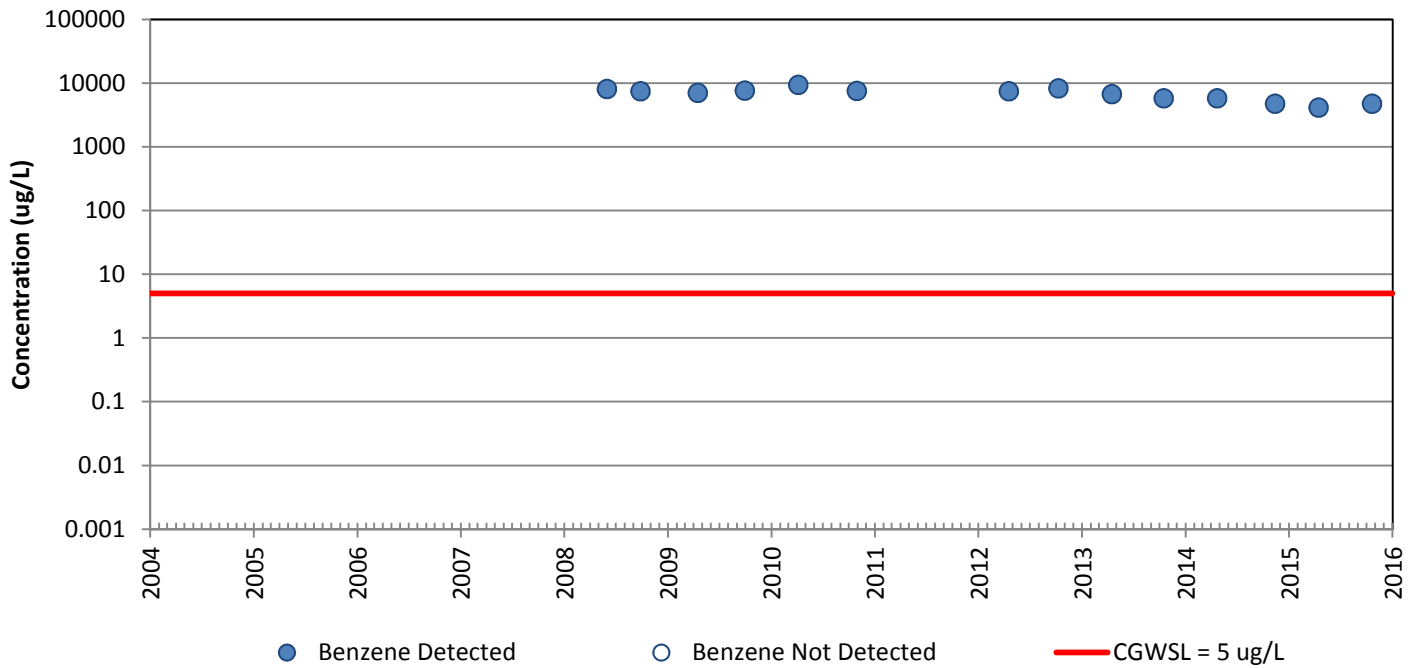


## DRO

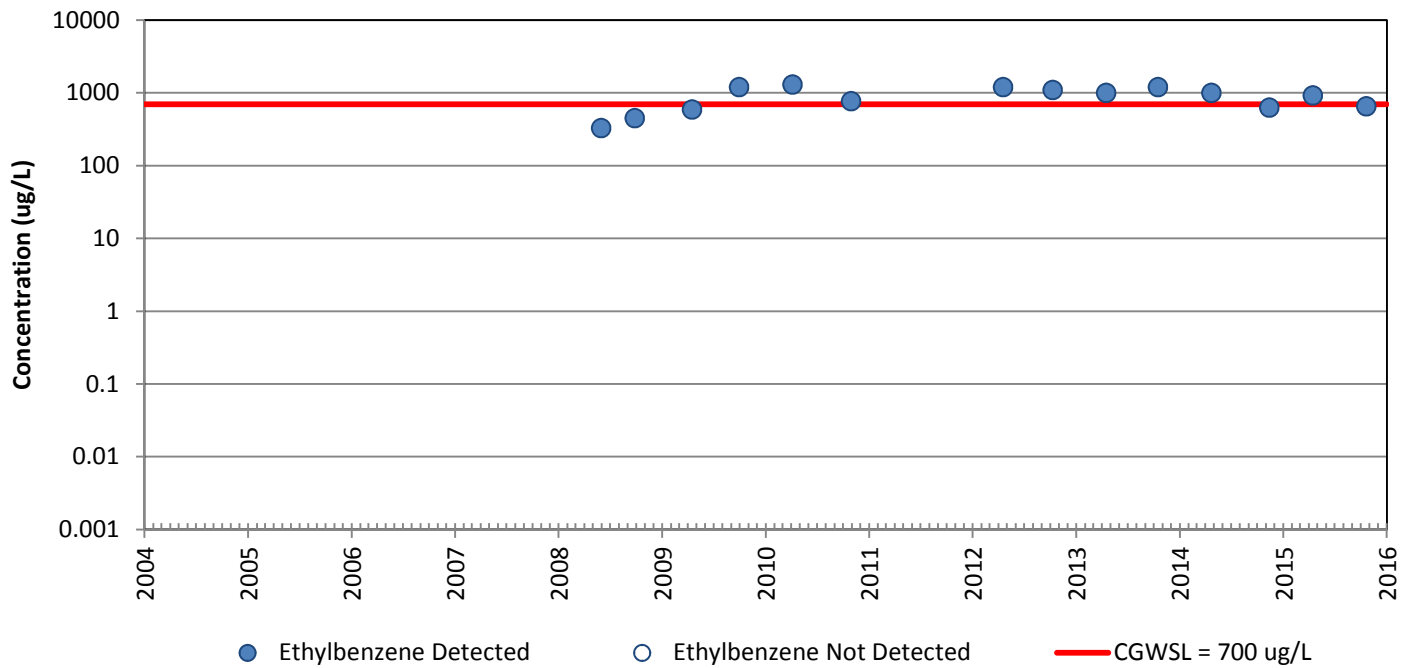


# MW-98

## Benzene

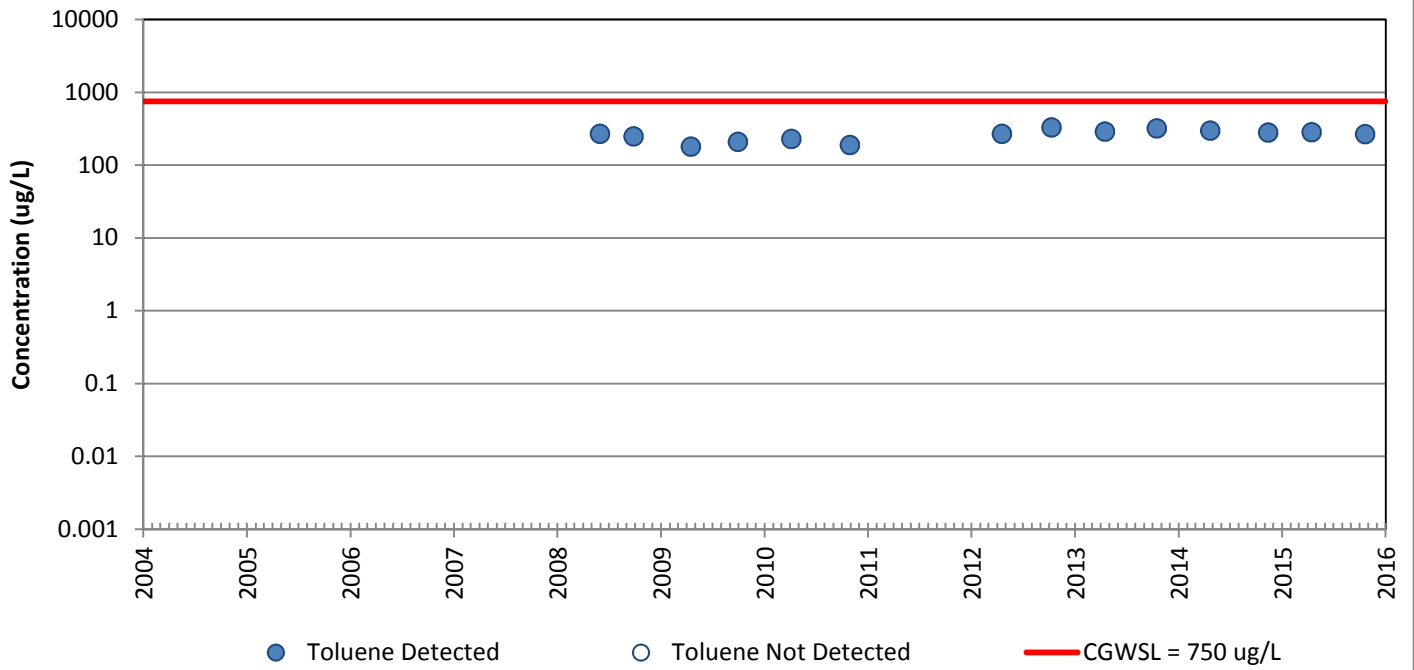


## Ethylbenzene

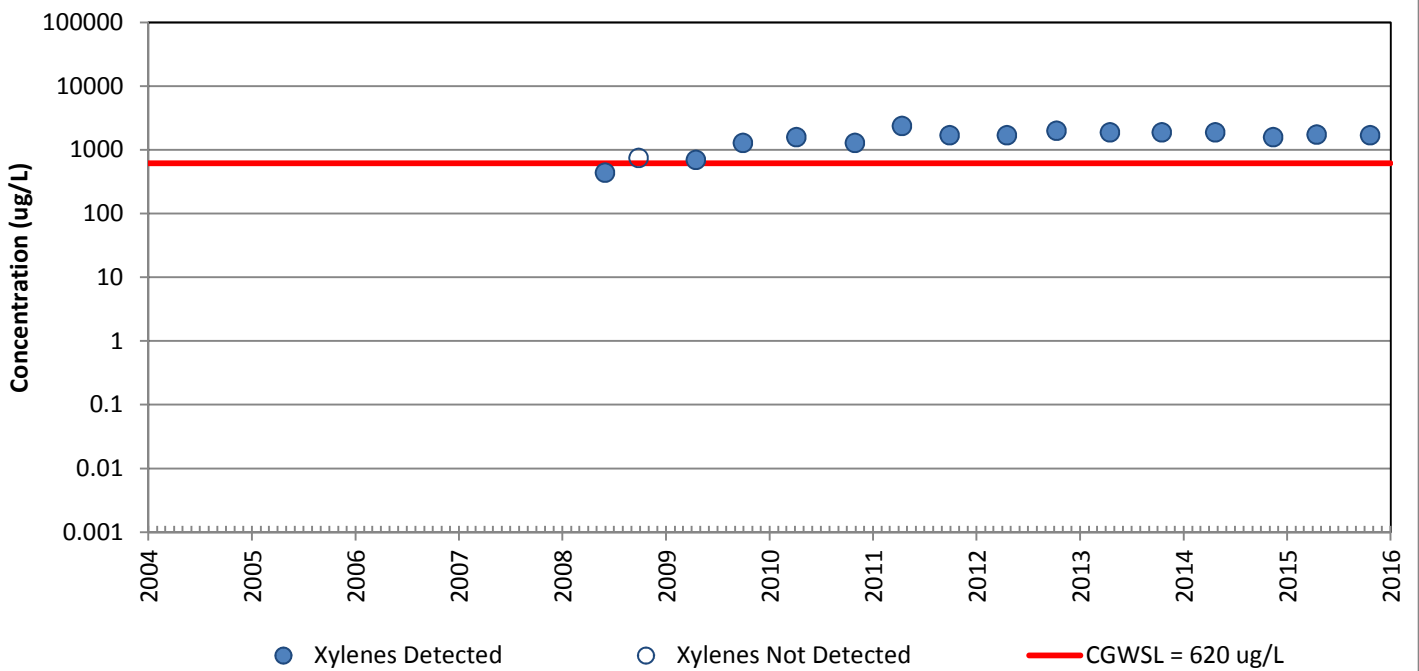


# MW-98

## Toluene

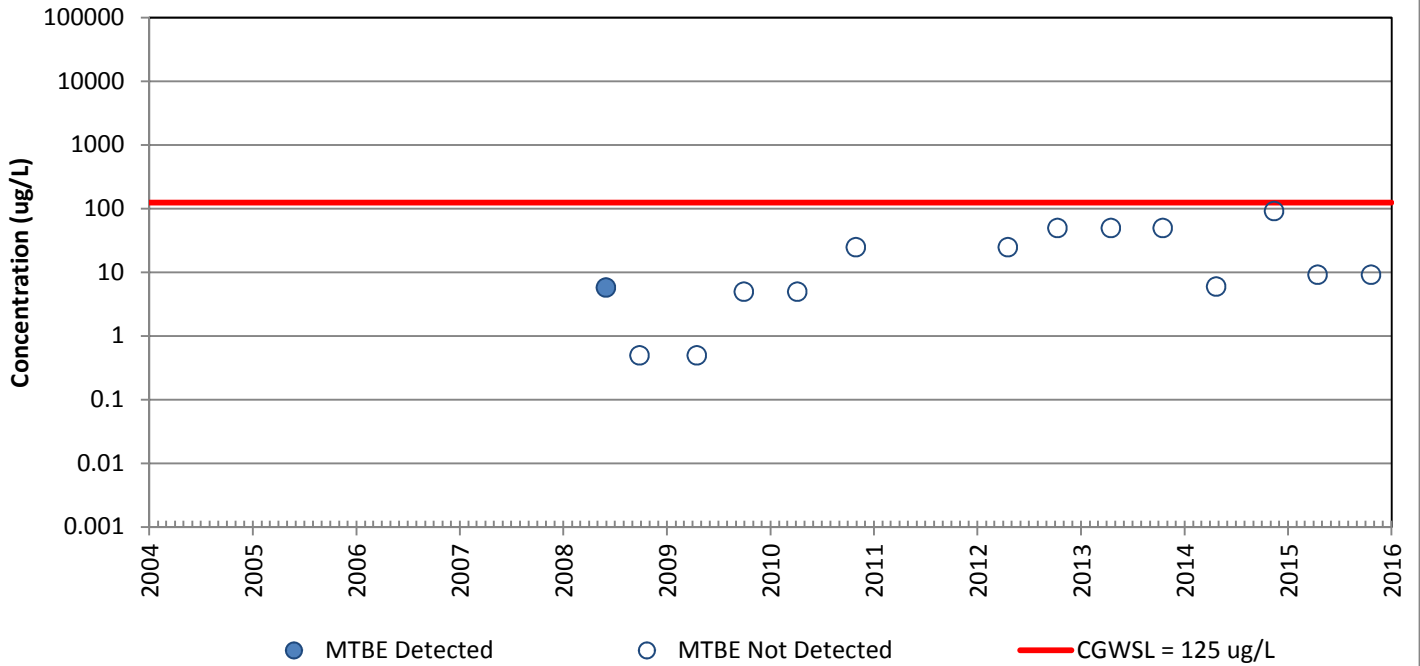


## Xylenes

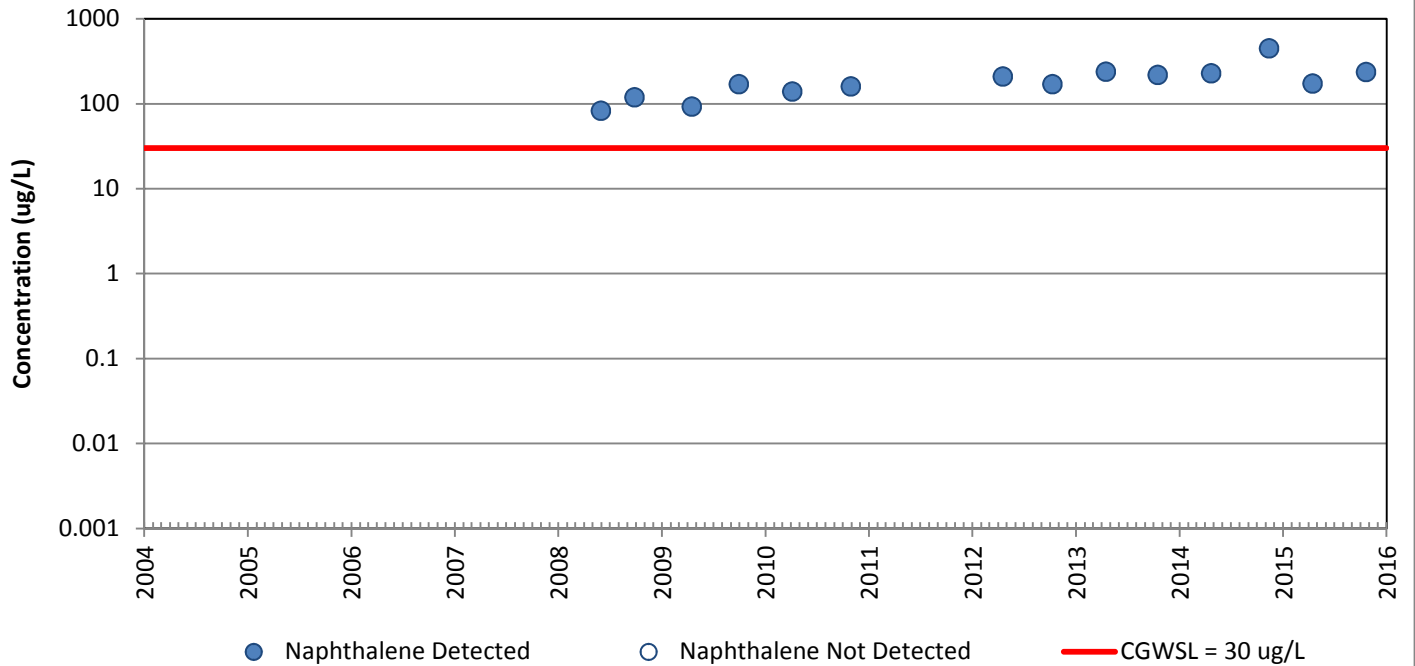


# MW-98

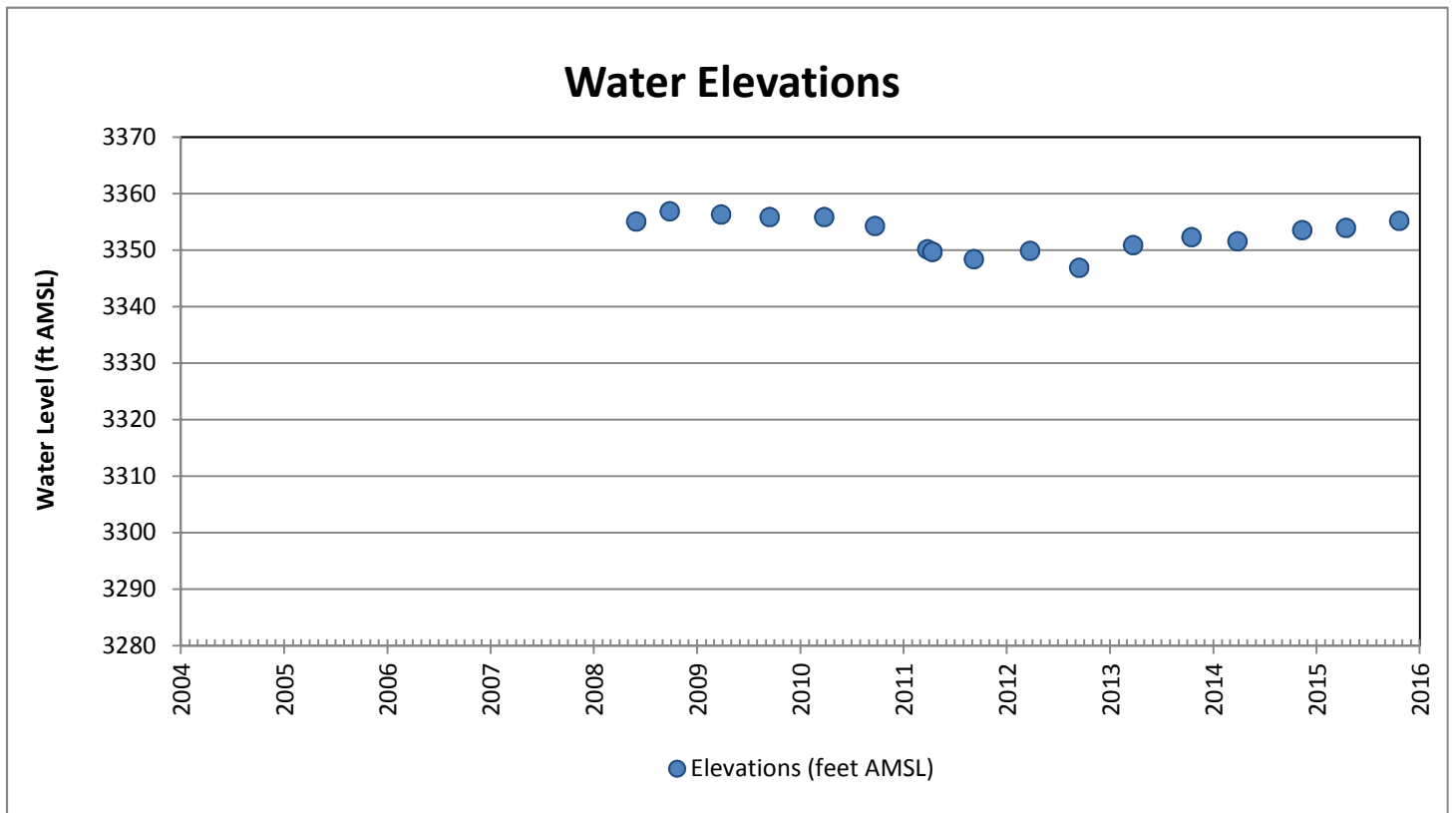
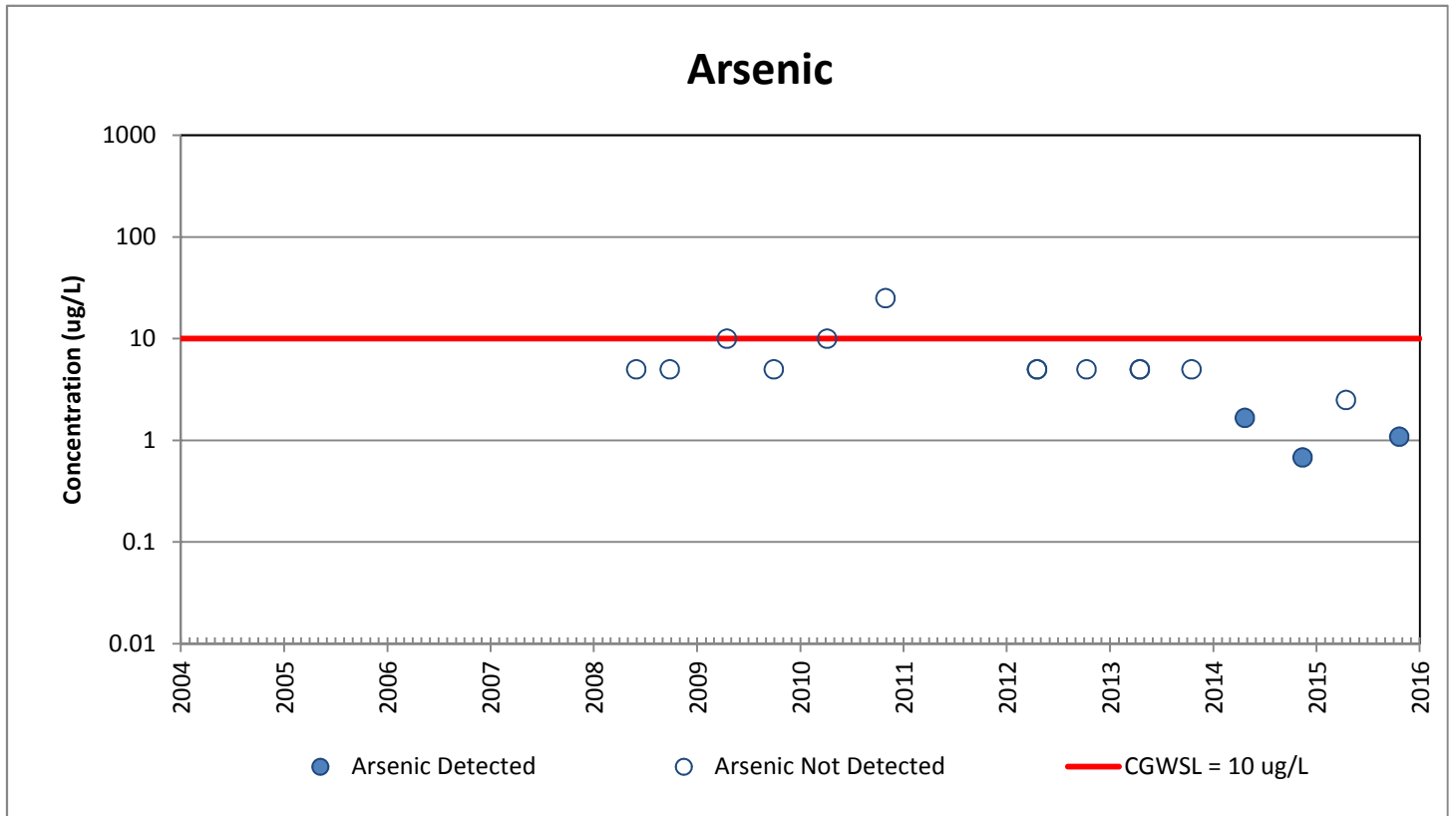
## MTBE



## Naphthalene

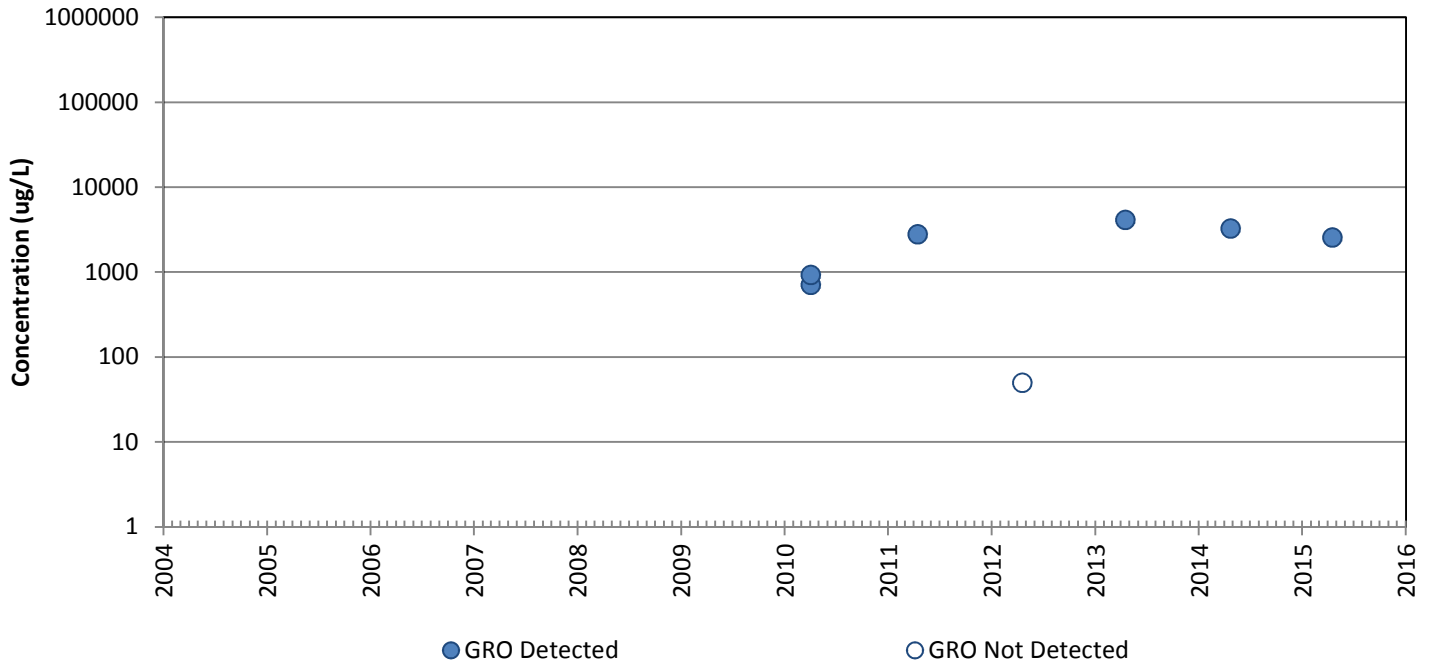


# MW-98

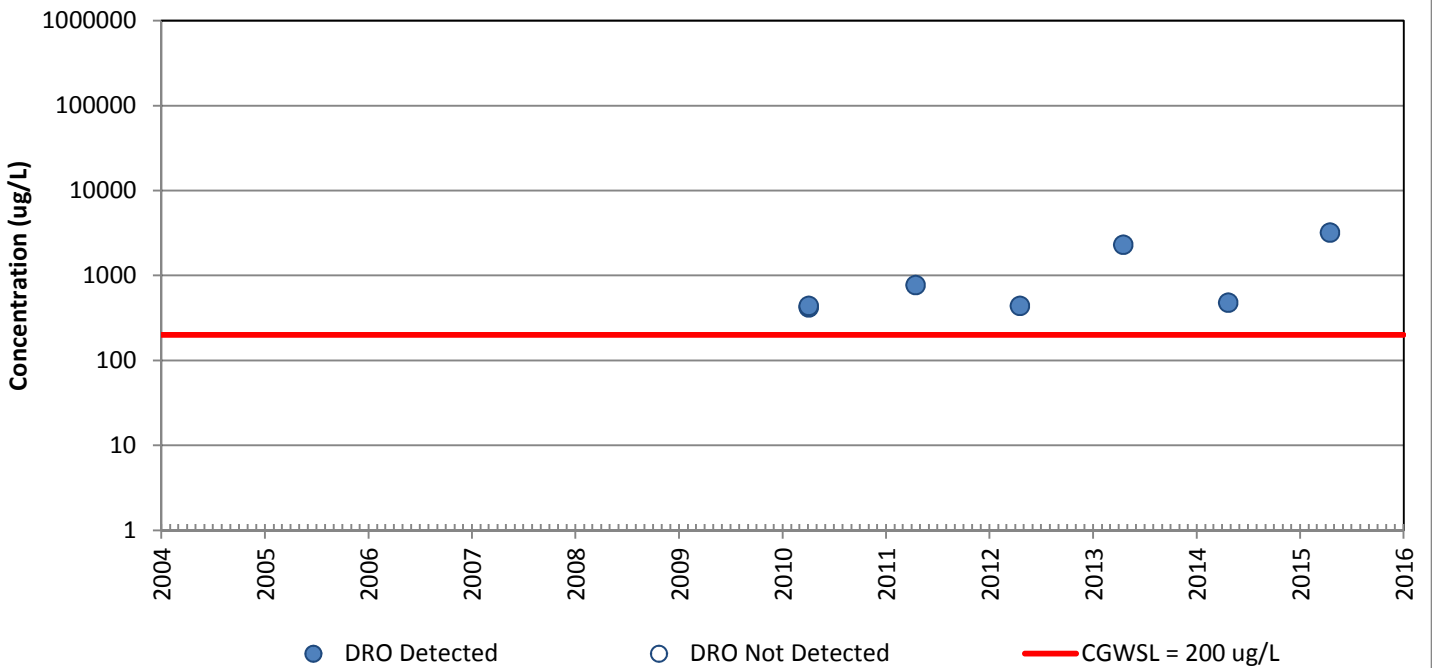


# RW-9

## GRO

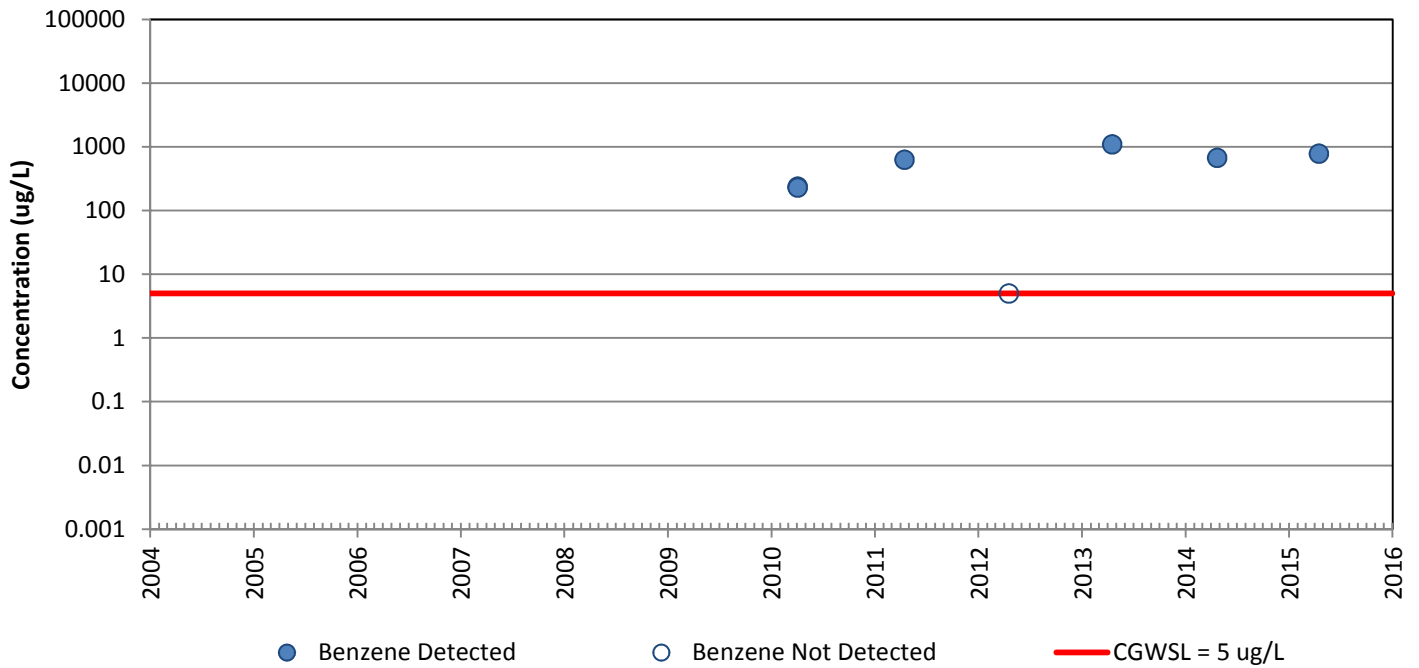


## DRO

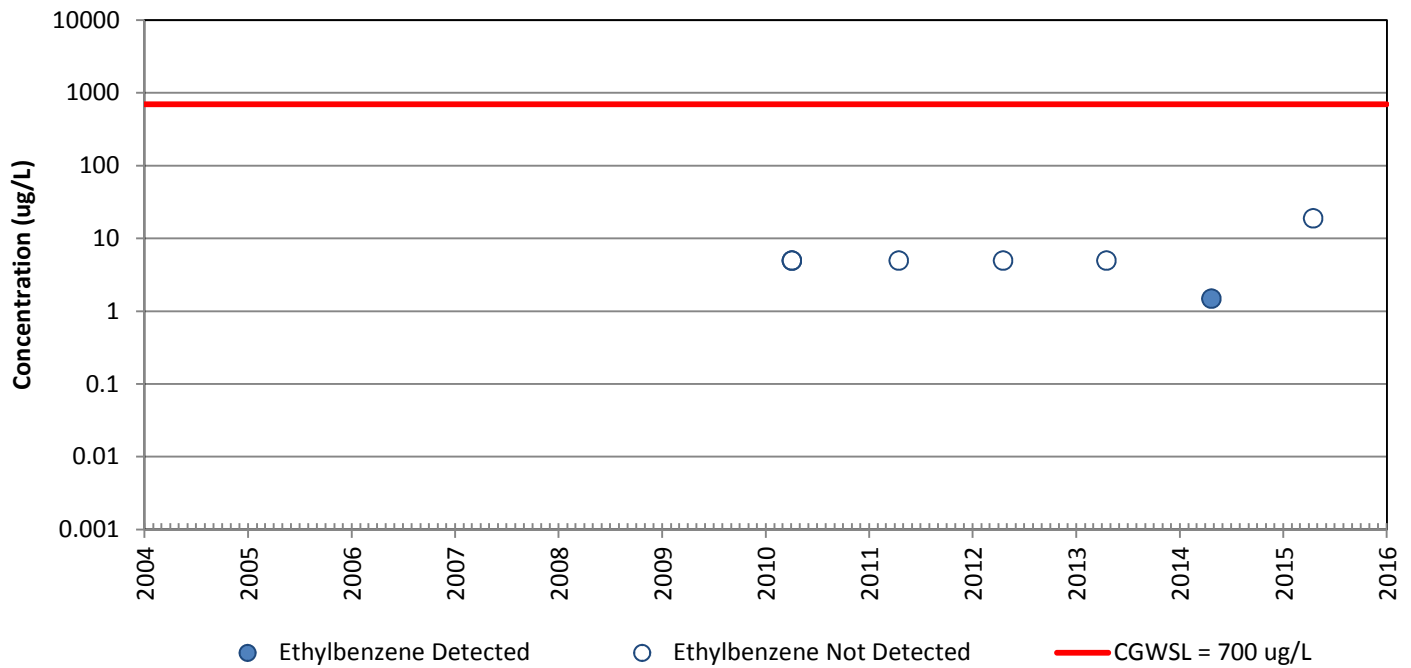


# RW-9

## Benzene

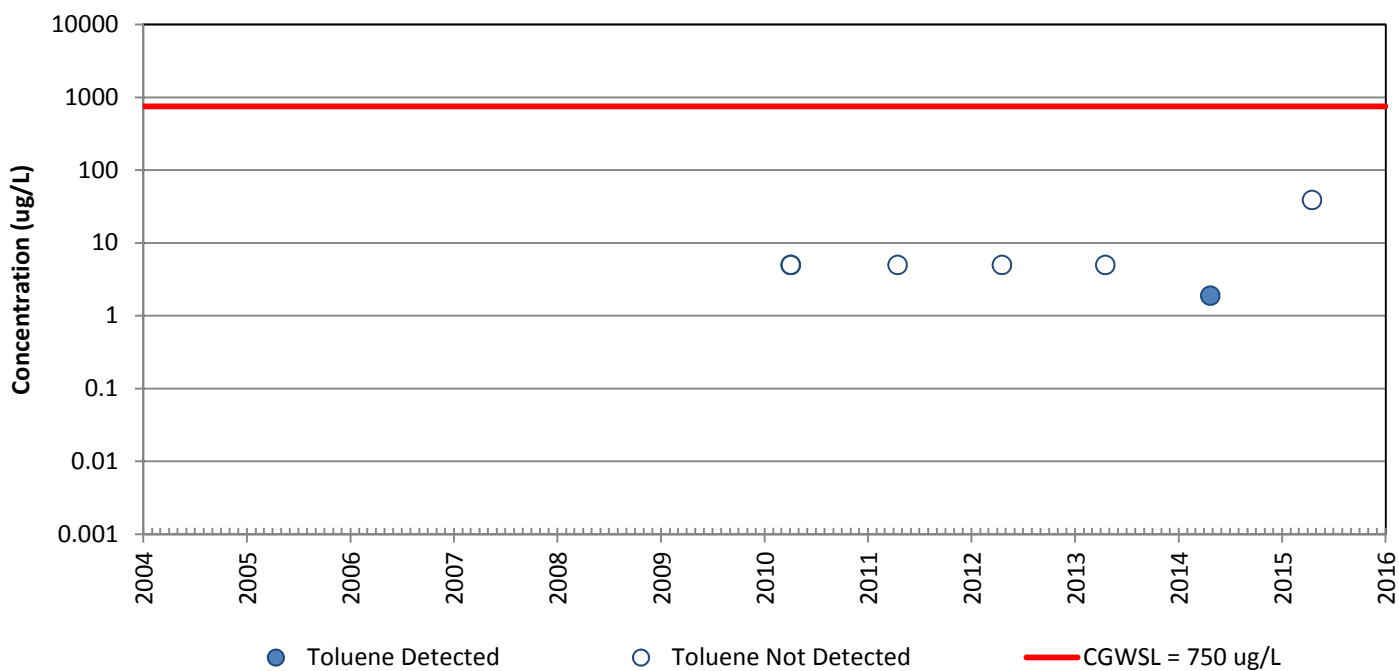


## Ethylbenzene

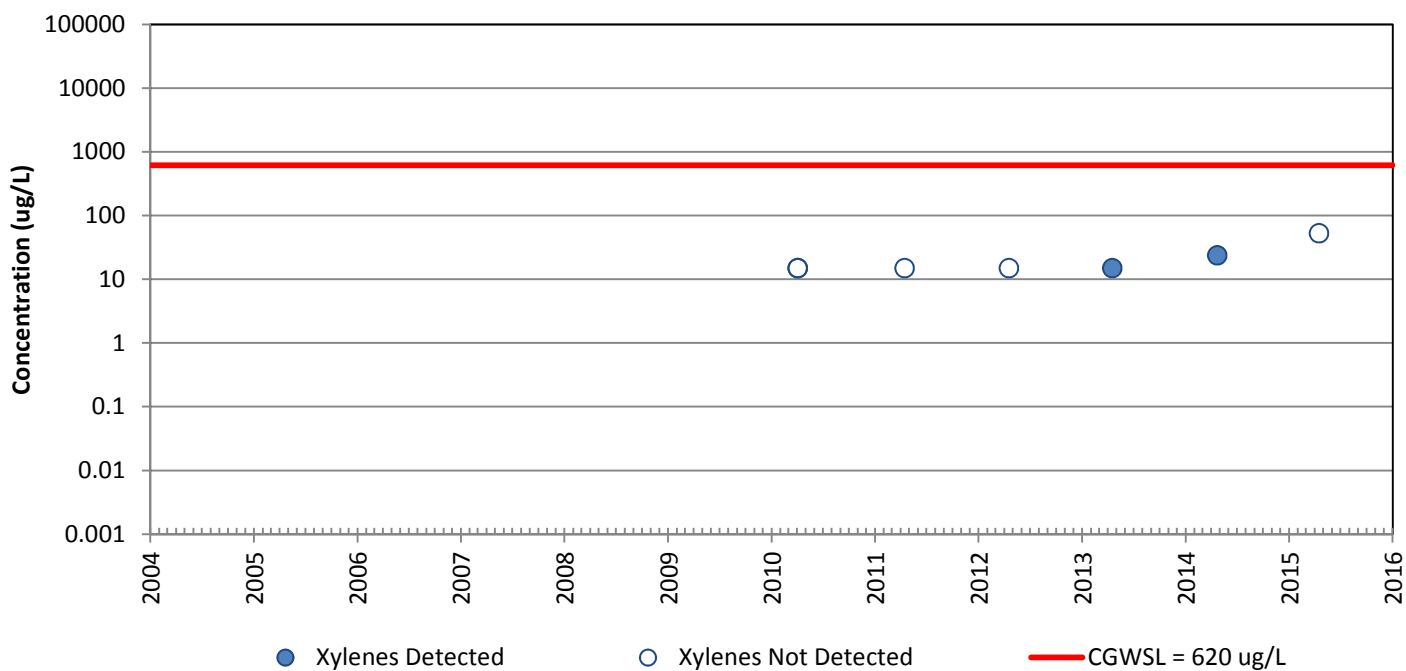


# RW-9

## Toluene

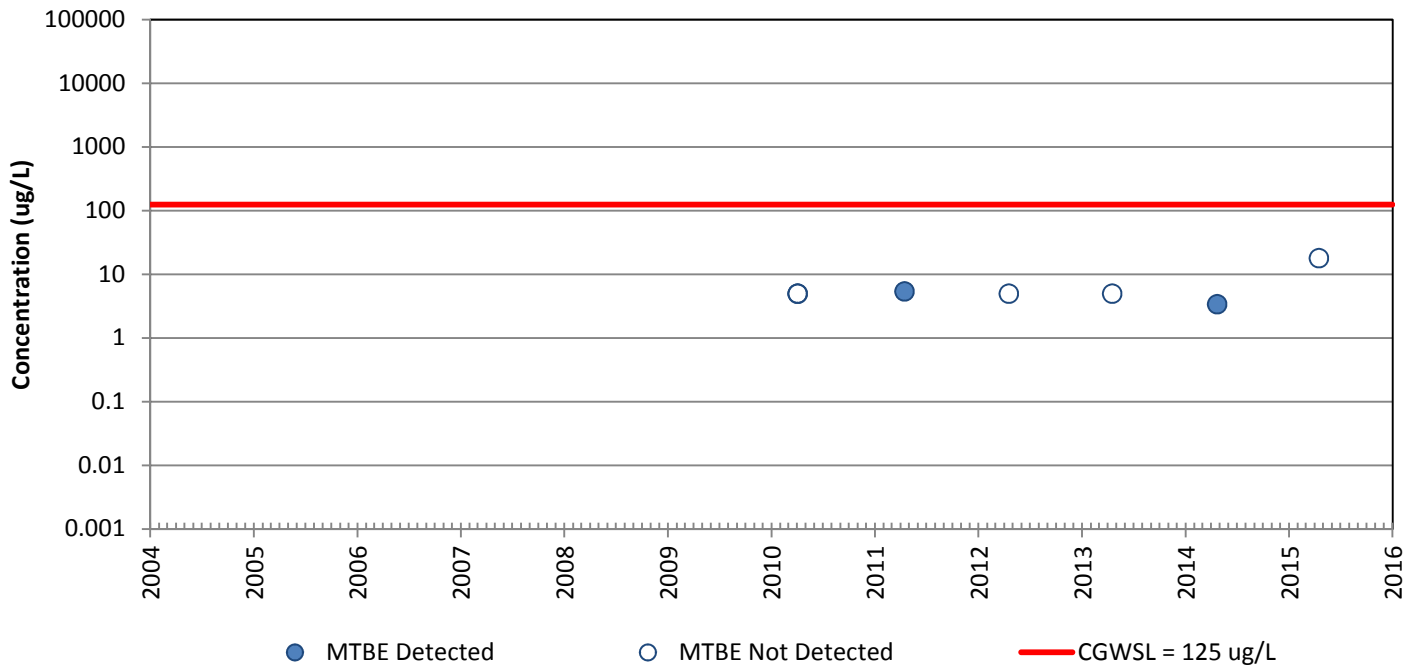


## Xylenes

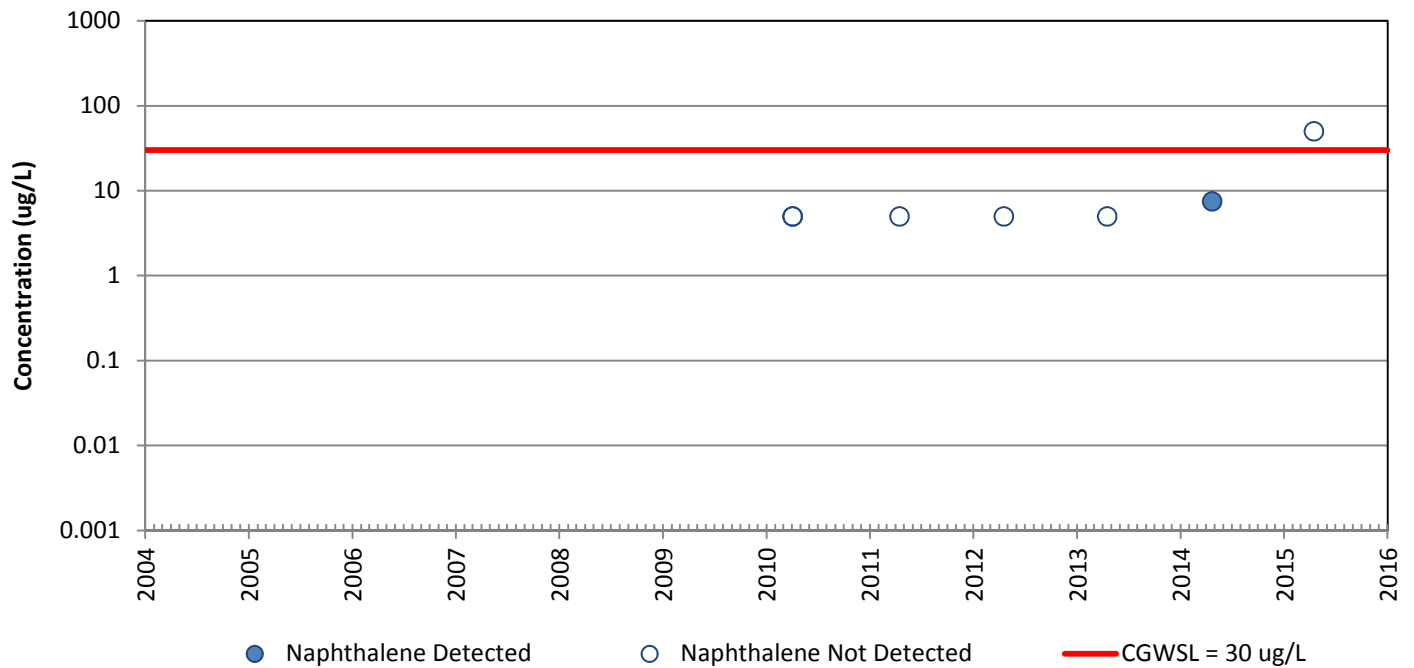


# RW-9

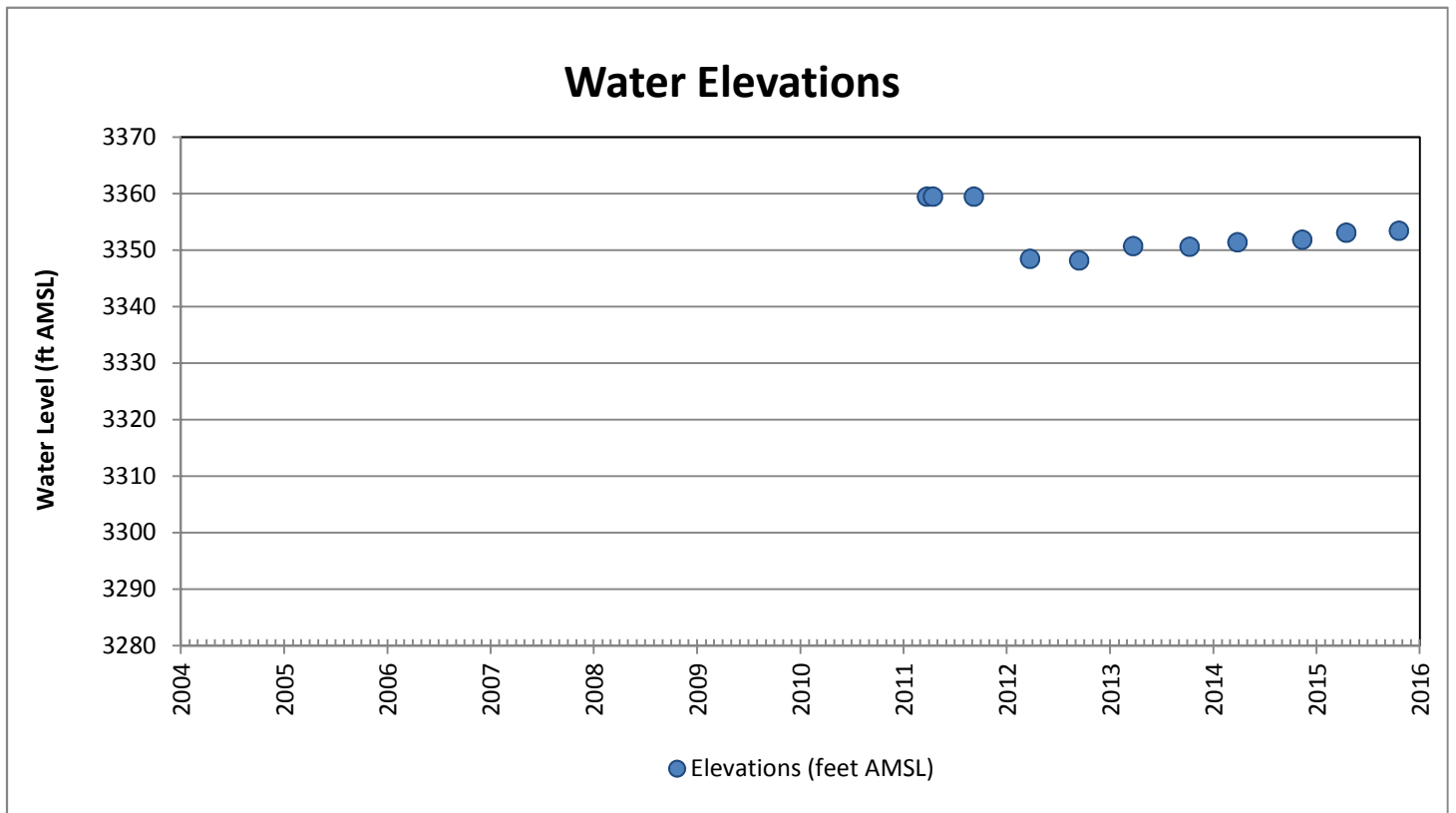
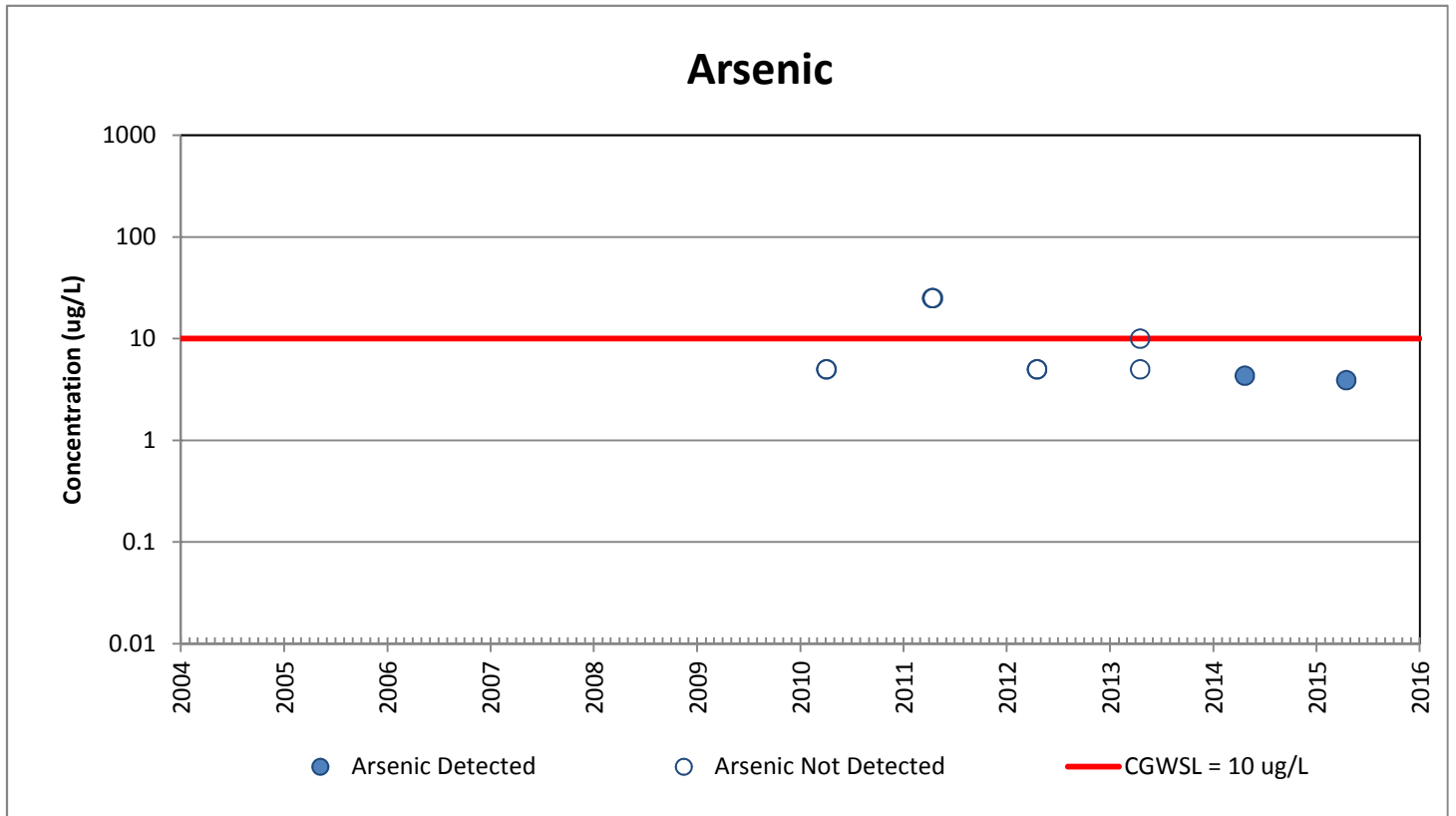
## MTBE



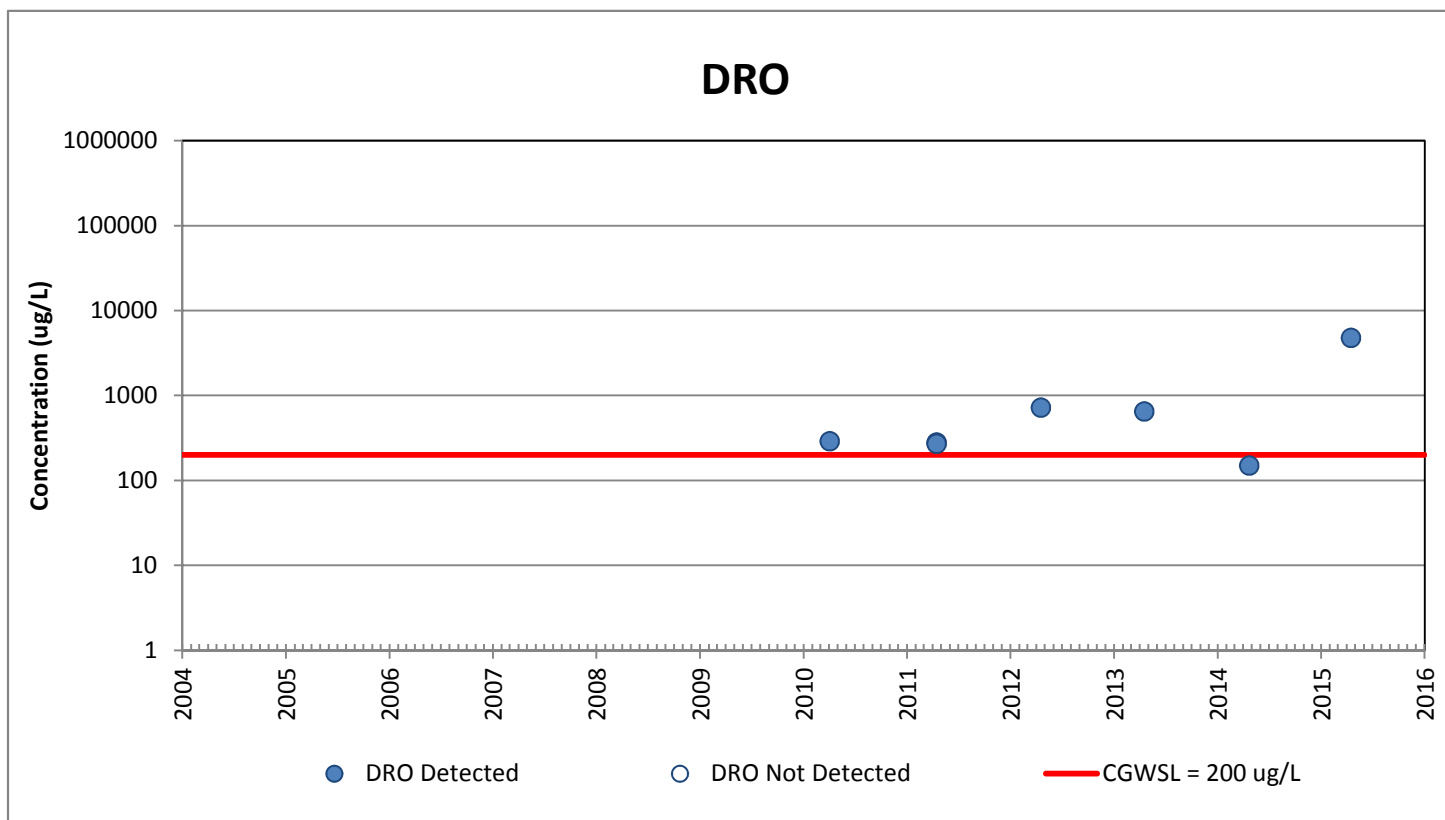
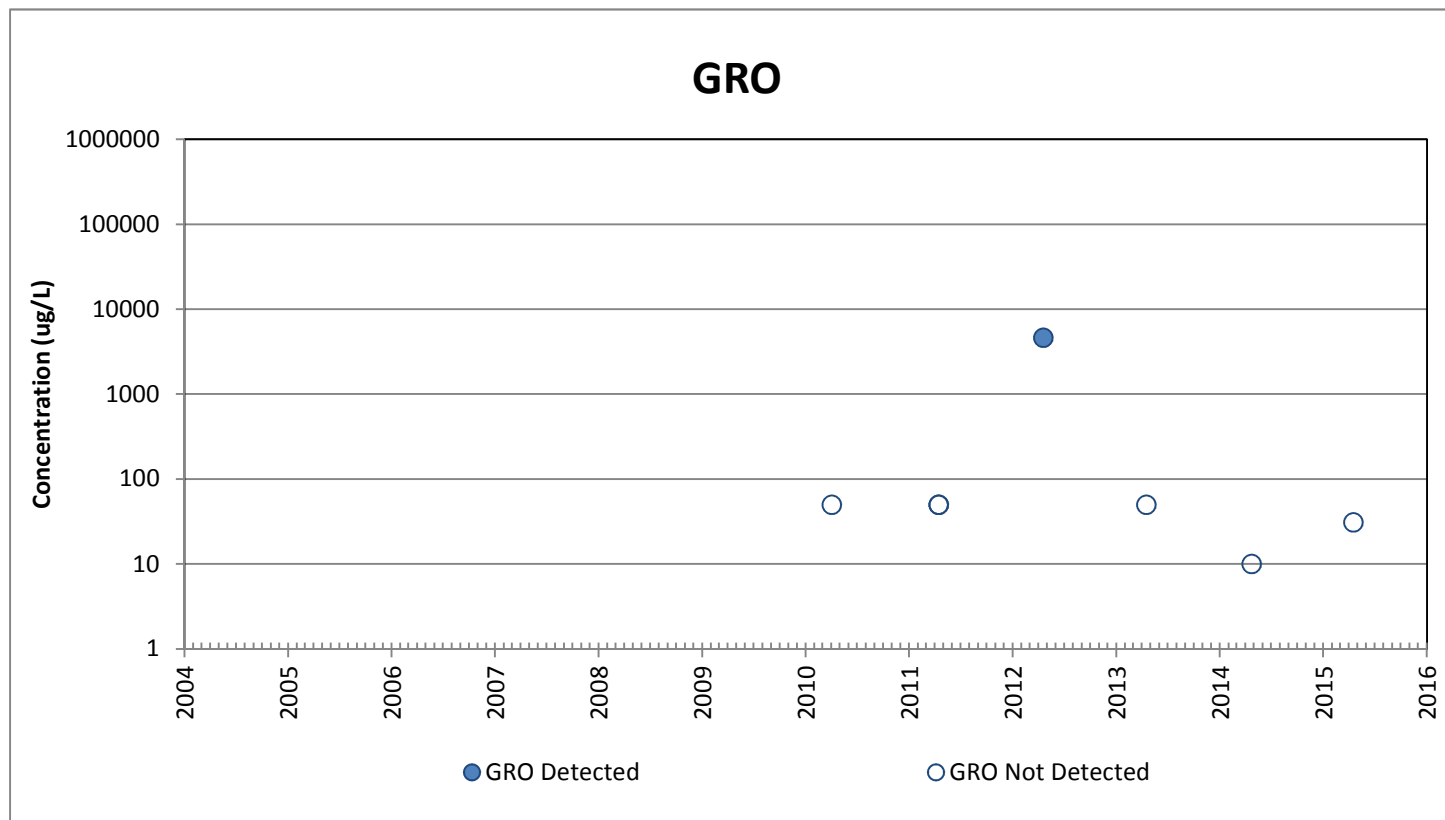
## Naphthalene



# RW-9

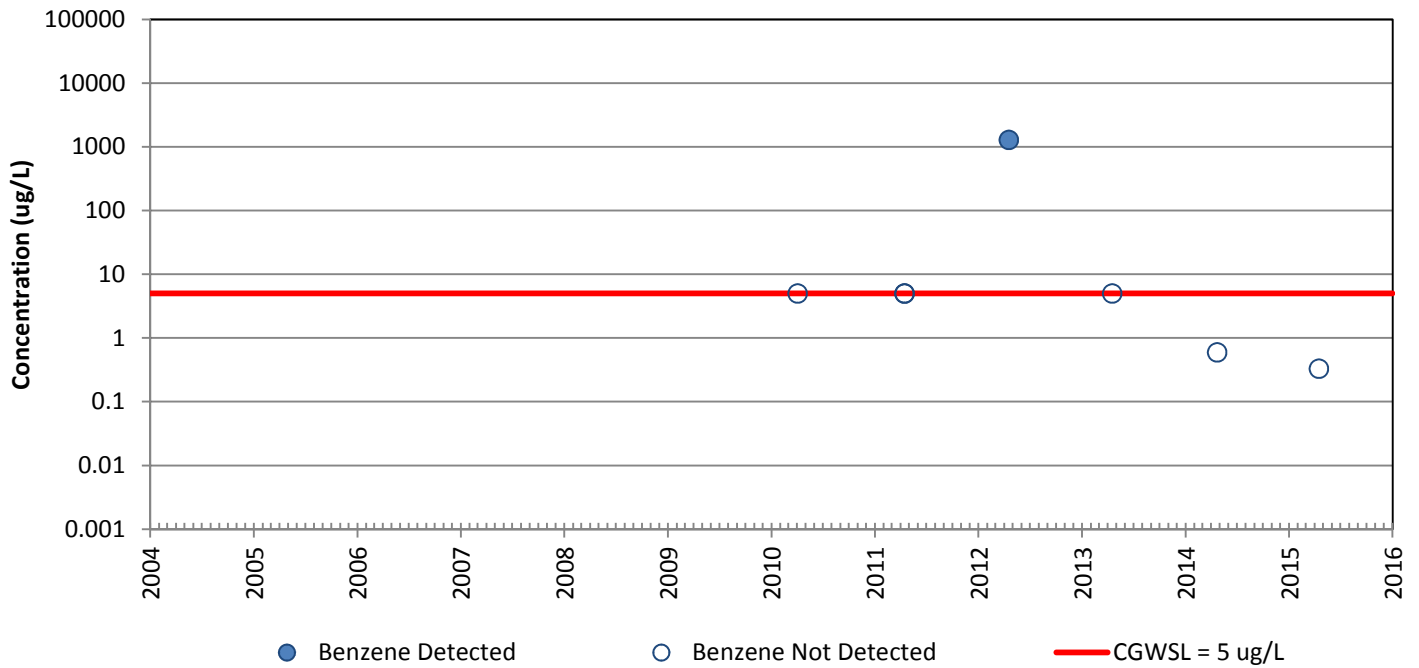


# RW-10

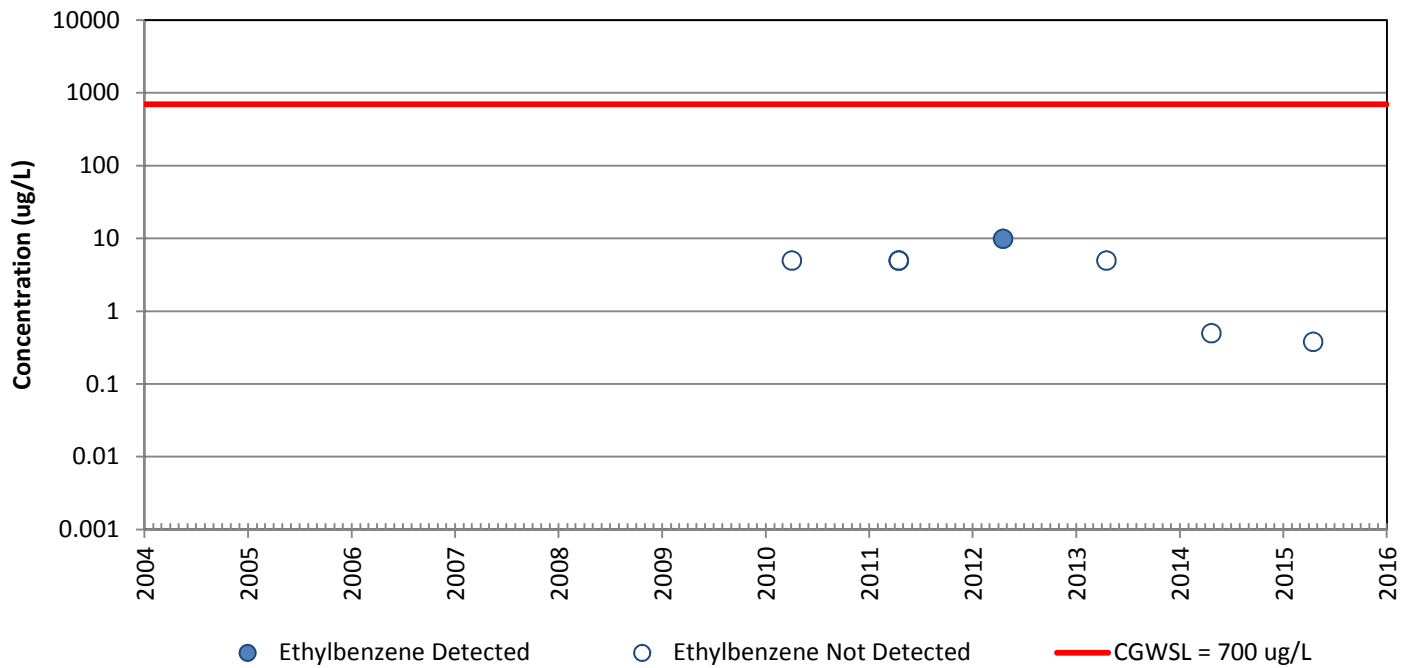


# RW-10

## Benzene

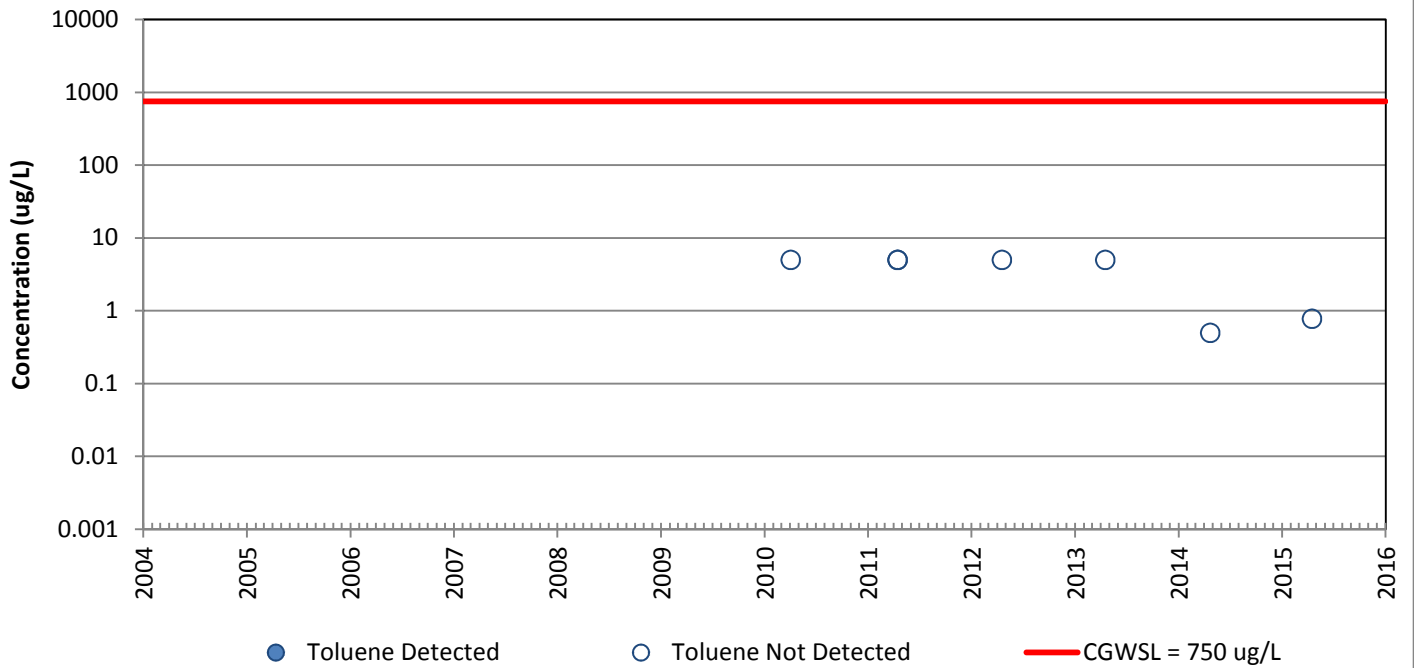


## Ethylbenzene

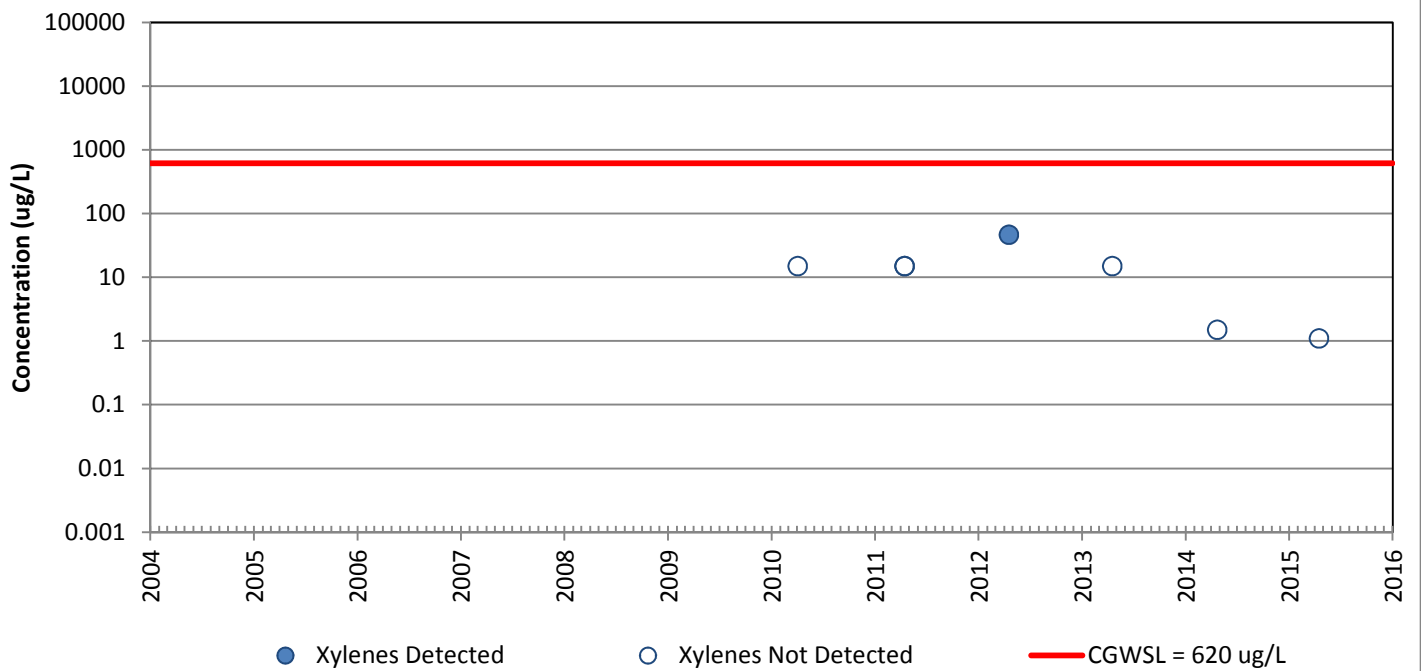


# RW-10

## Toluene

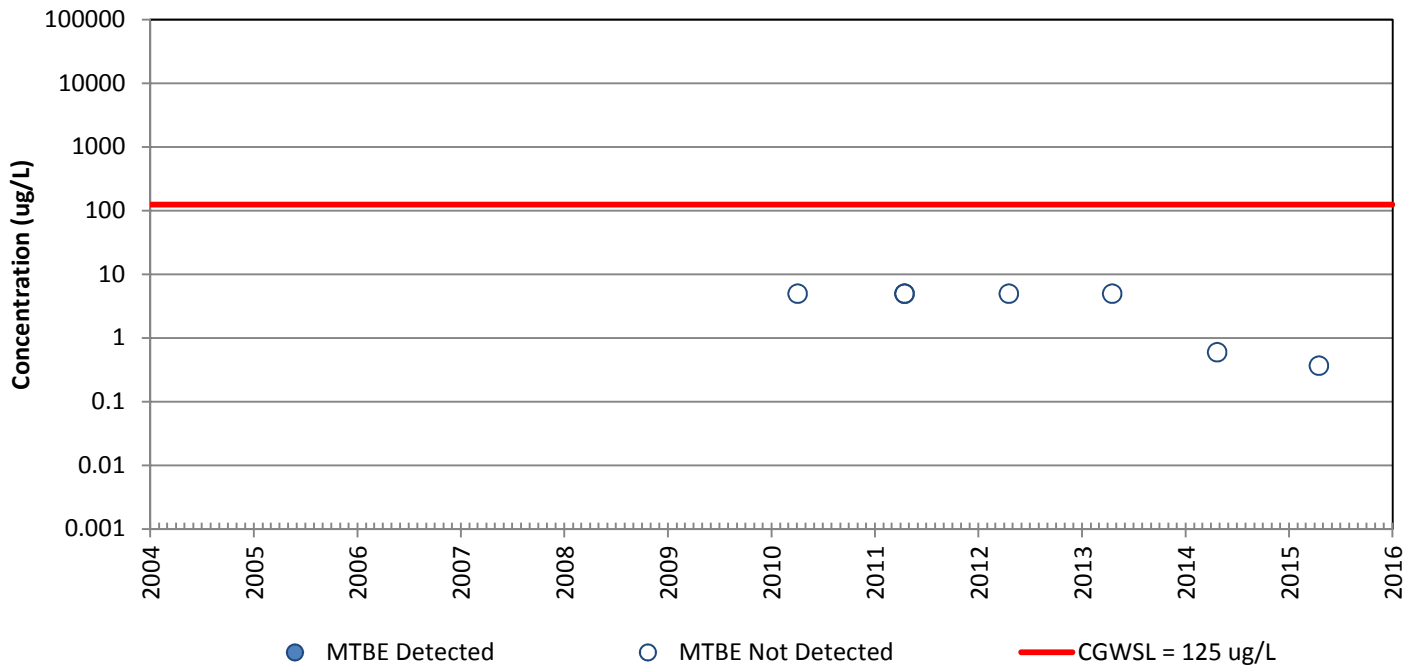


## Xylenes

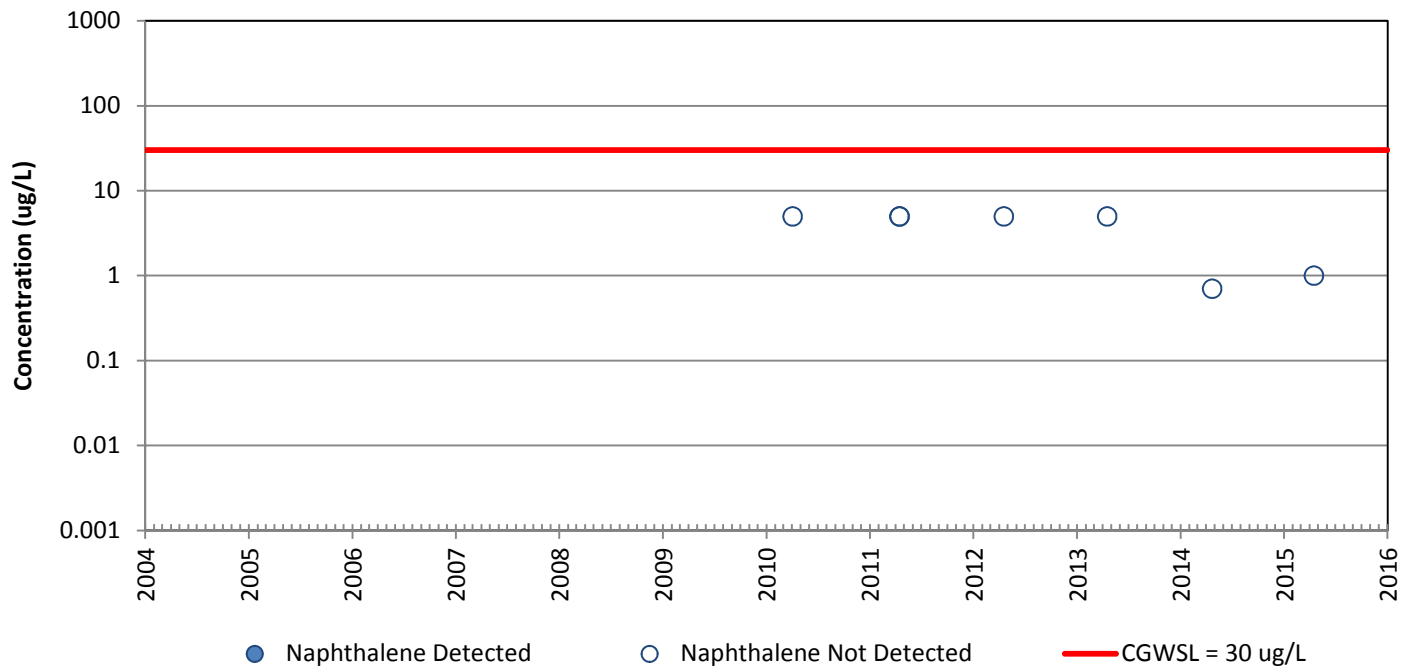


# RW-10

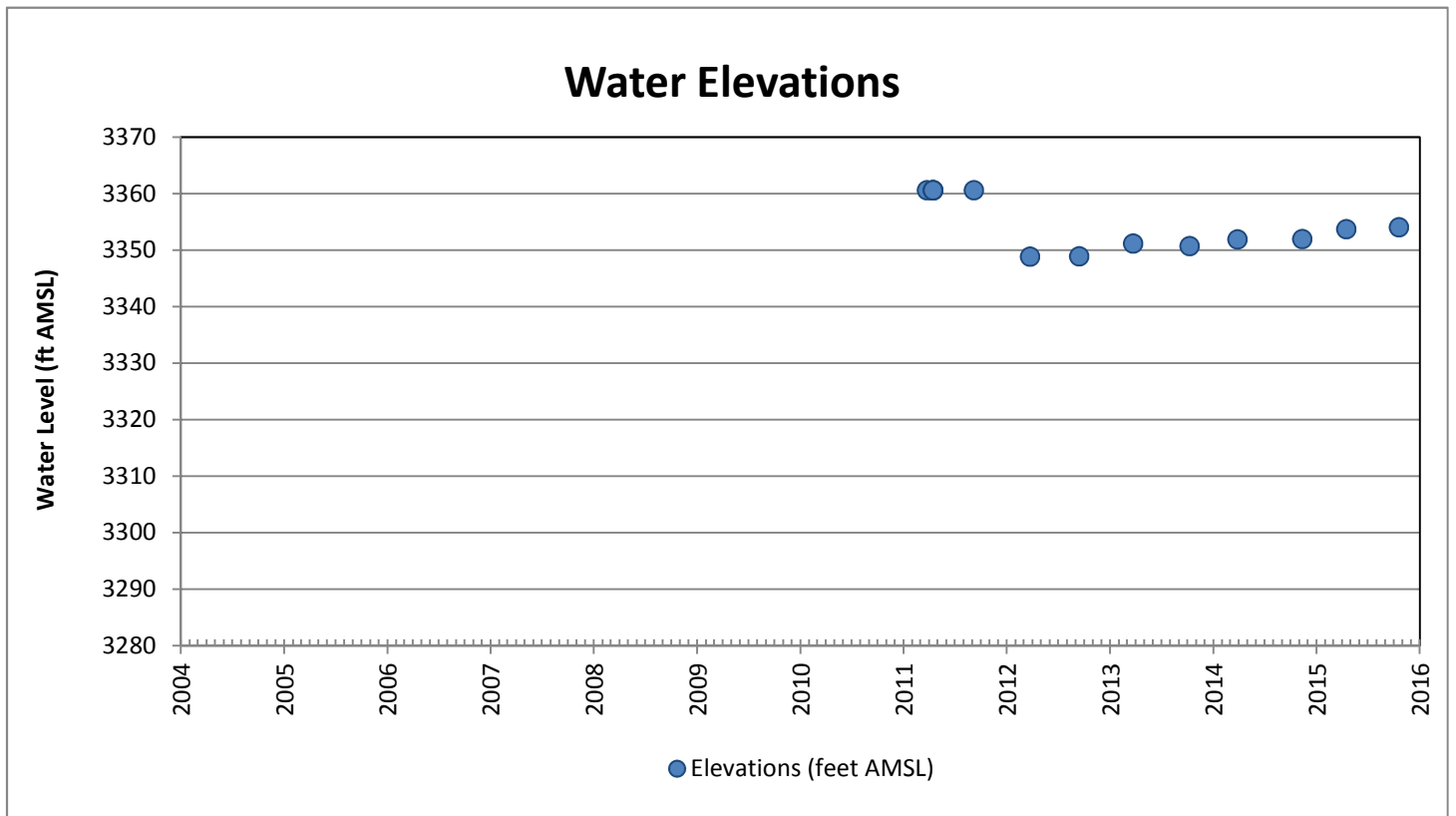
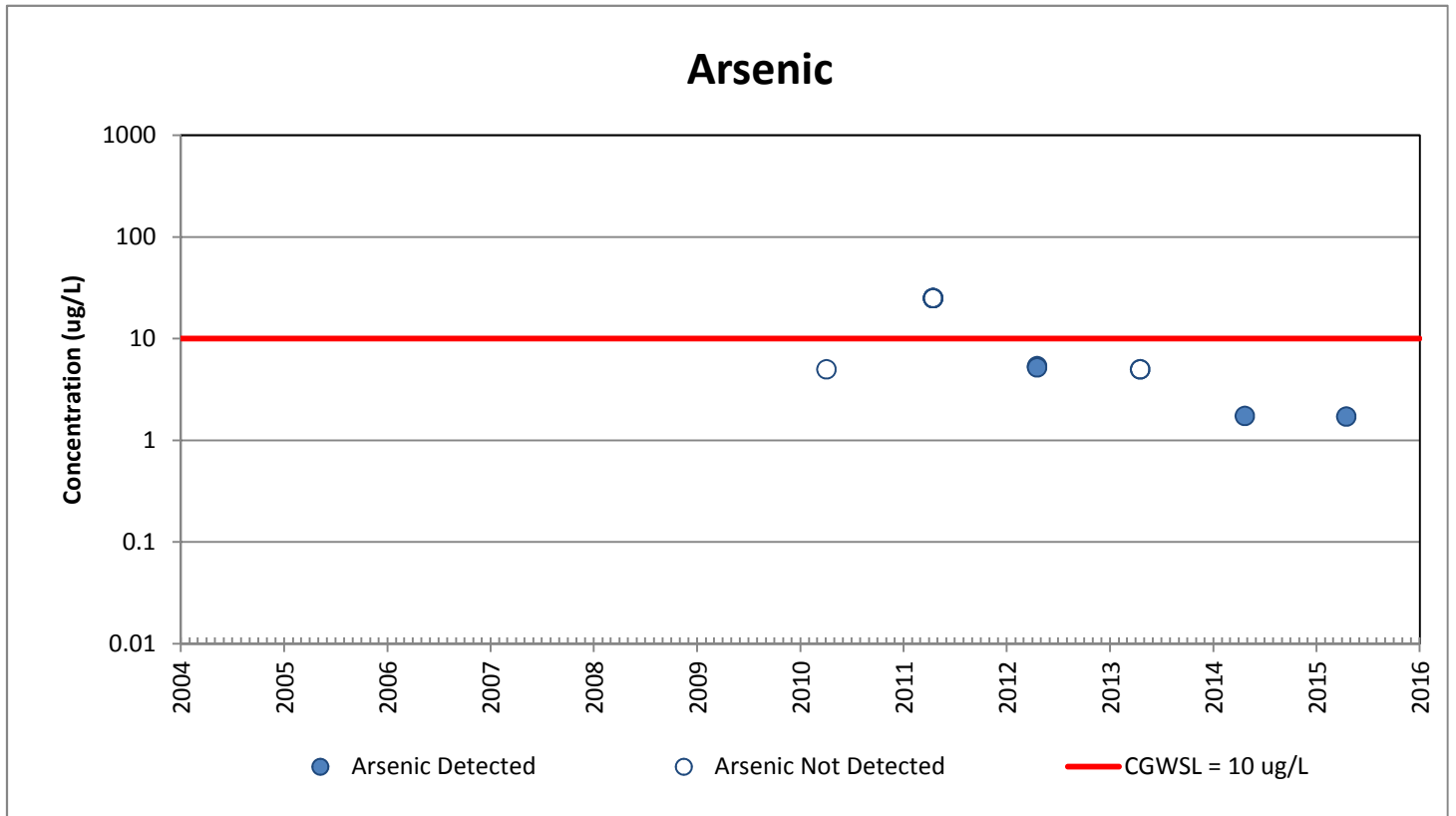
## MTBE



## Naphthalene

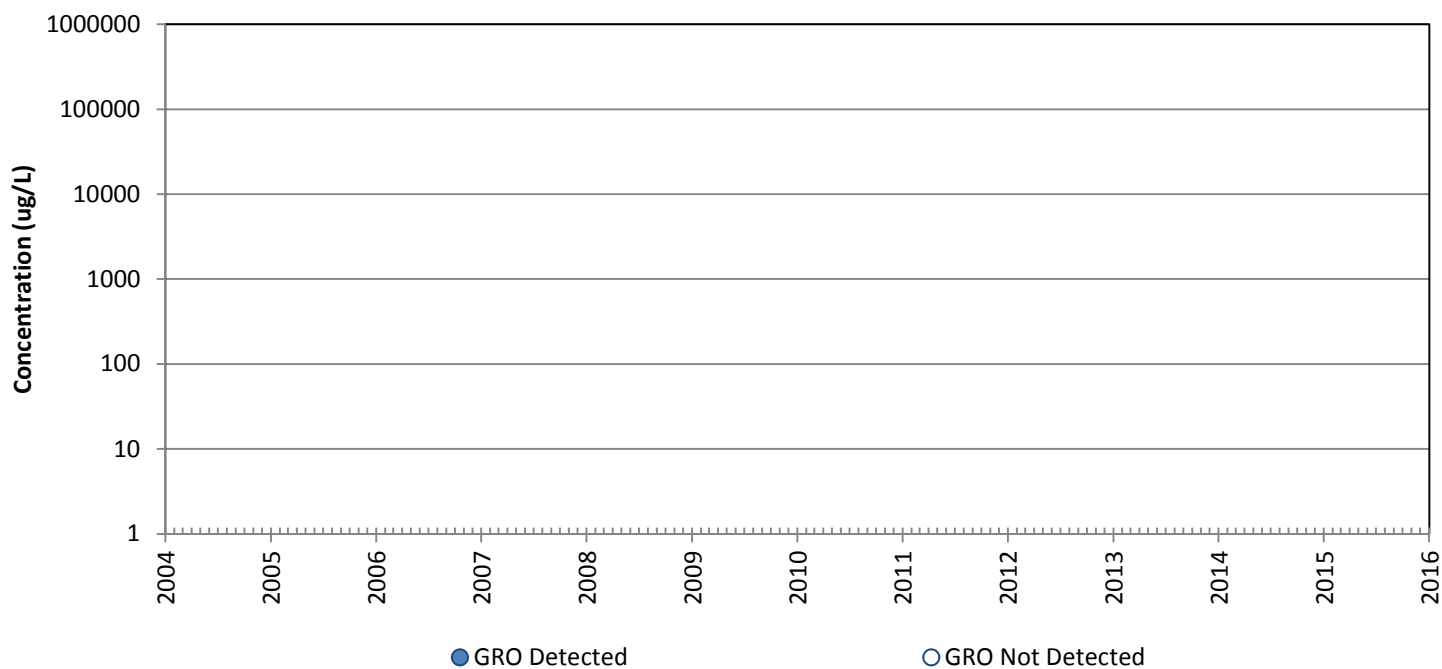


# RW-10

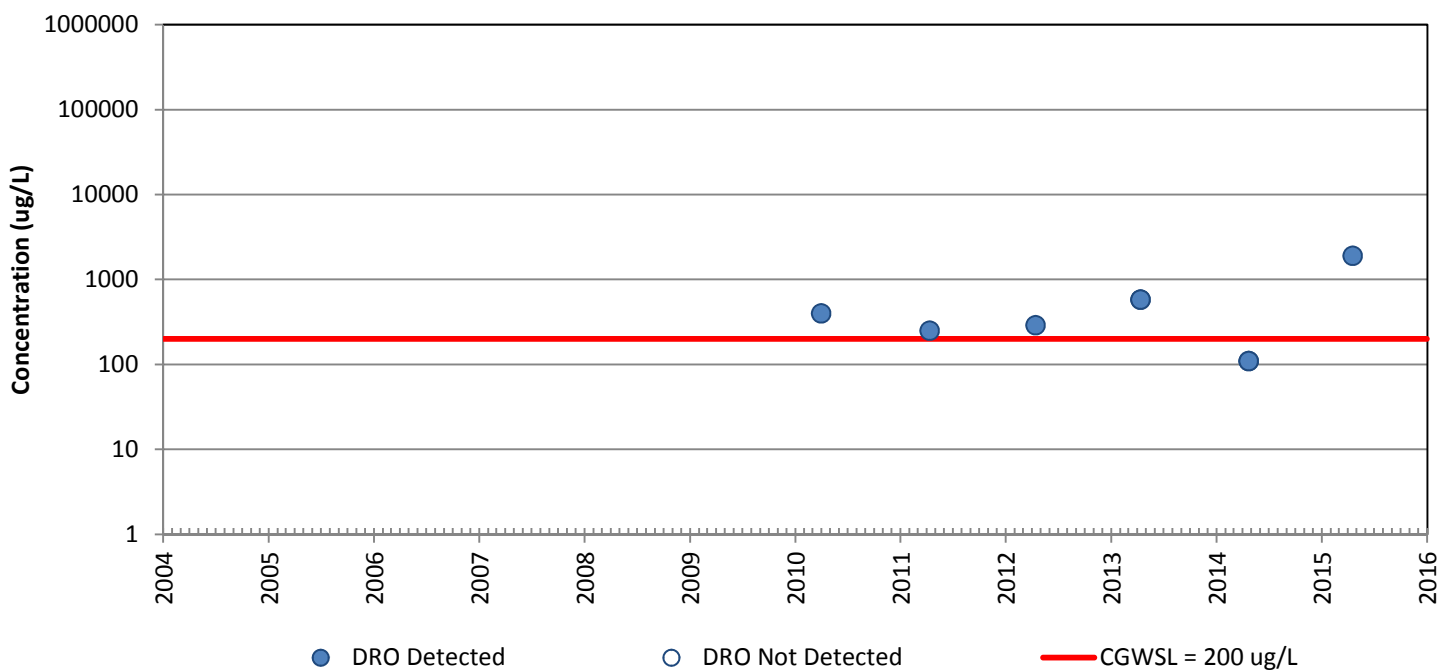


# RW-16

## GRO



## DRO

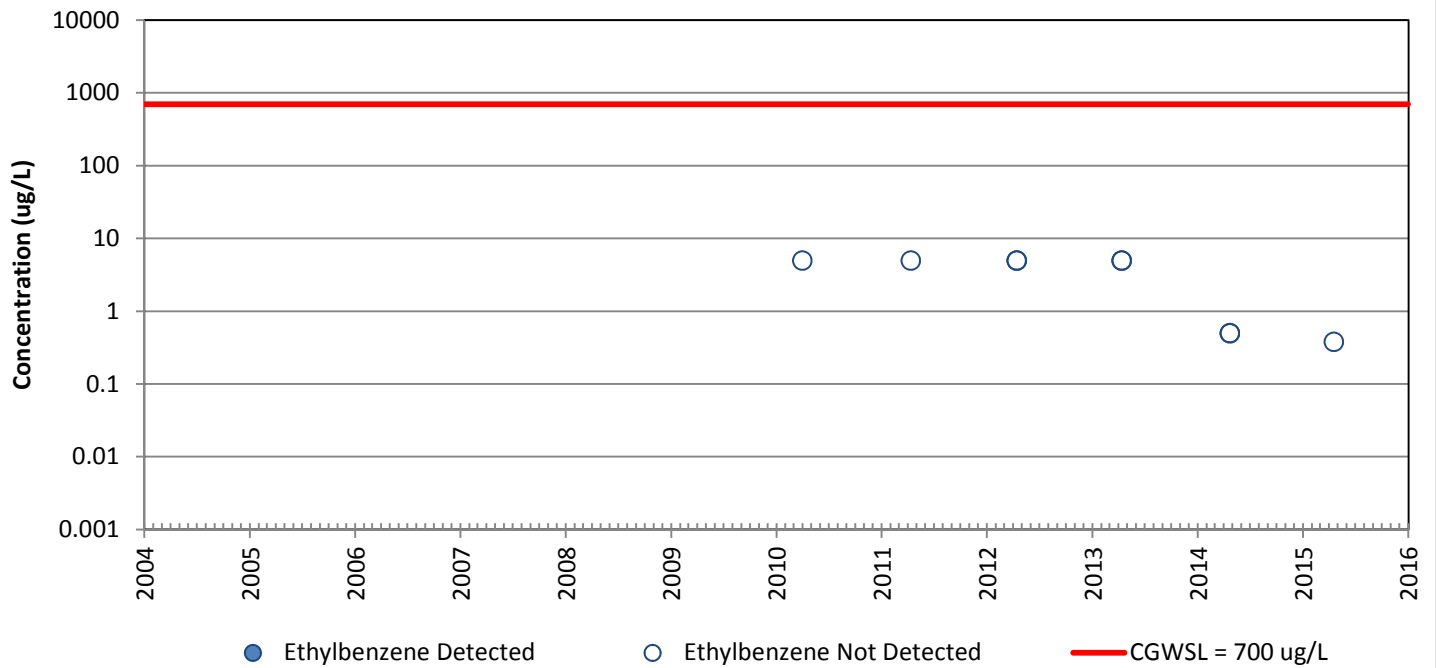


# RW-16

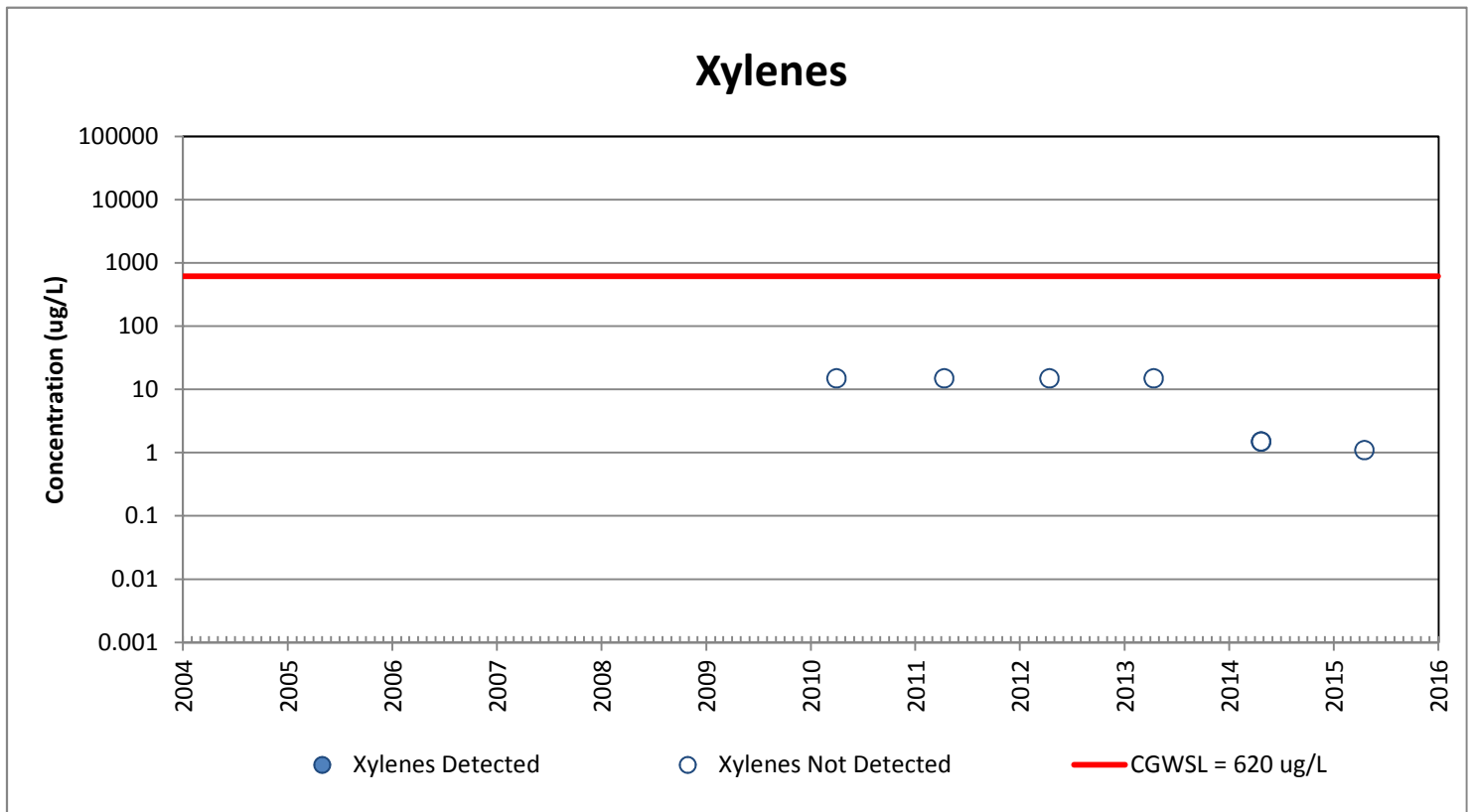
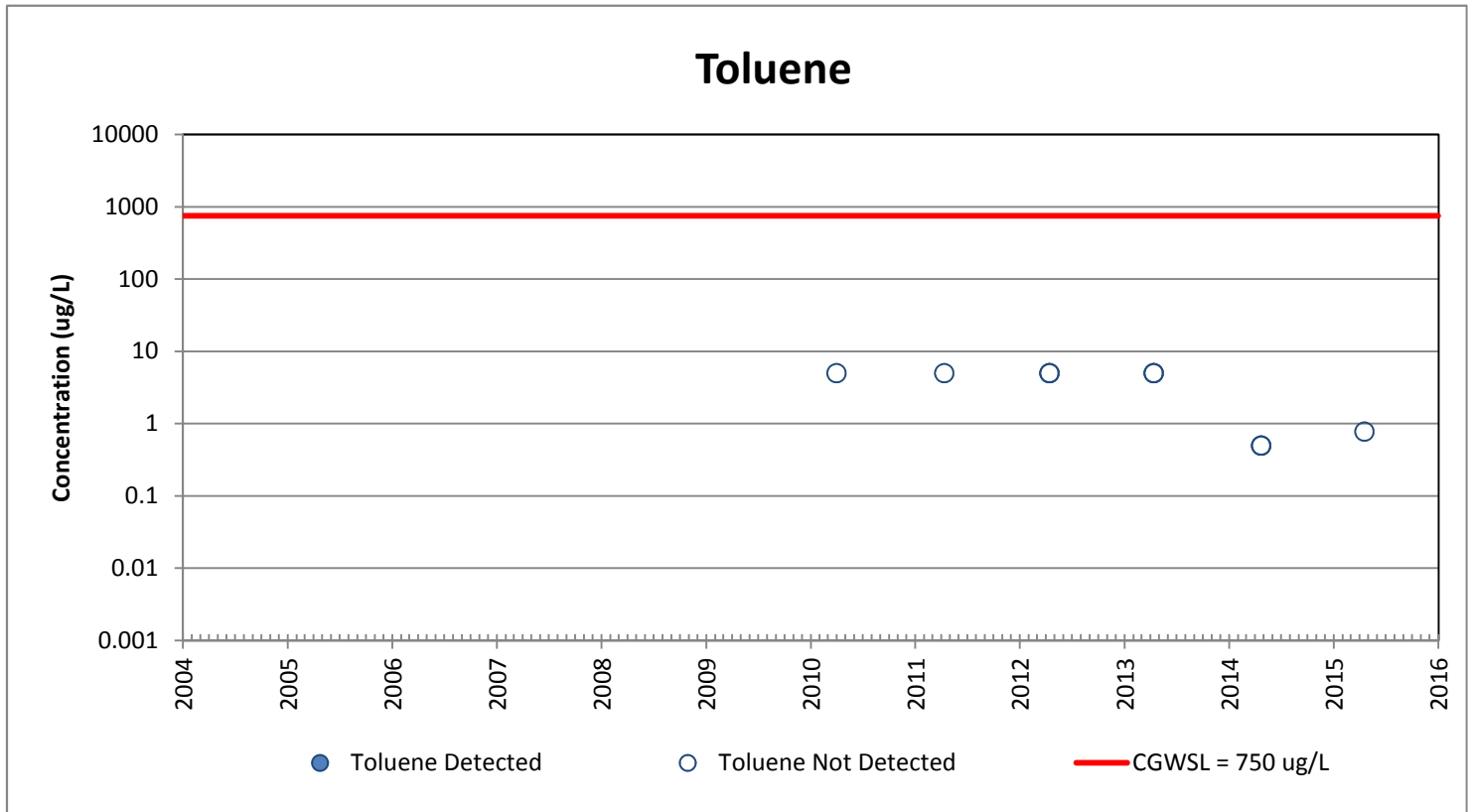
## Benzene



## Ethylbenzene

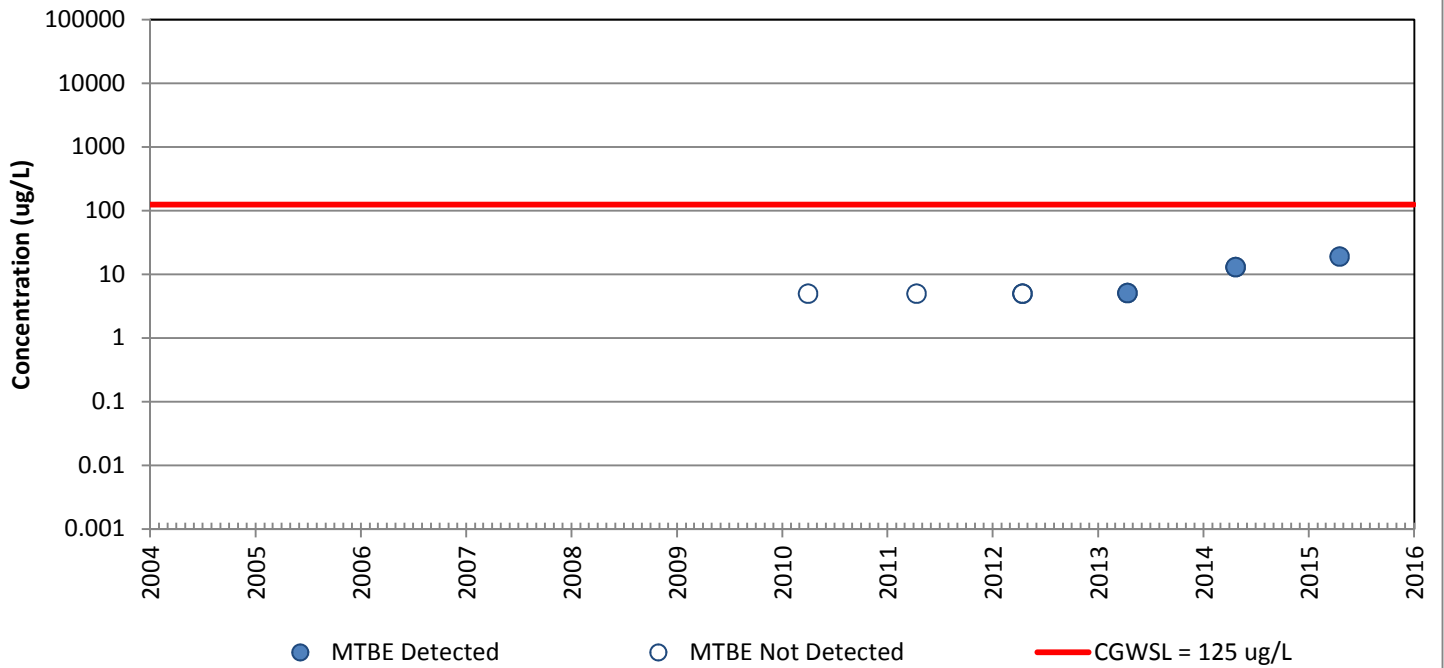


# RW-16

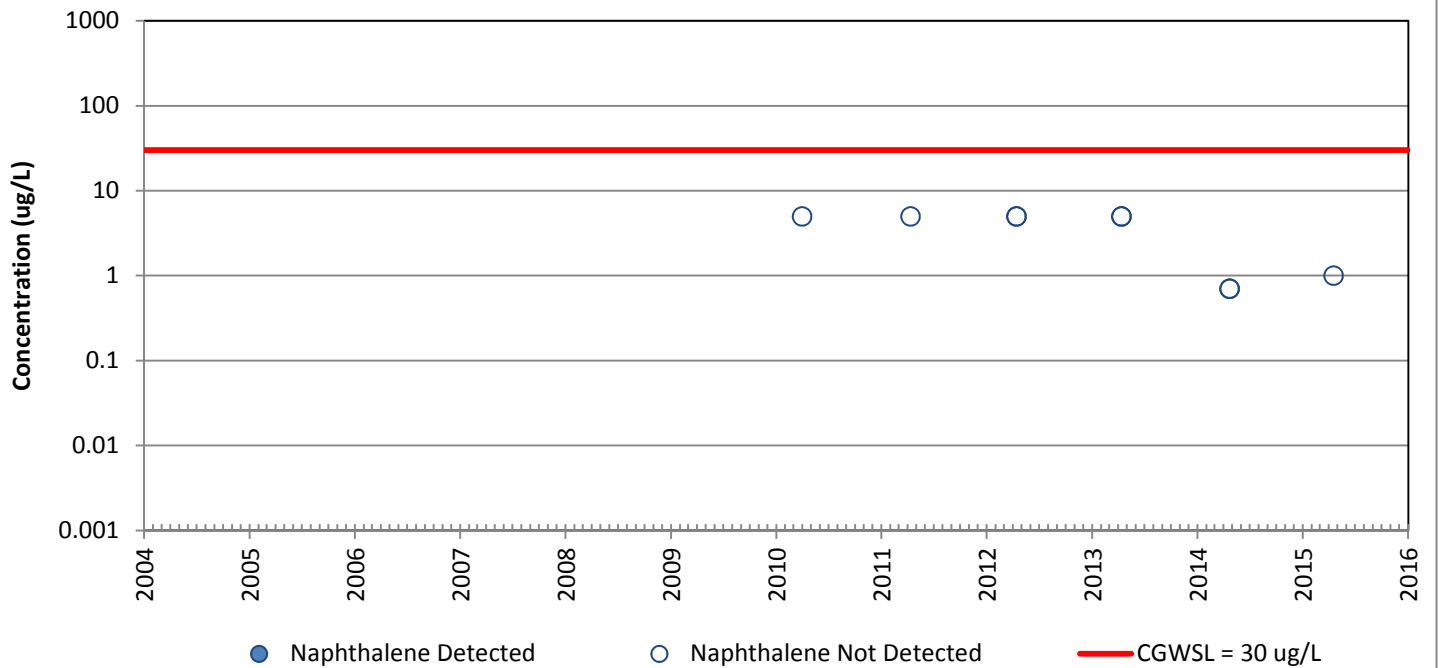


# RW-16

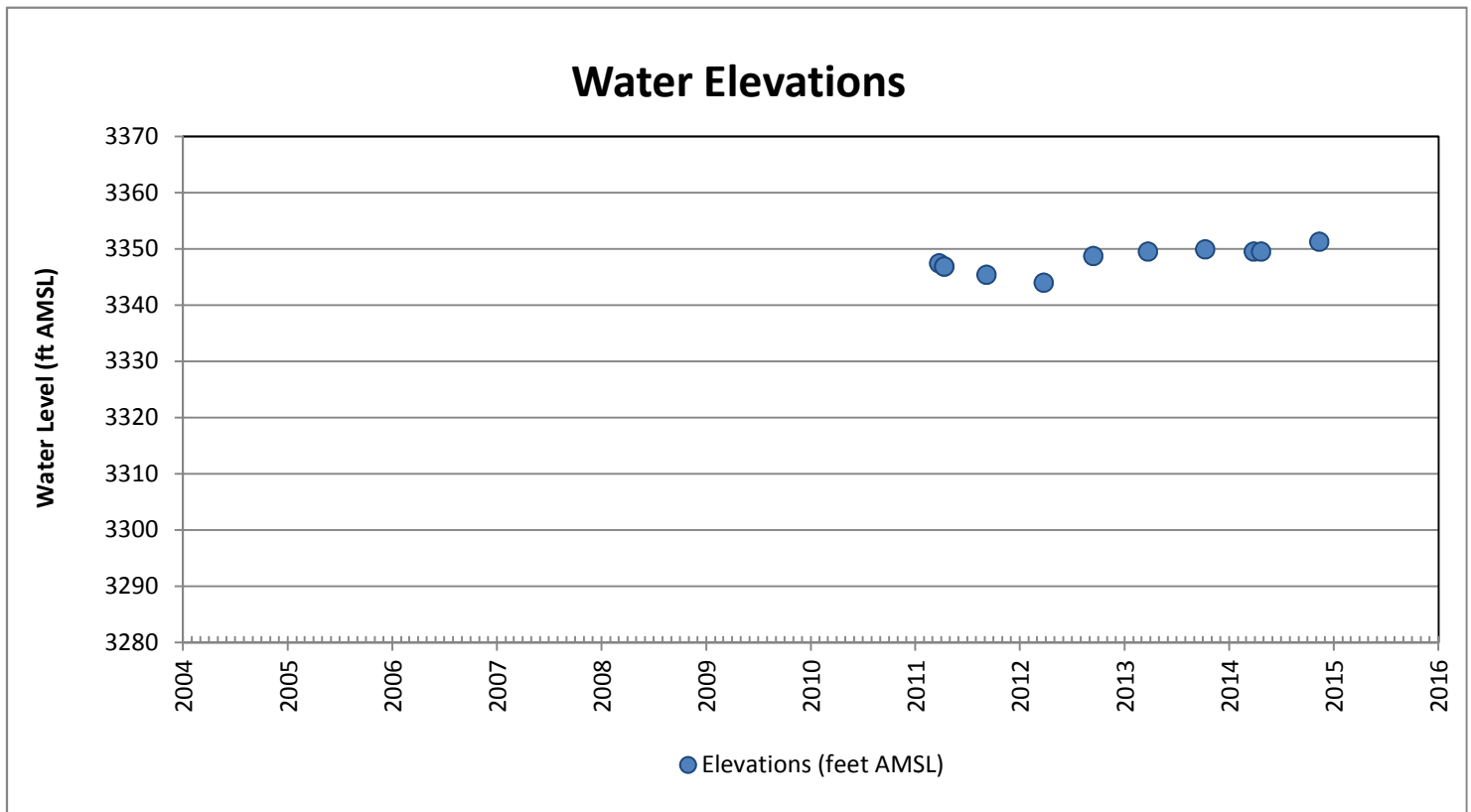
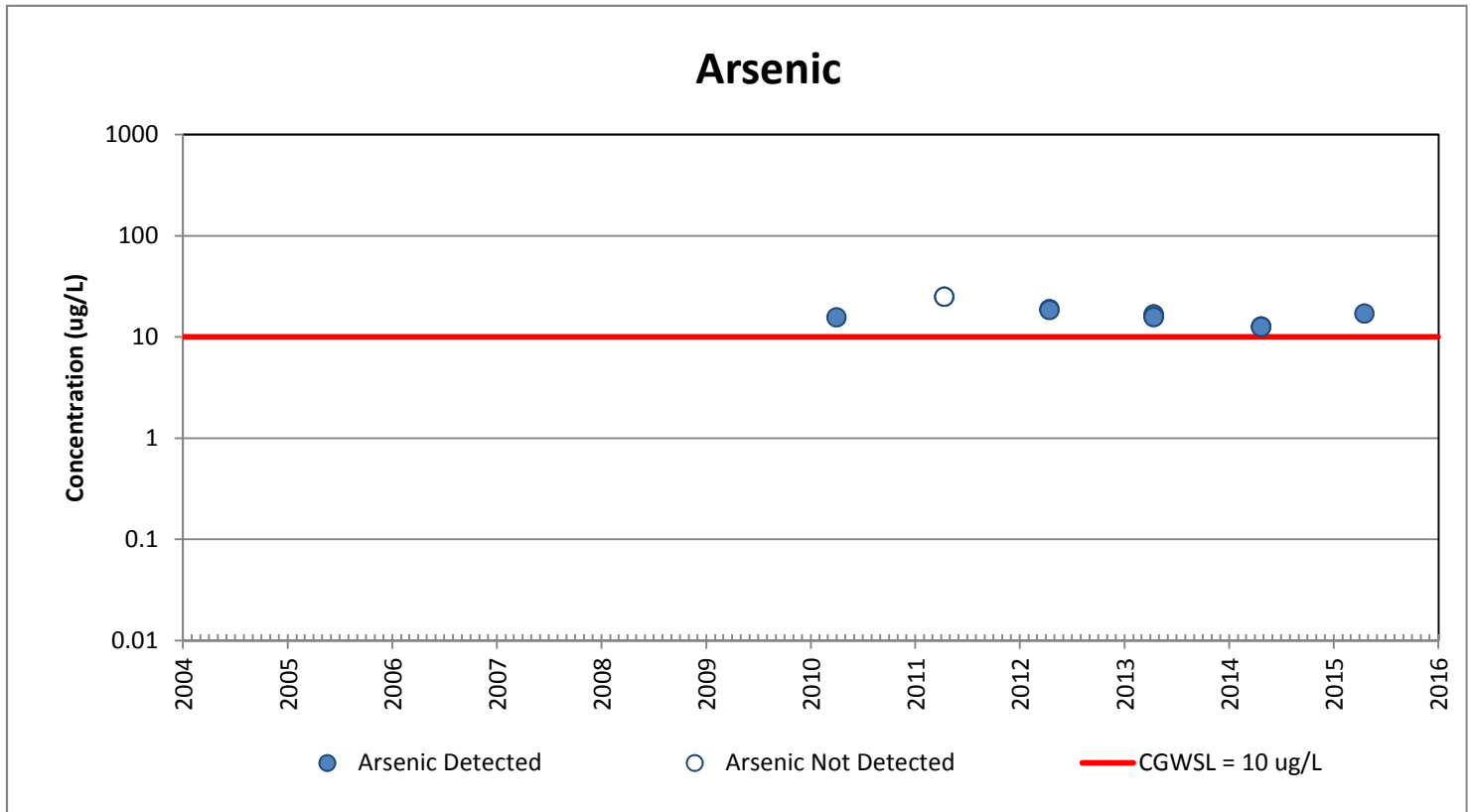
## MTBE



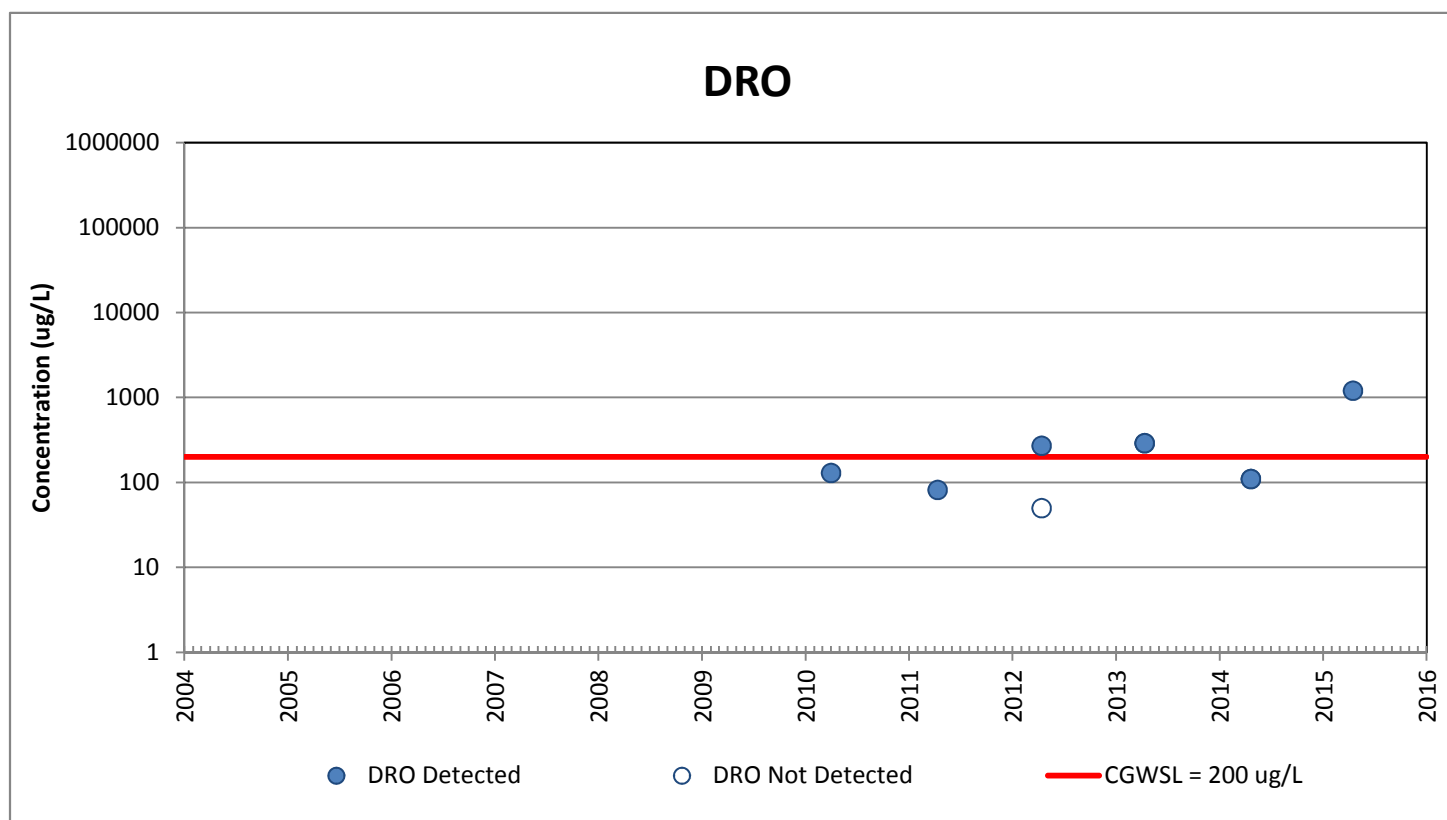
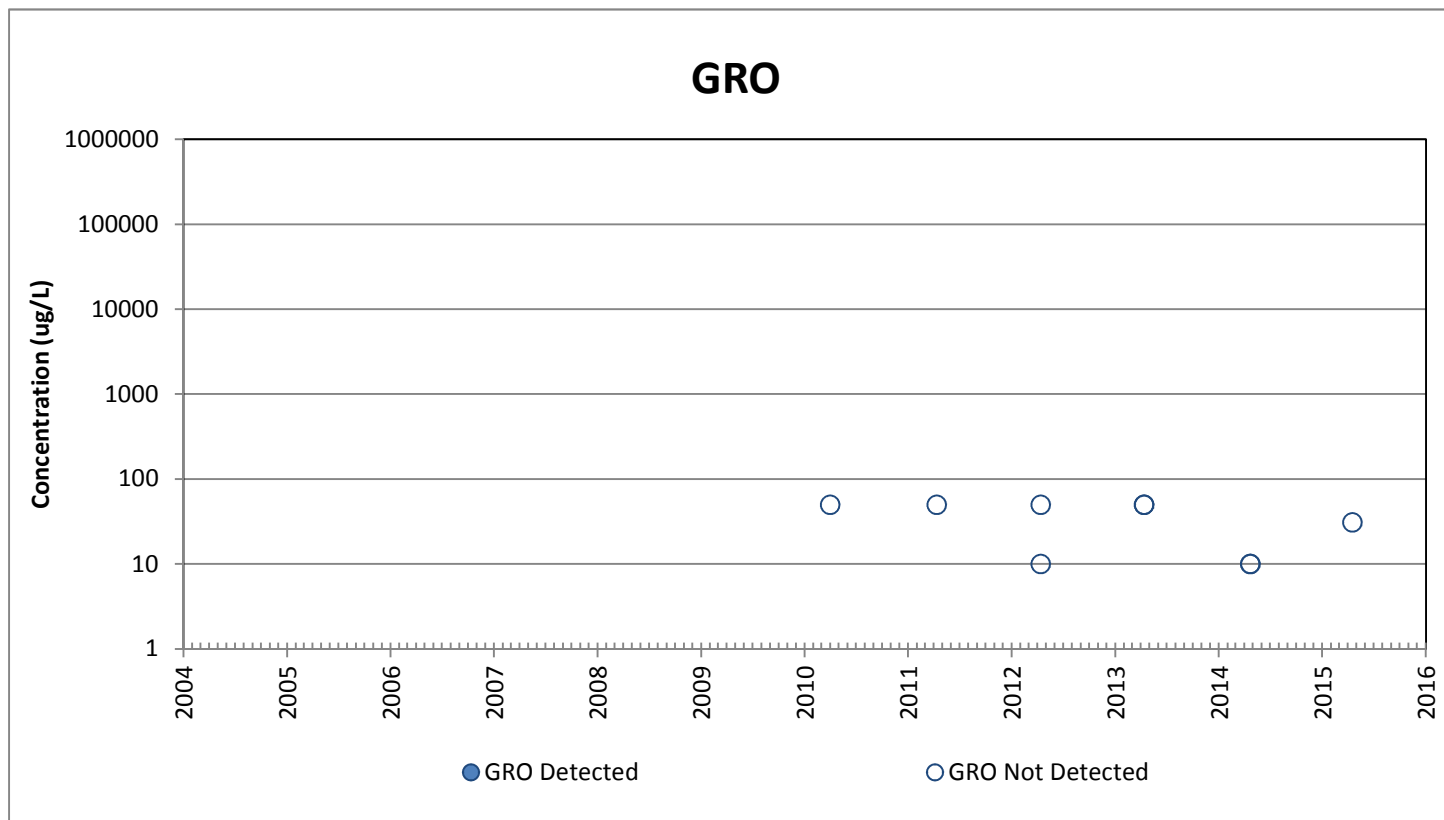
## Naphthalene



# RW-16



# RW-17

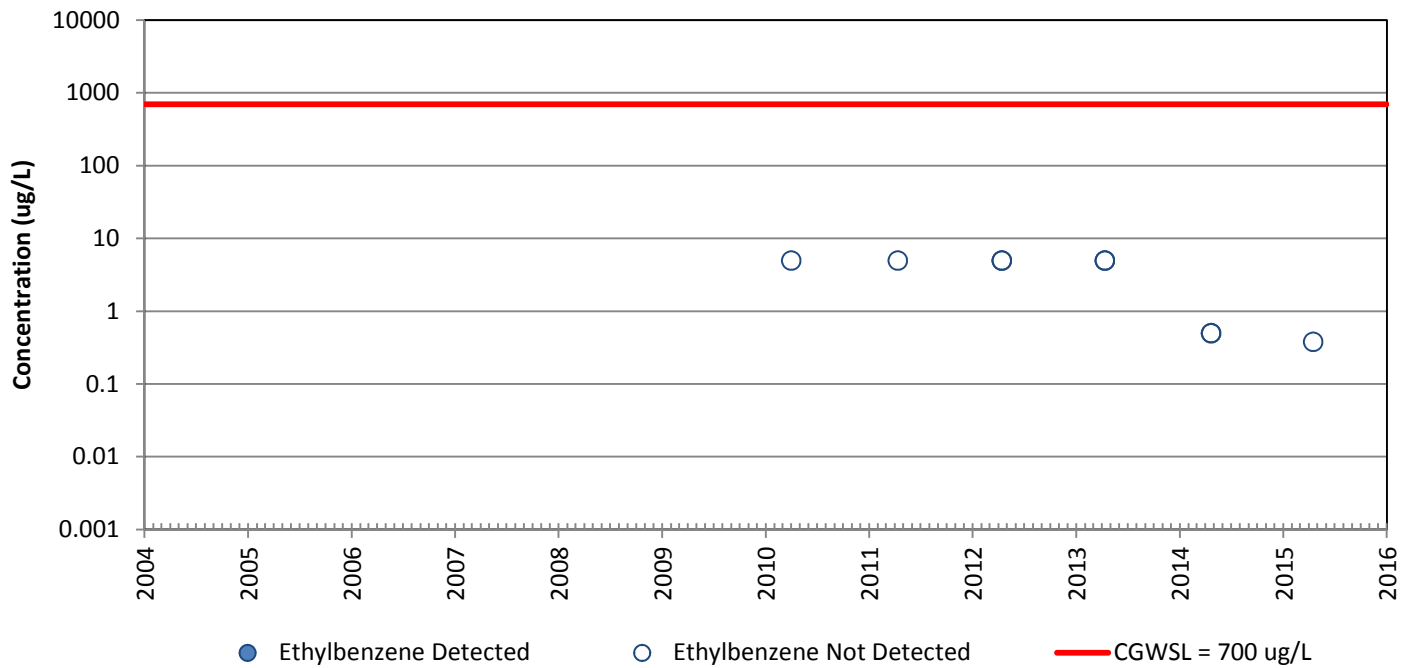


# RW-17

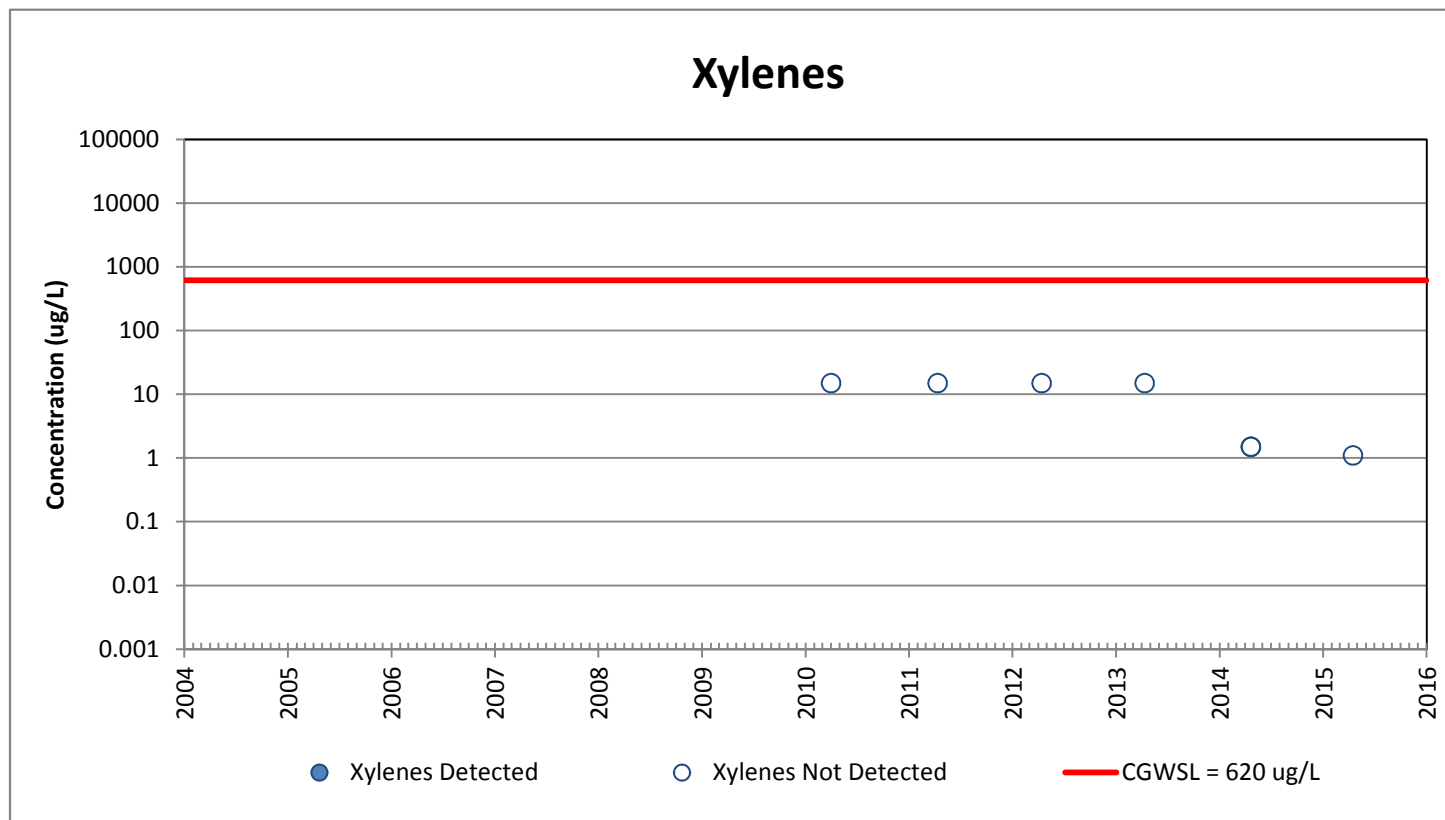
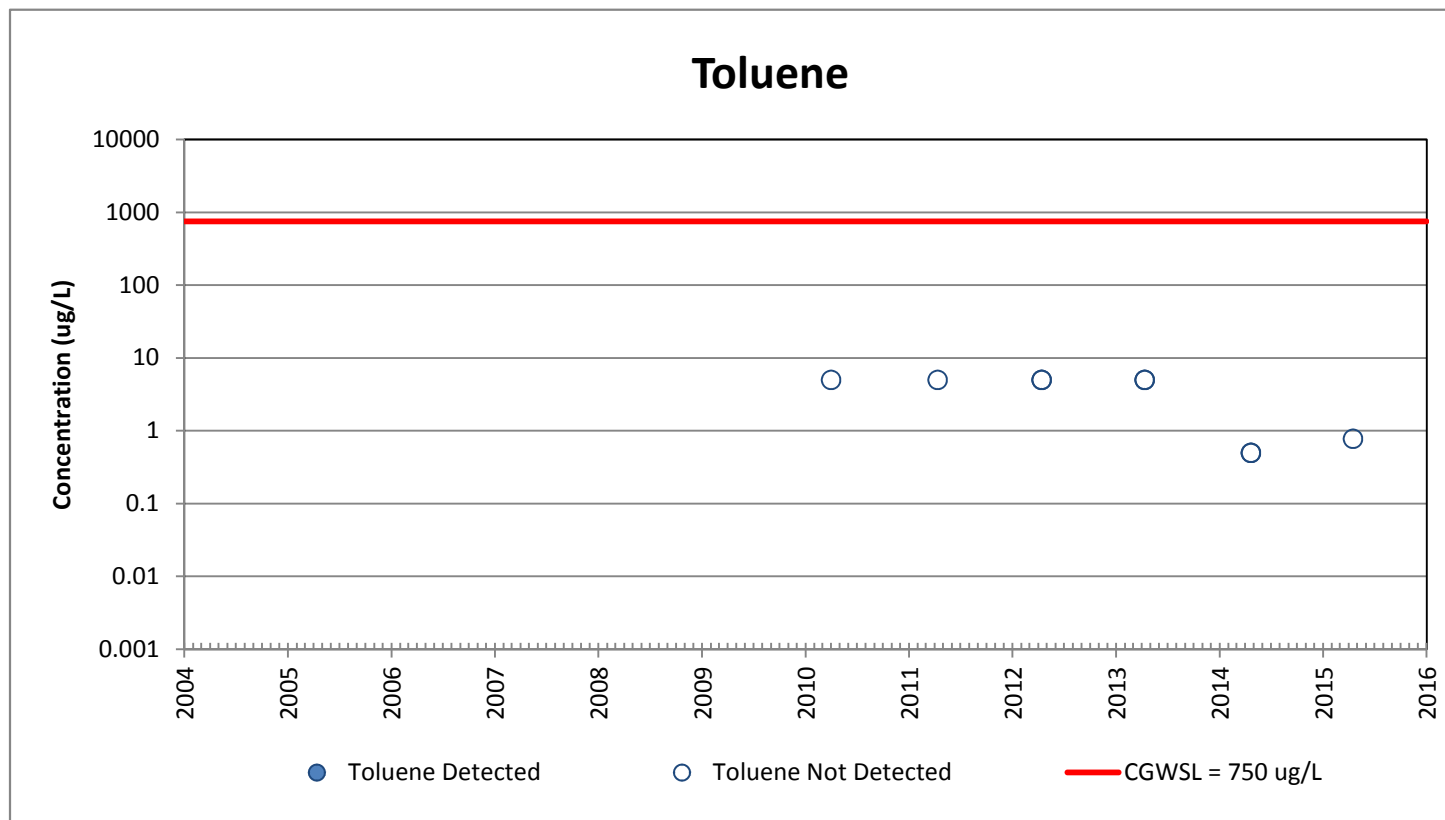
## Benzene



## Ethylbenzene

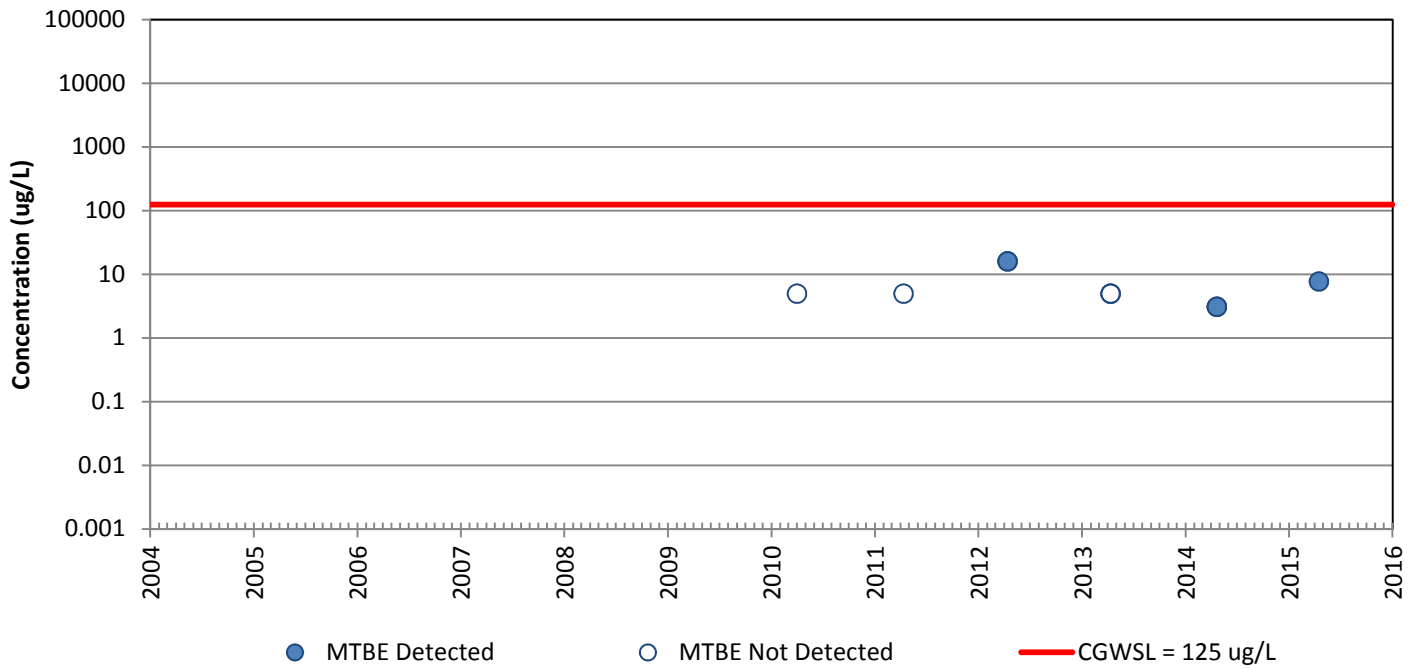


# RW-17

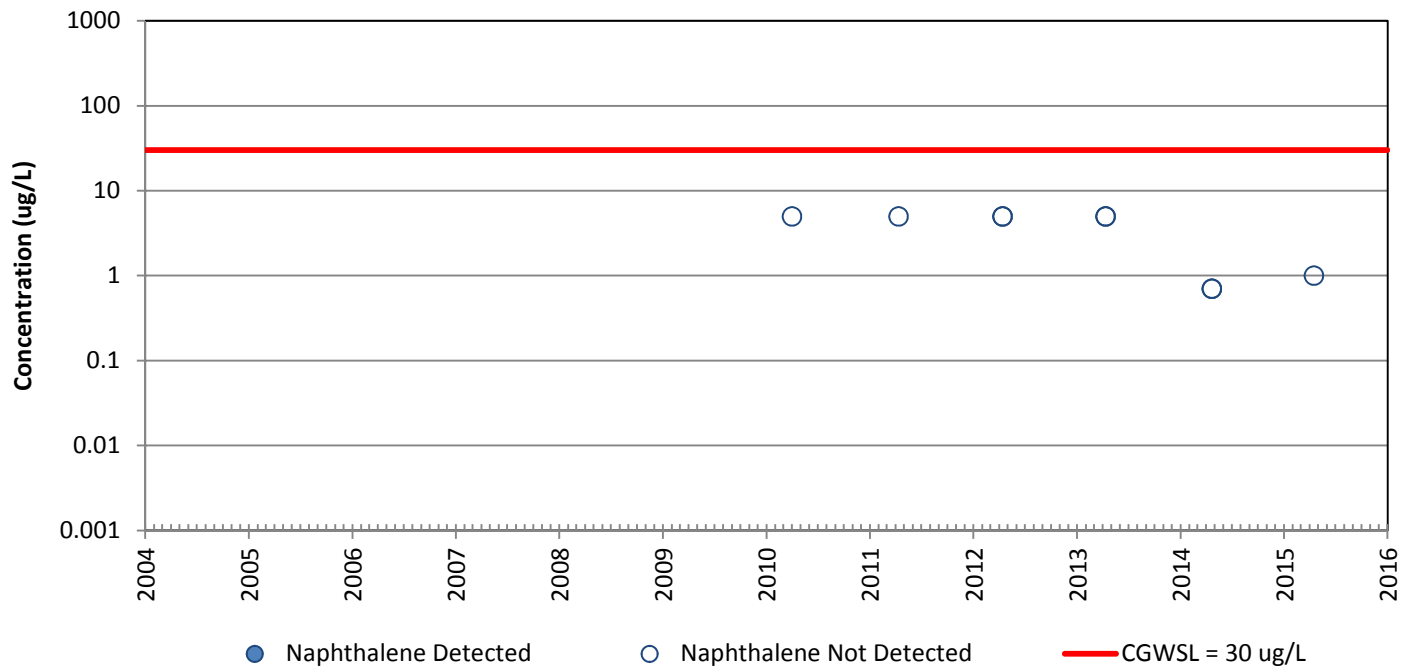


# RW-17

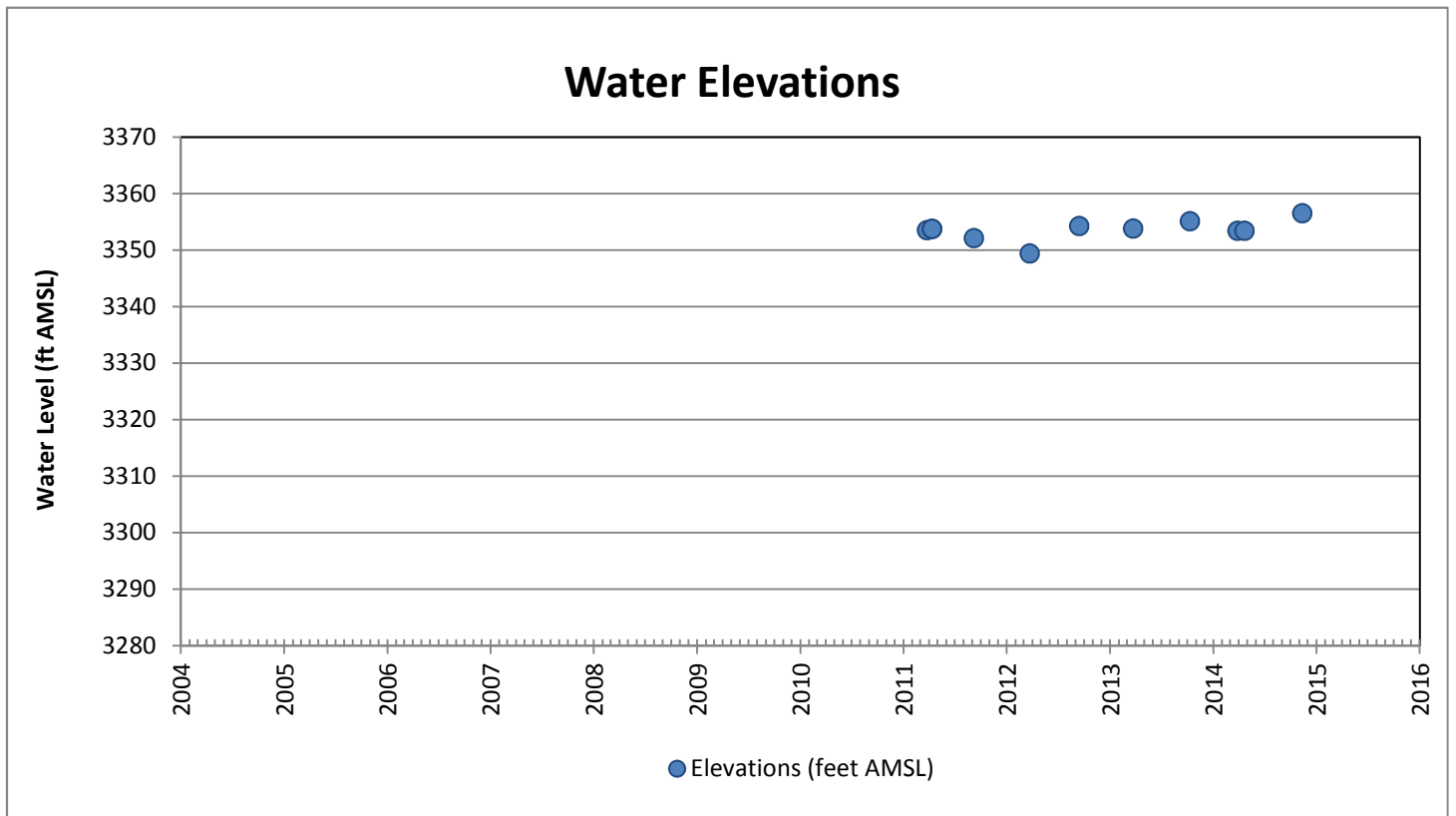
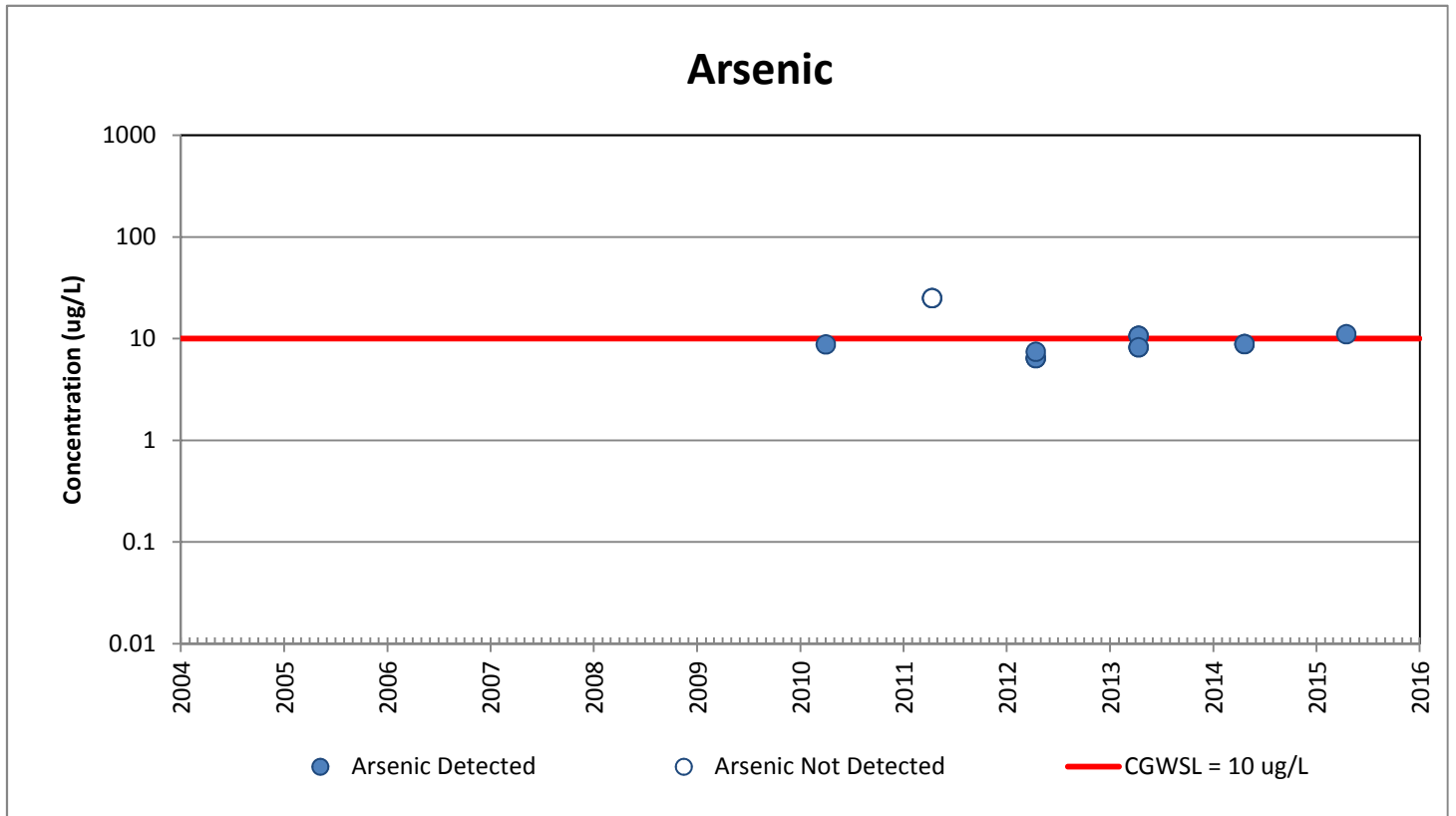
## MTBE



## Naphthalene

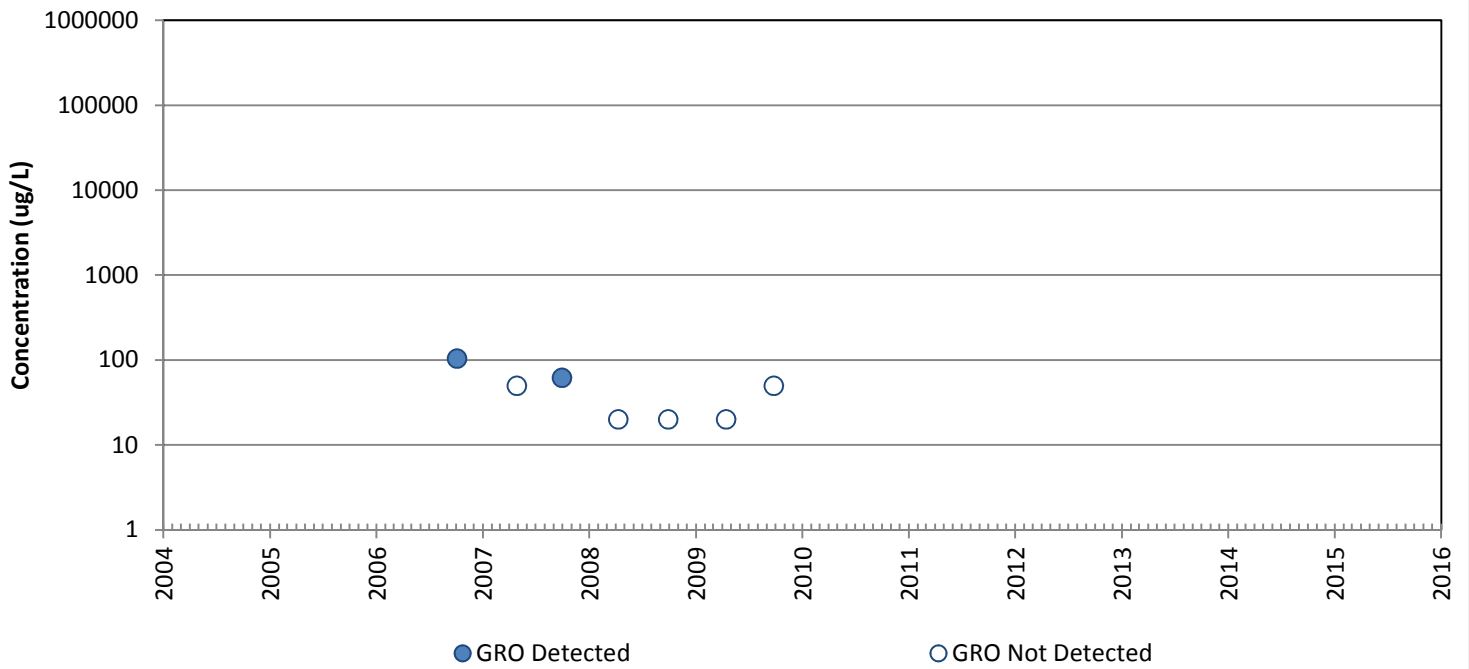


# RW-17

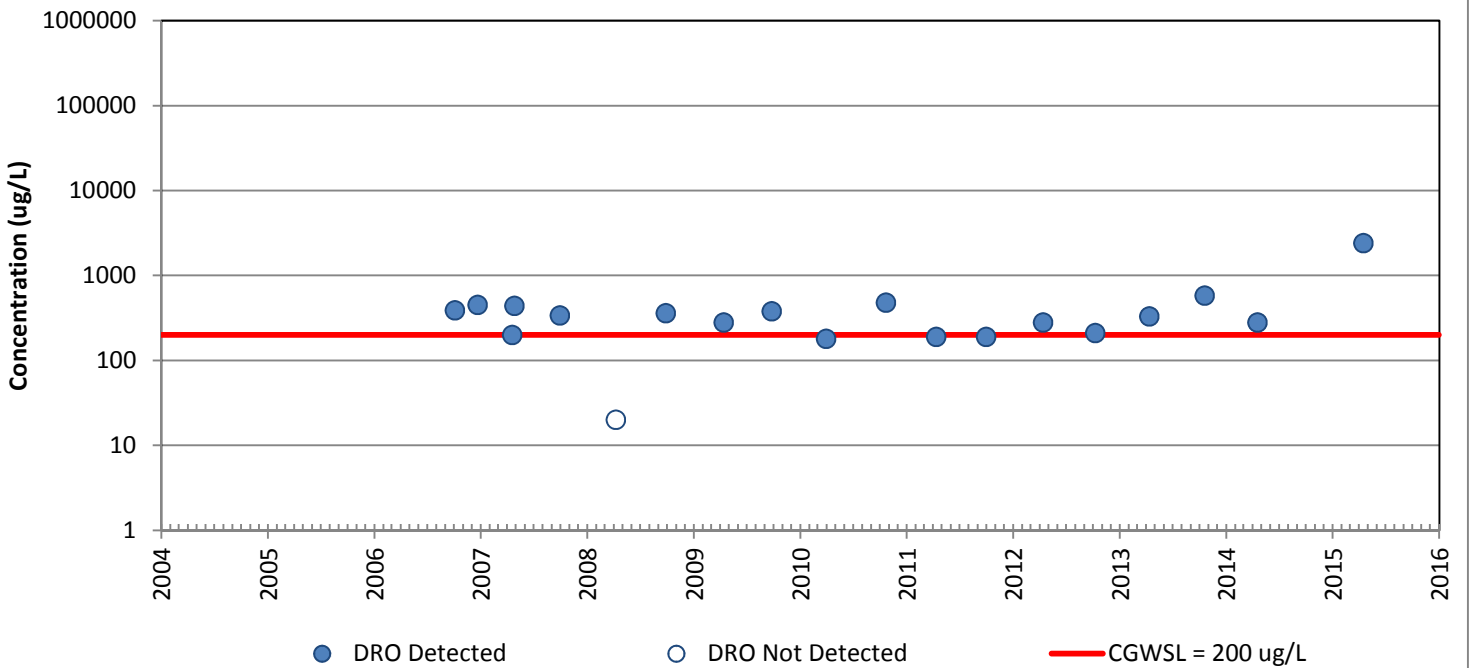


# MW-18

## GRO

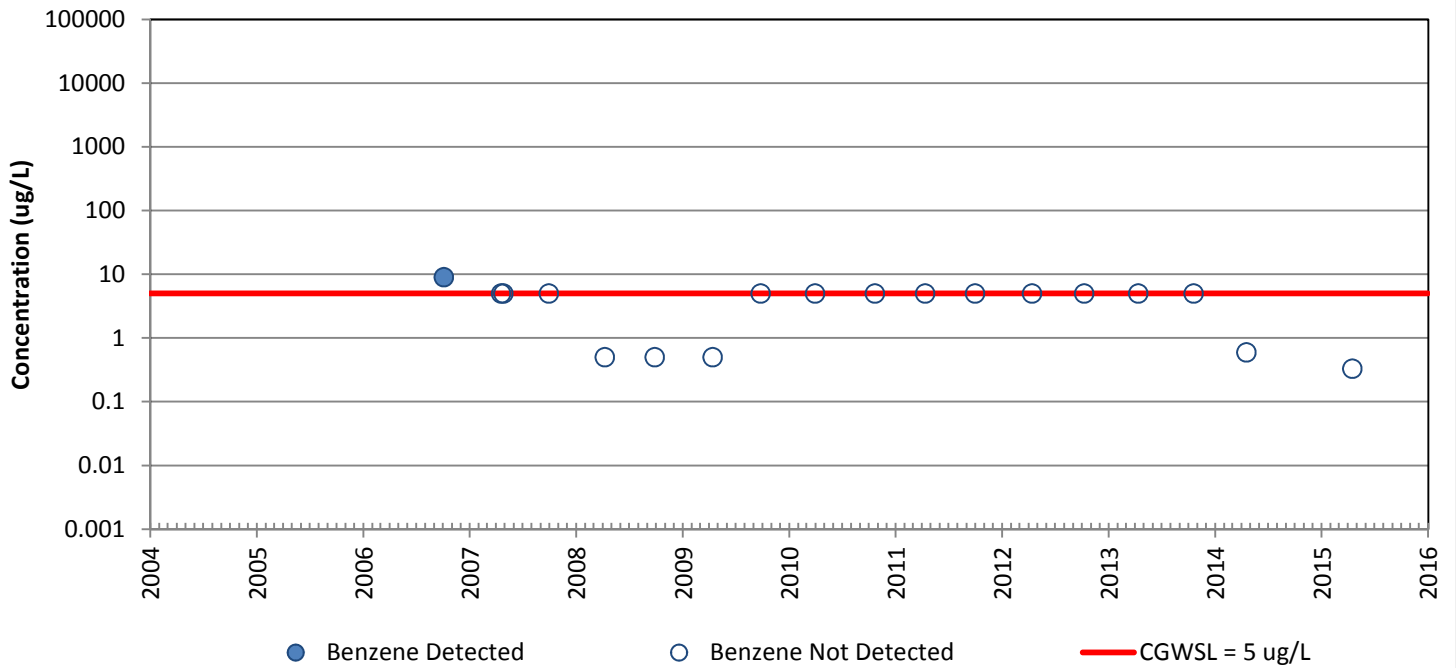


## DRO

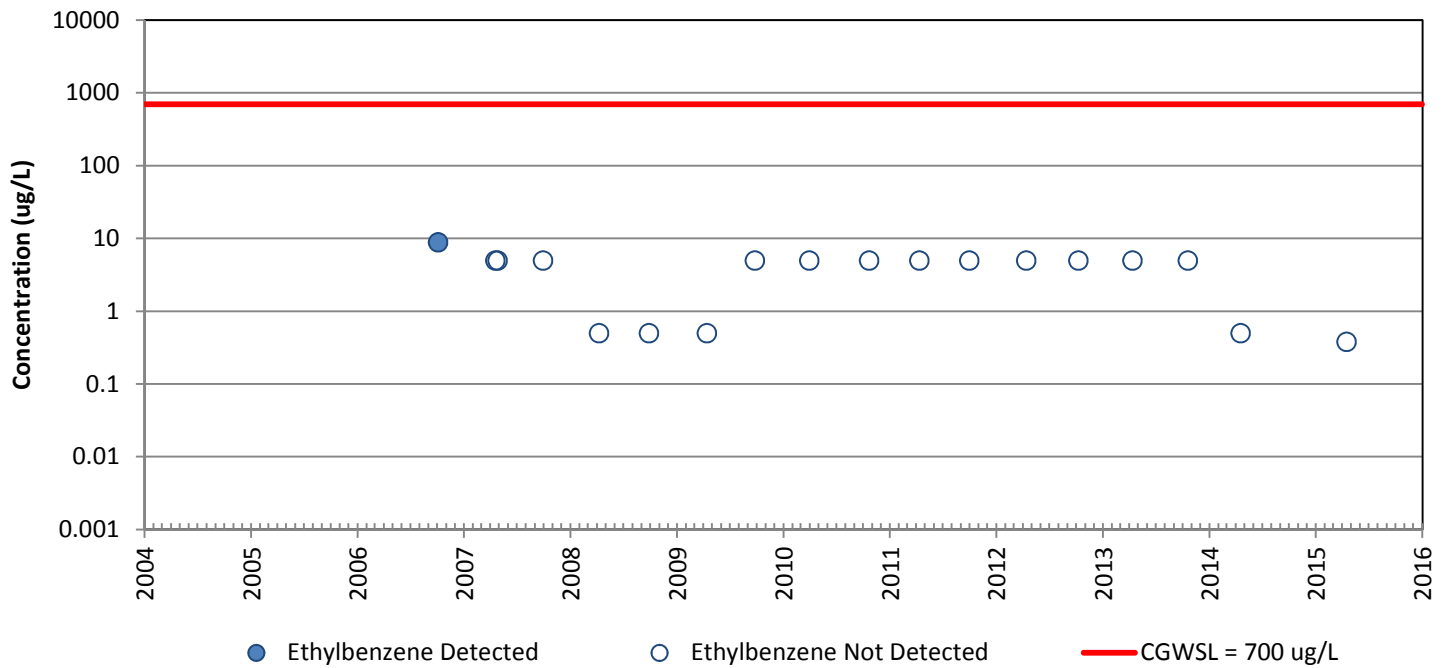


# MW-18

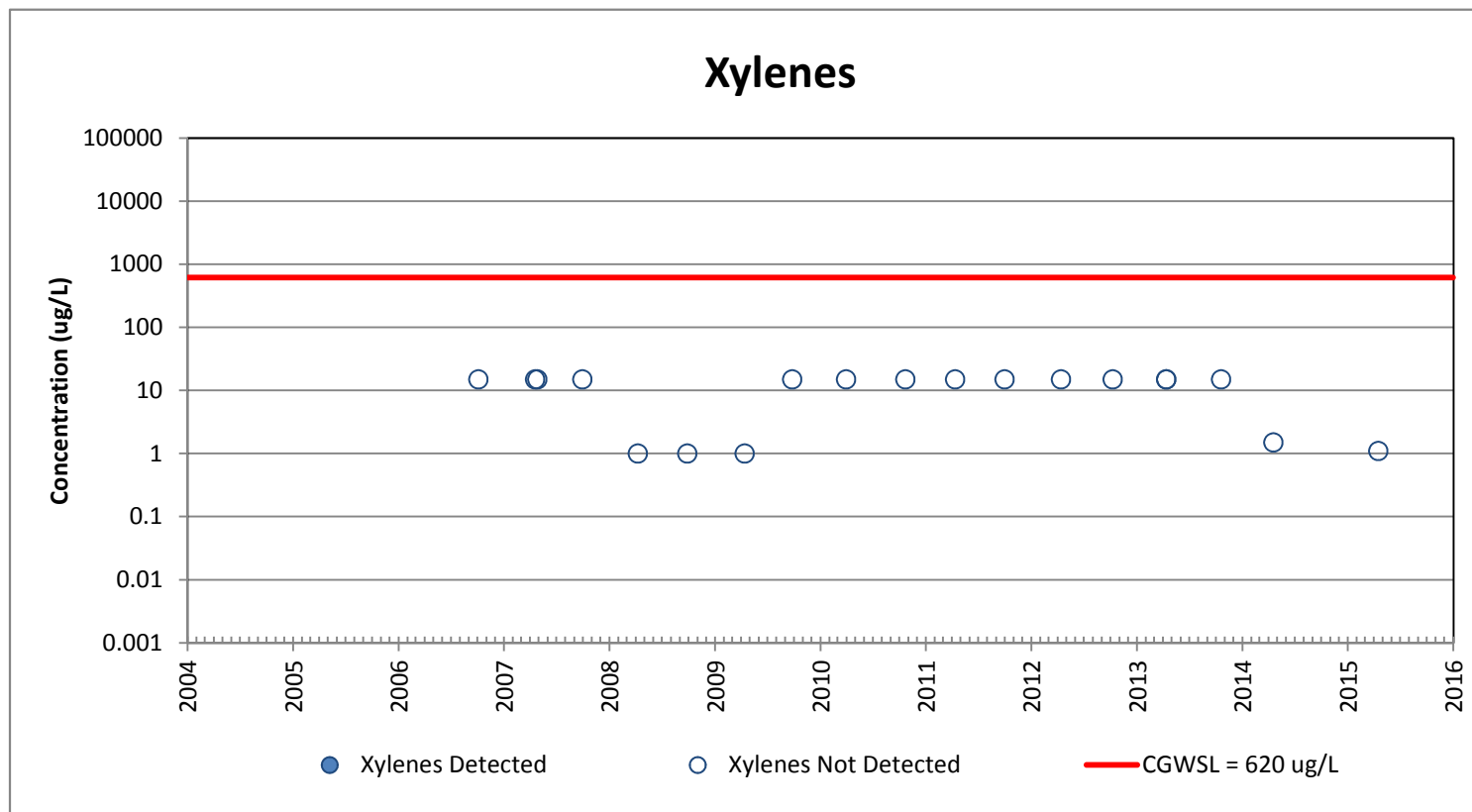
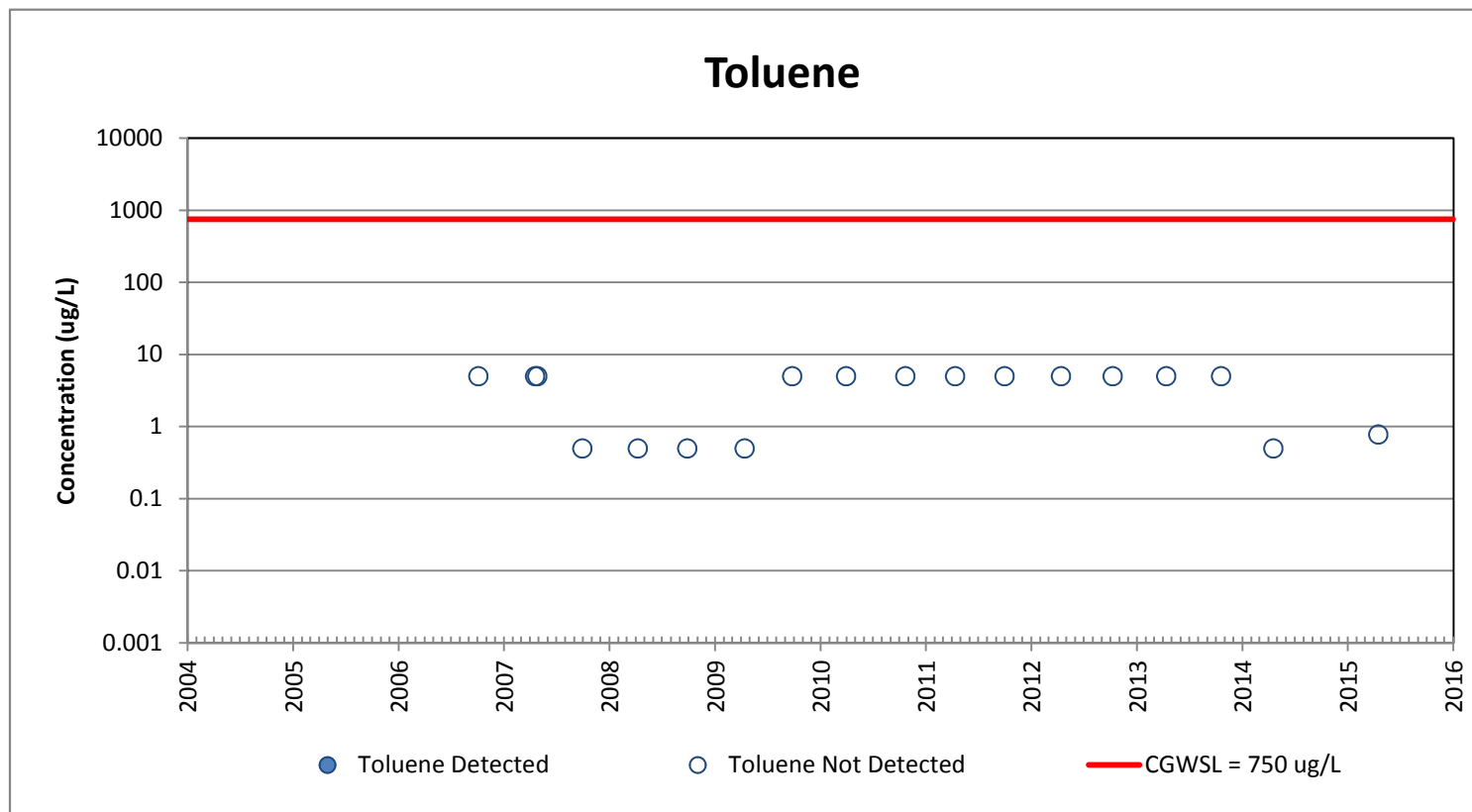
## Benzene



## Ethylbenzene

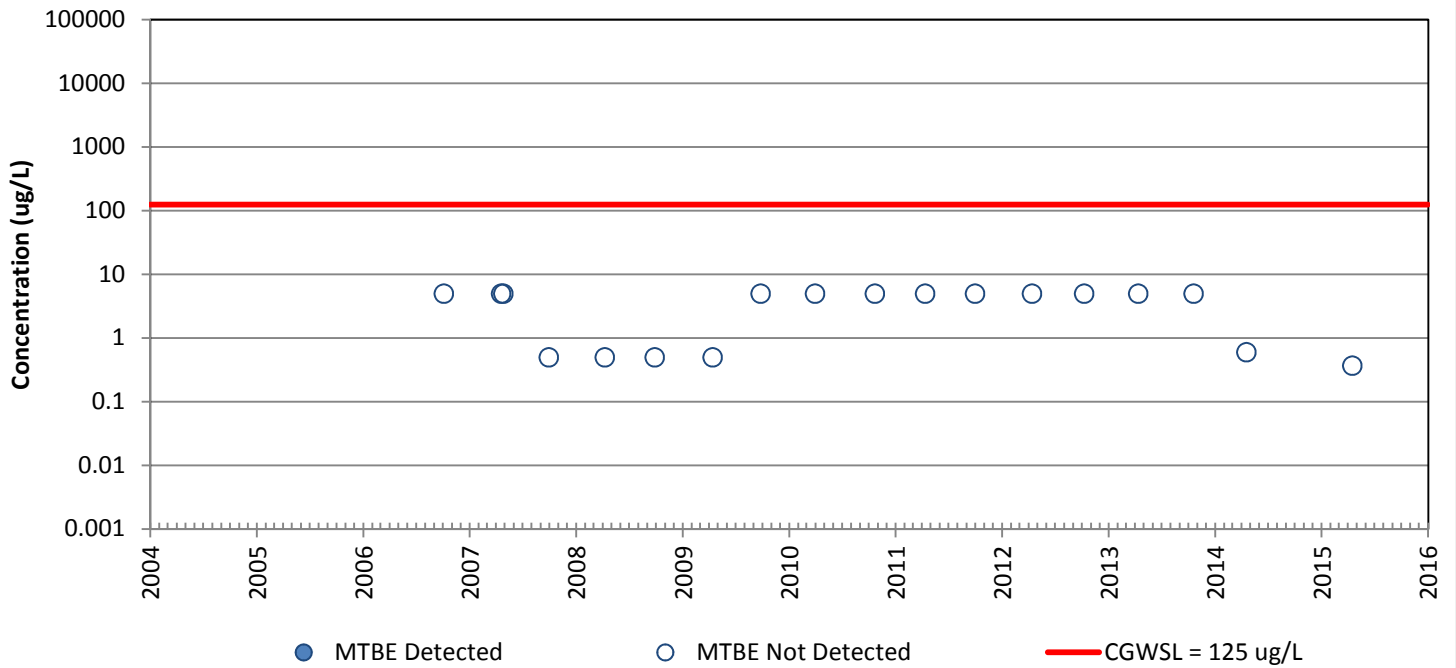


# MW-18

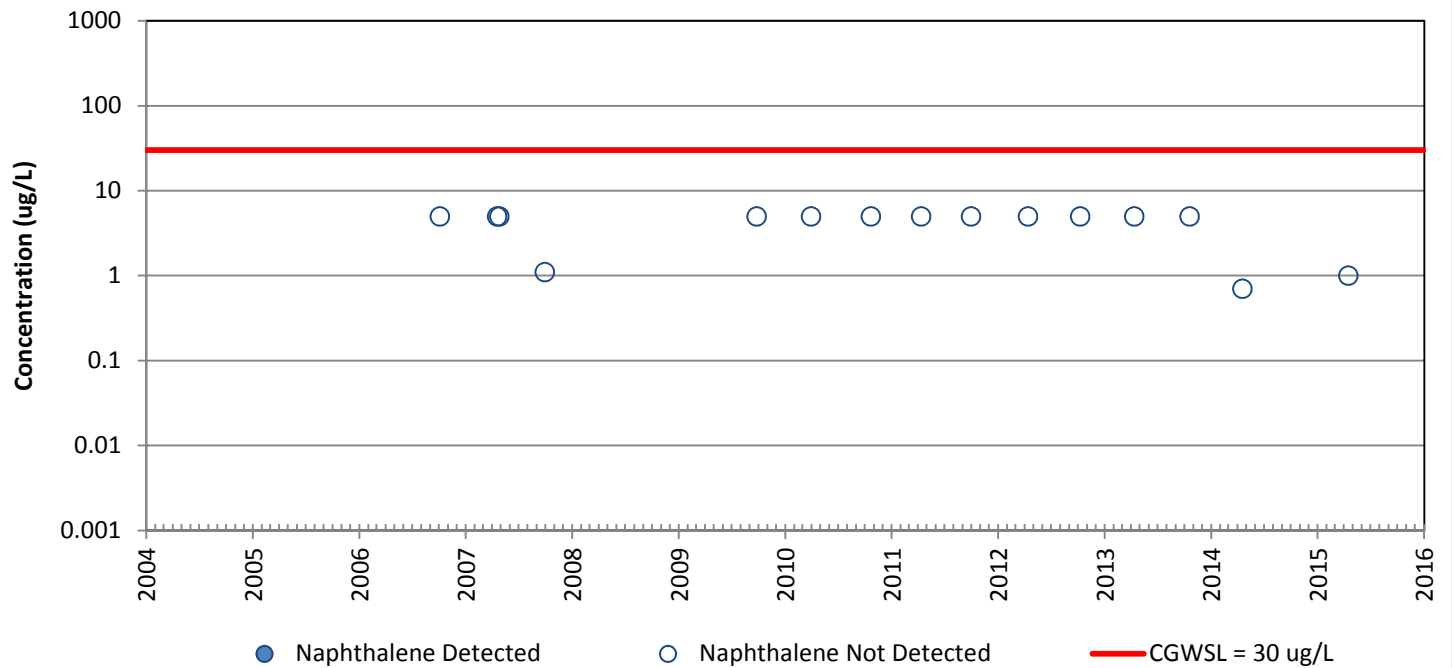


# MW-18

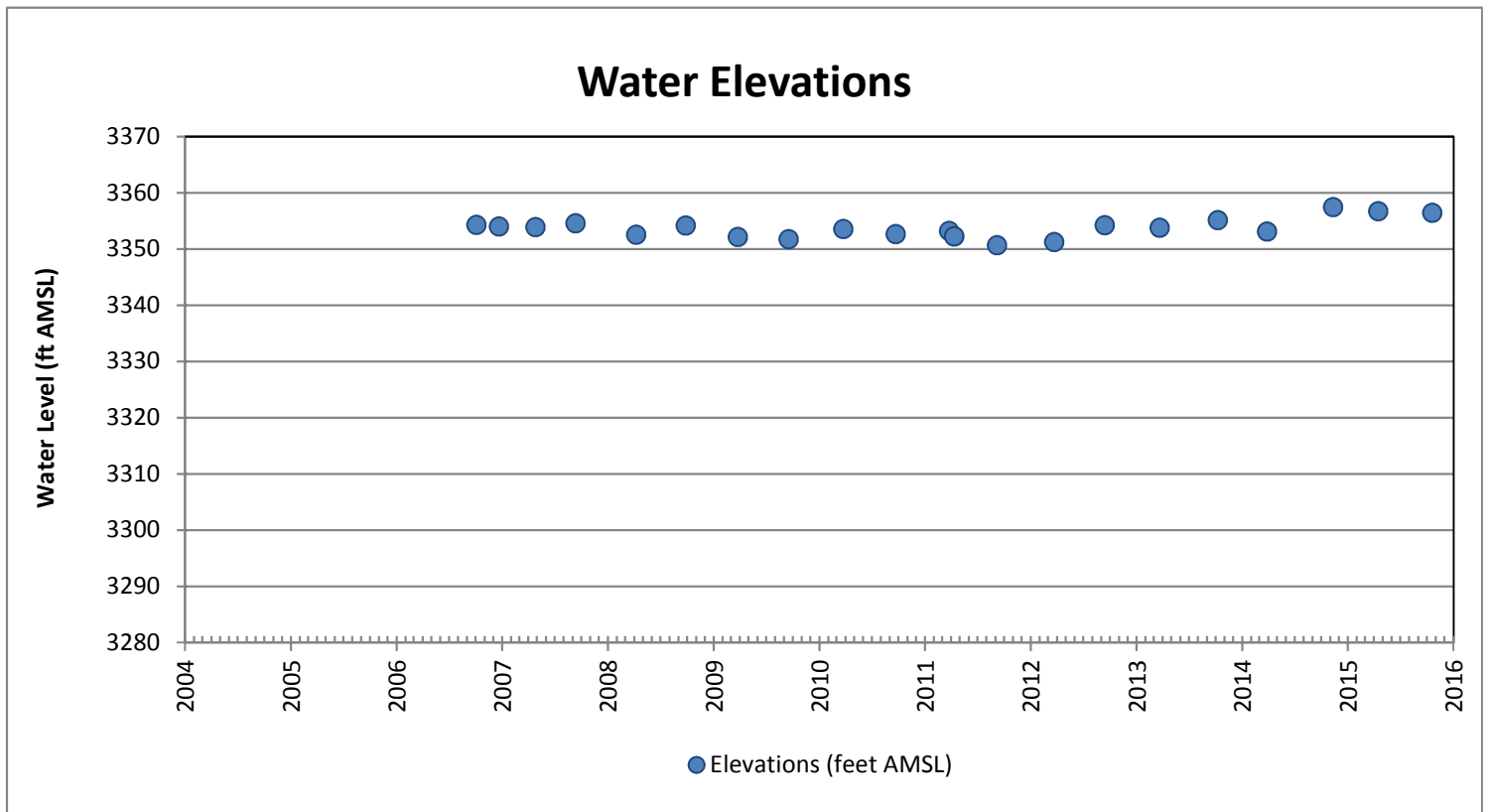
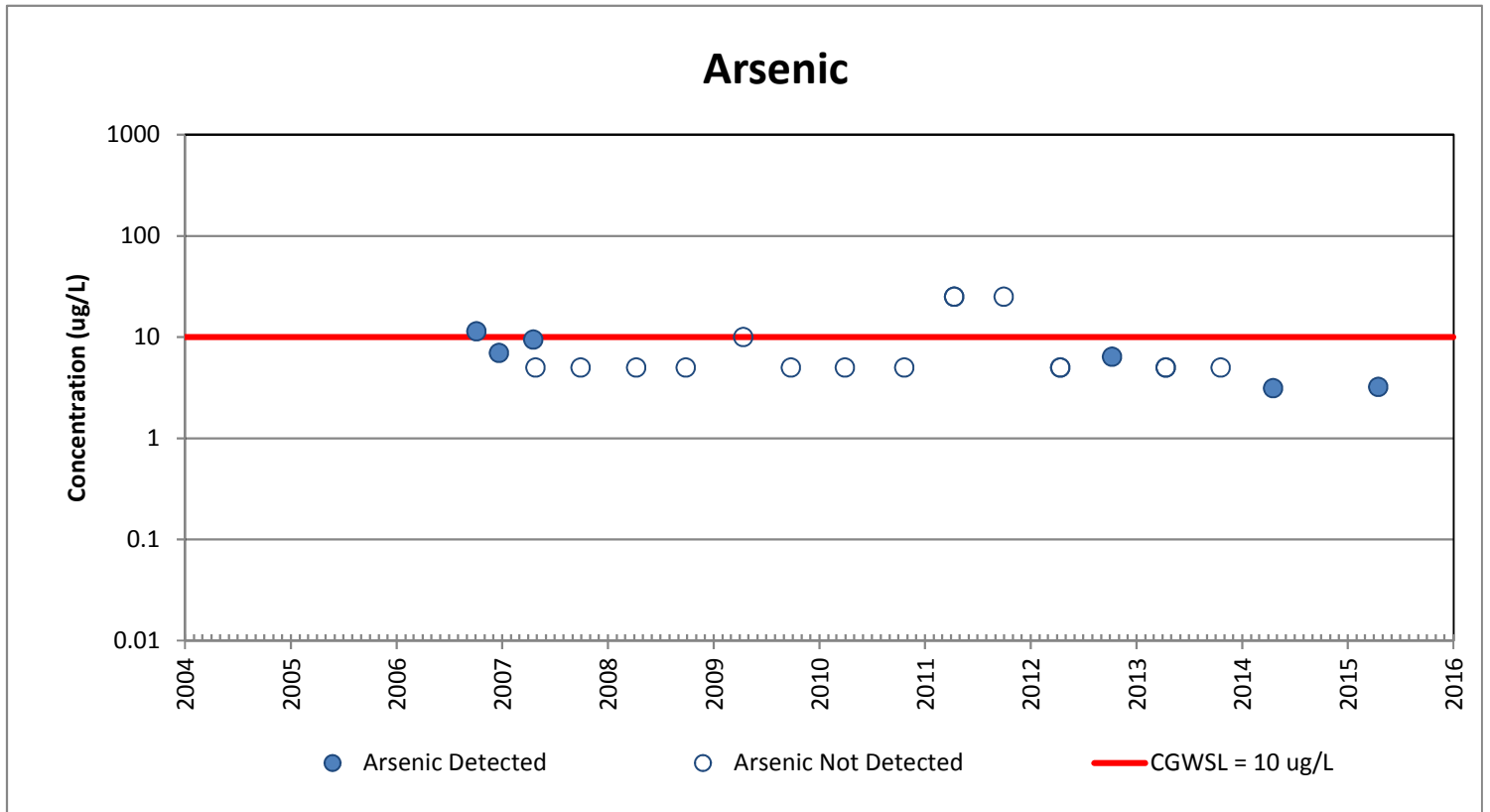
## MTBE



## Naphthalene

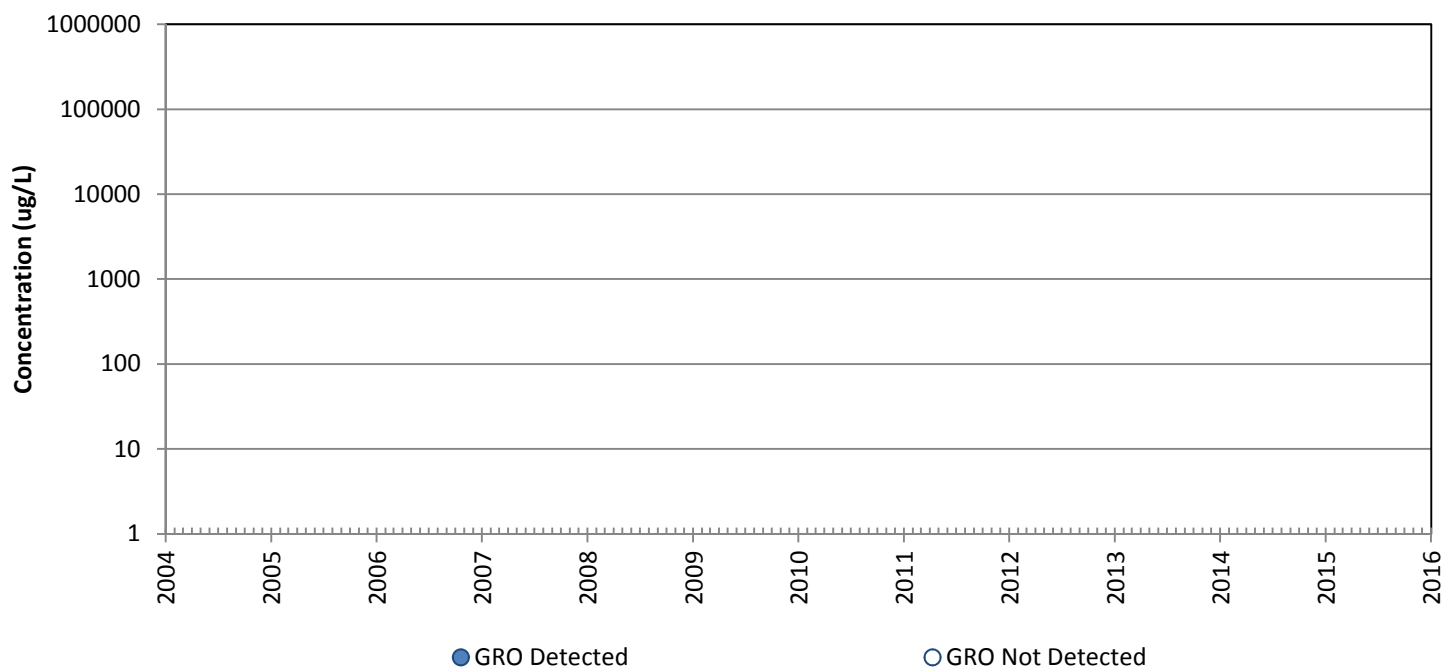


# MW-18

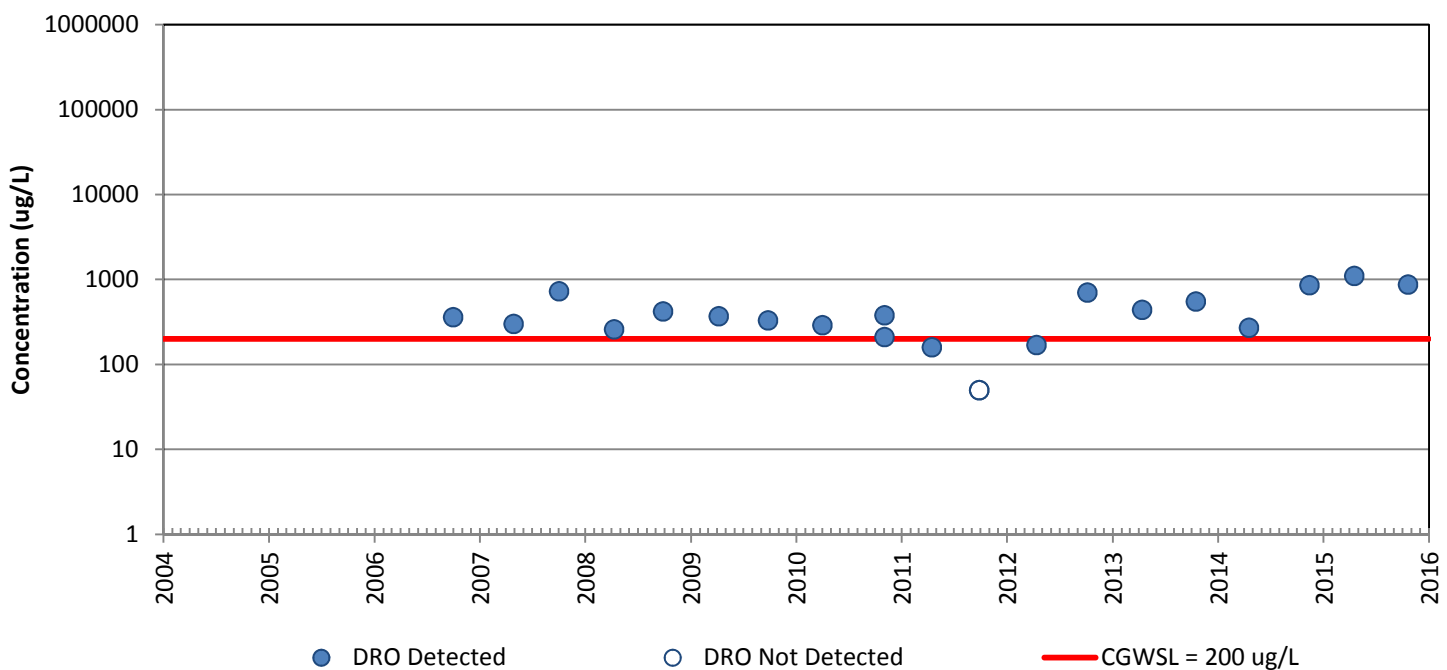


# MW-45

## GRO

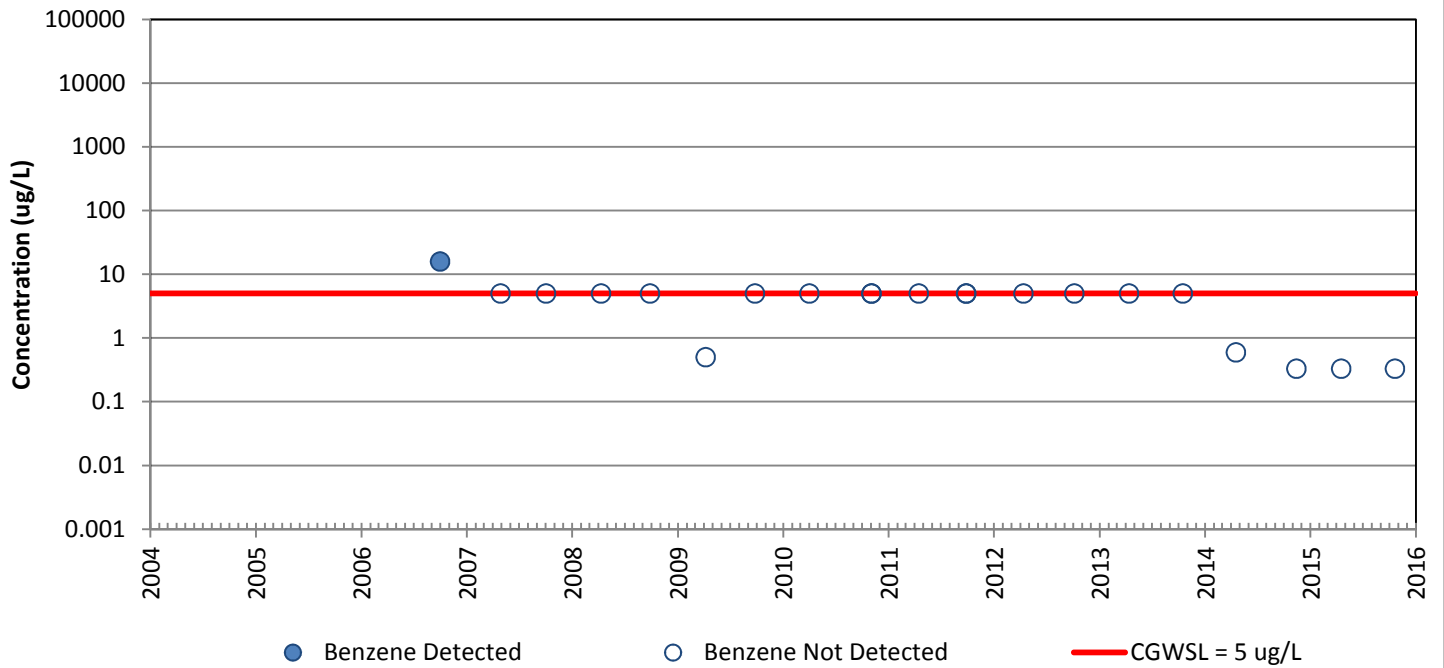


## DRO

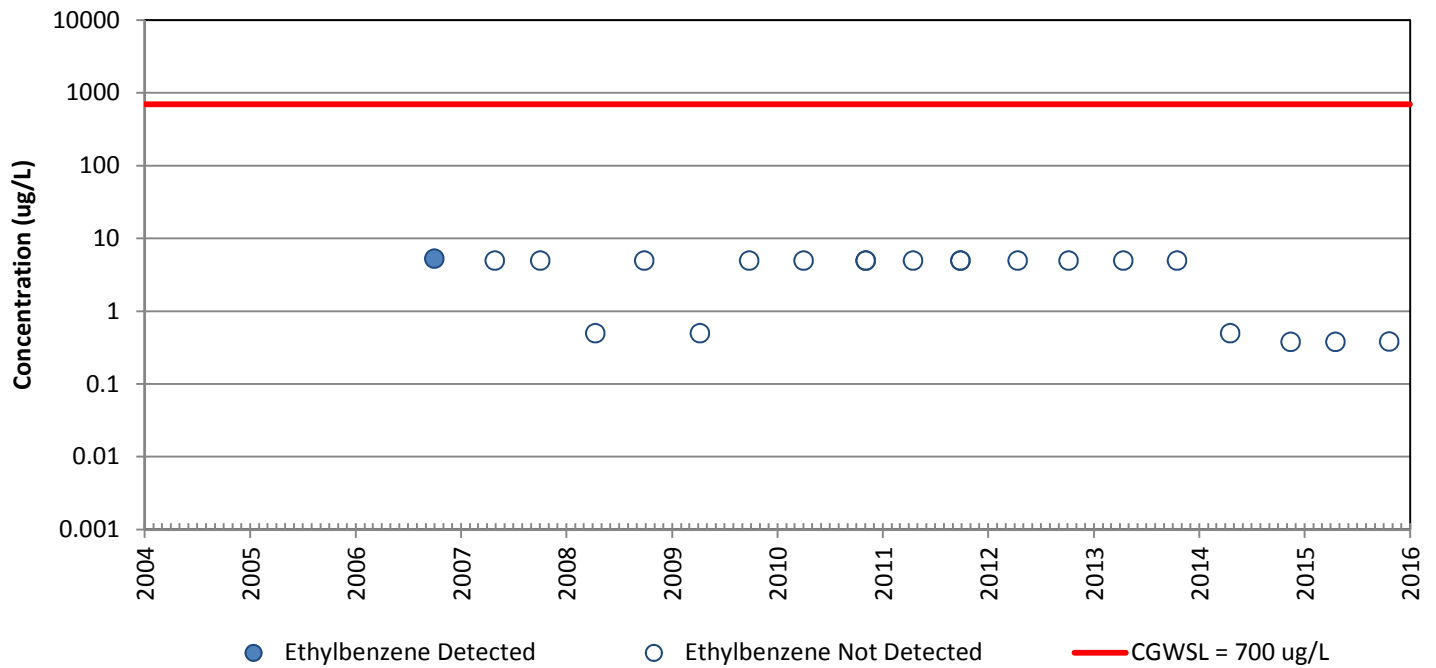


# MW-45

## Benzene

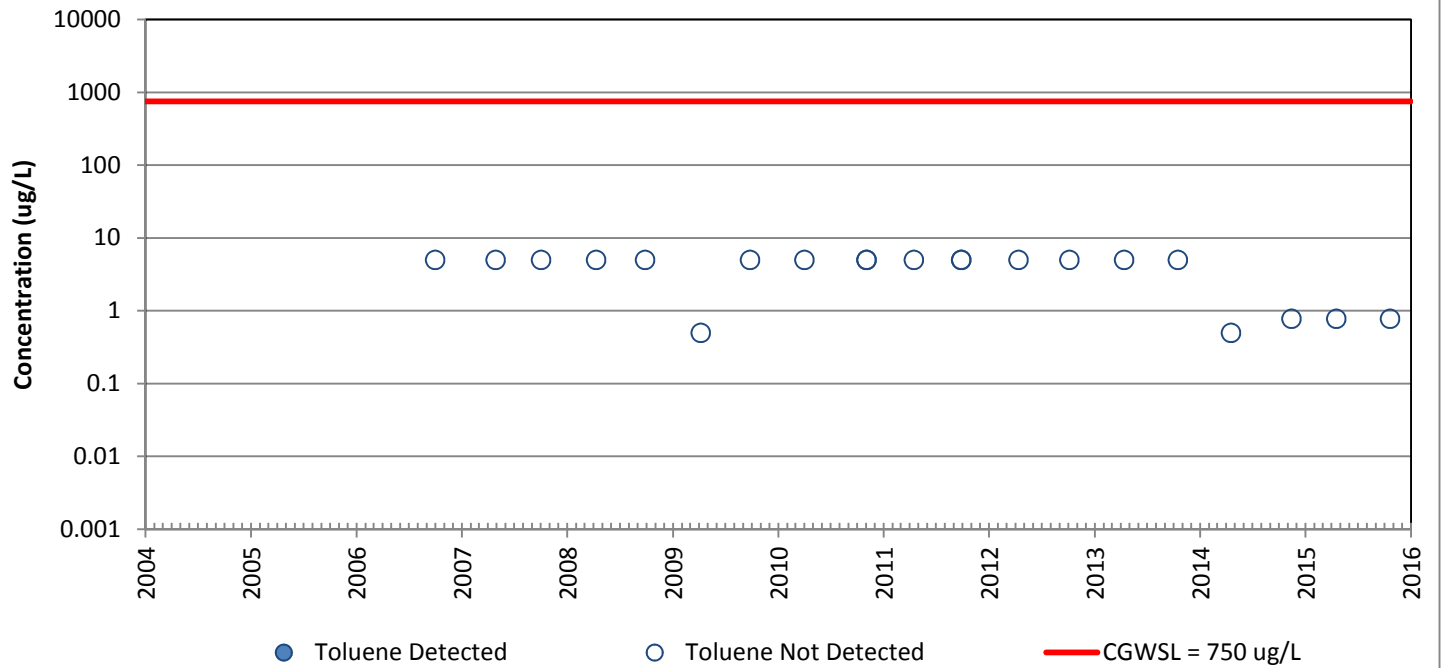


## Ethylbenzene

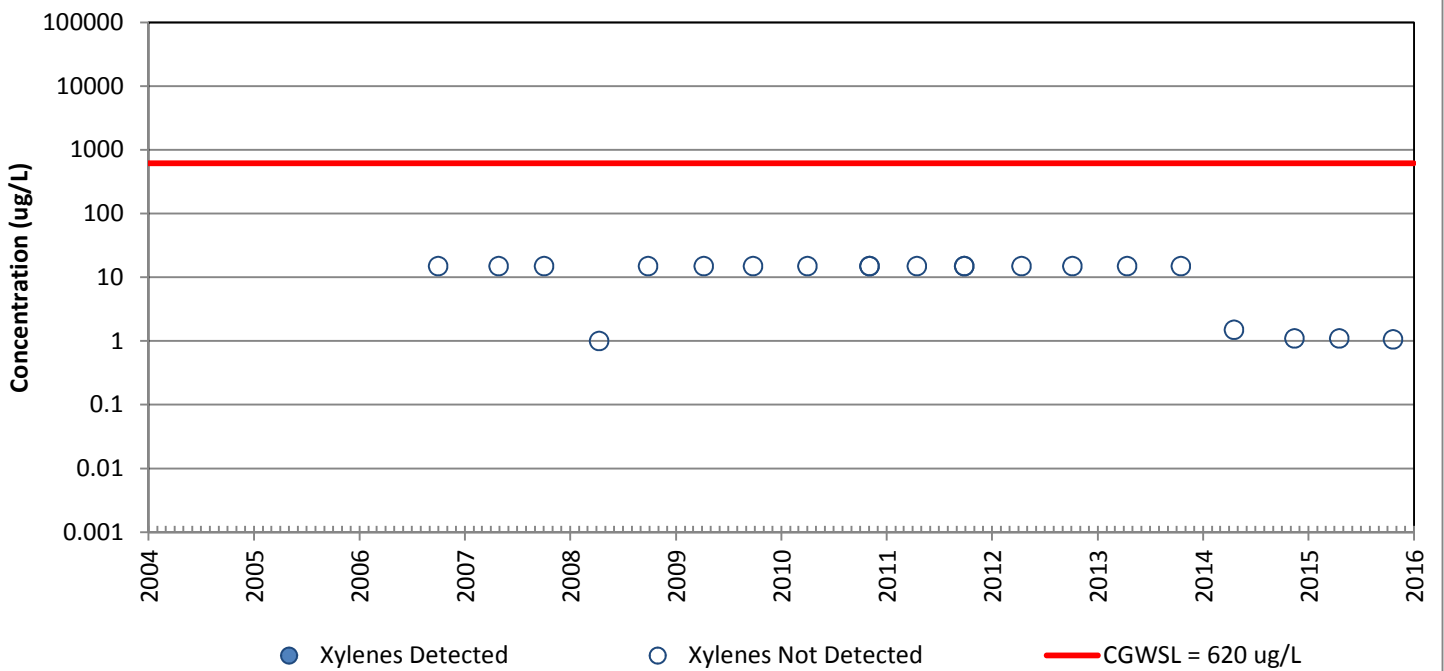


# MW-45

## Toluene

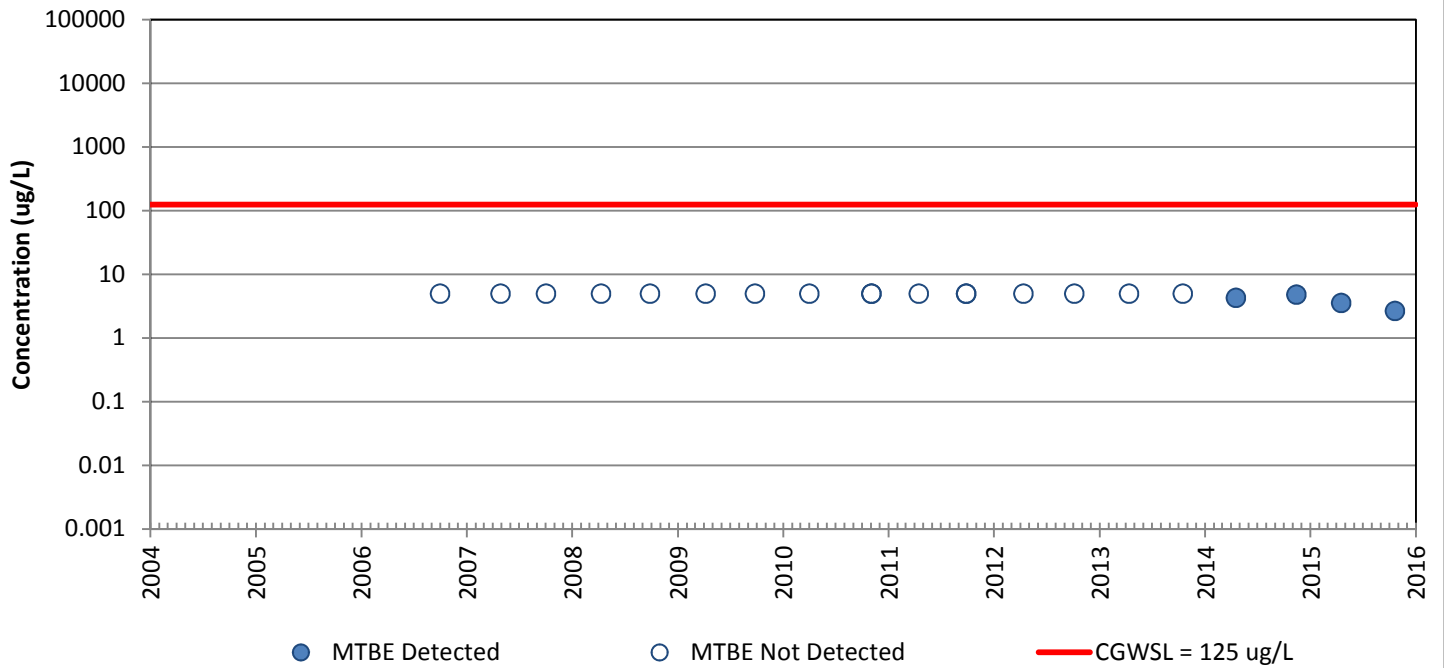


## Xylenes

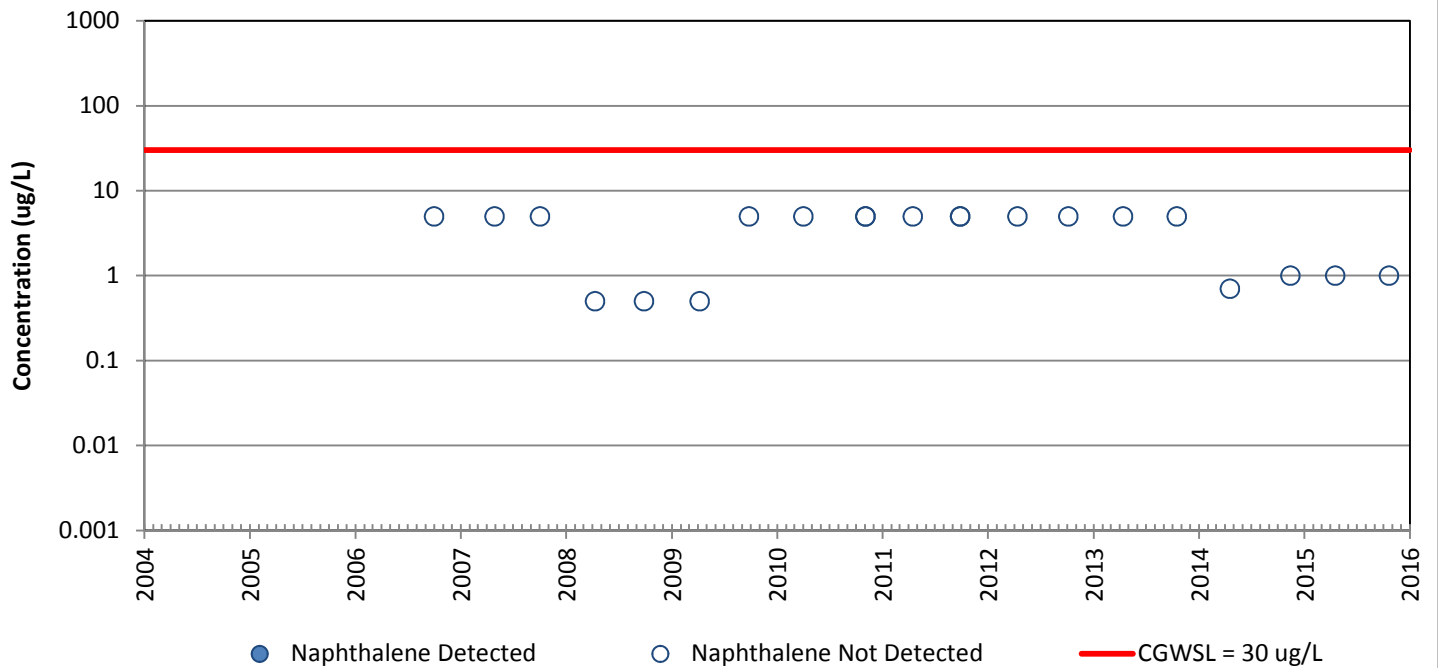


# MW-45

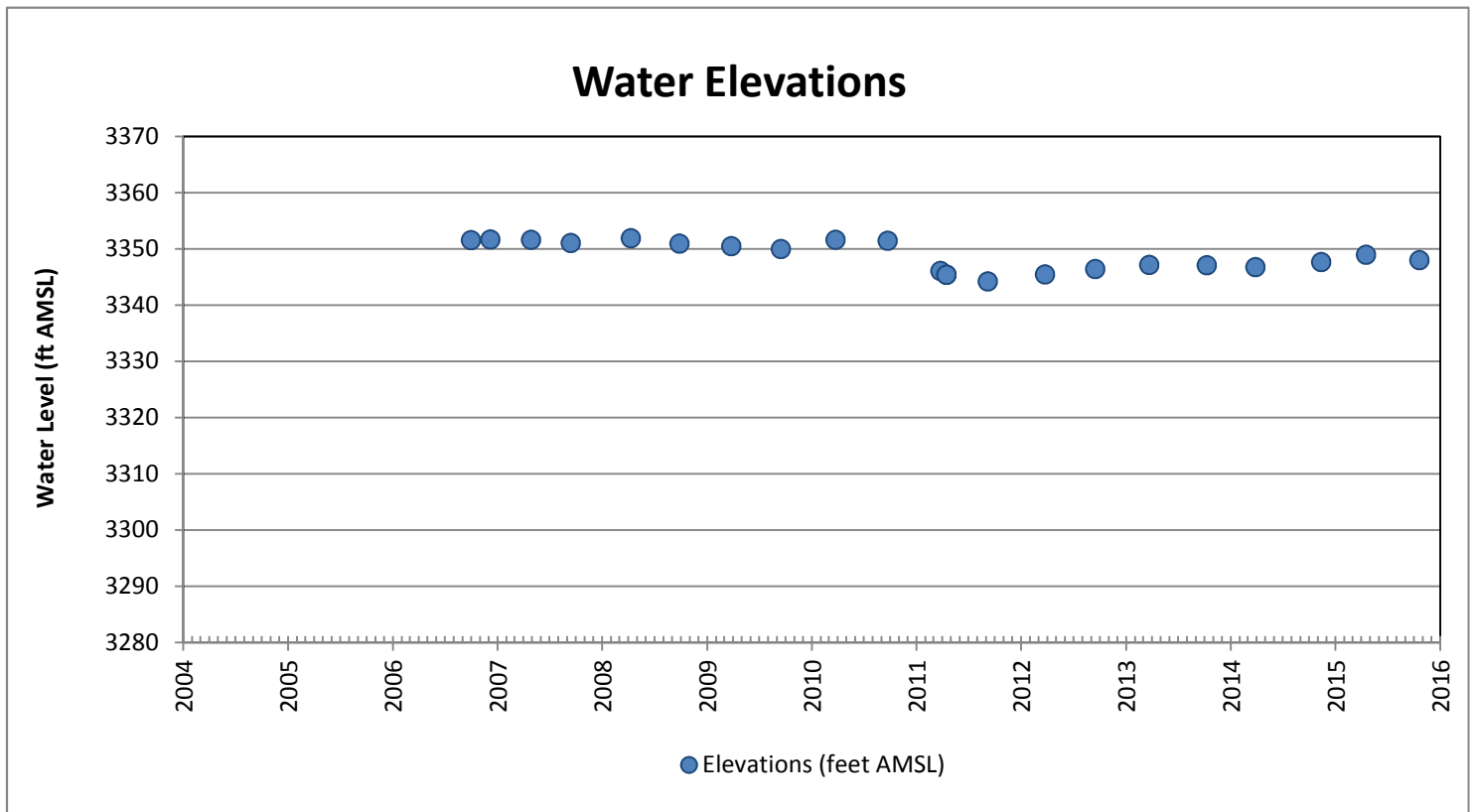
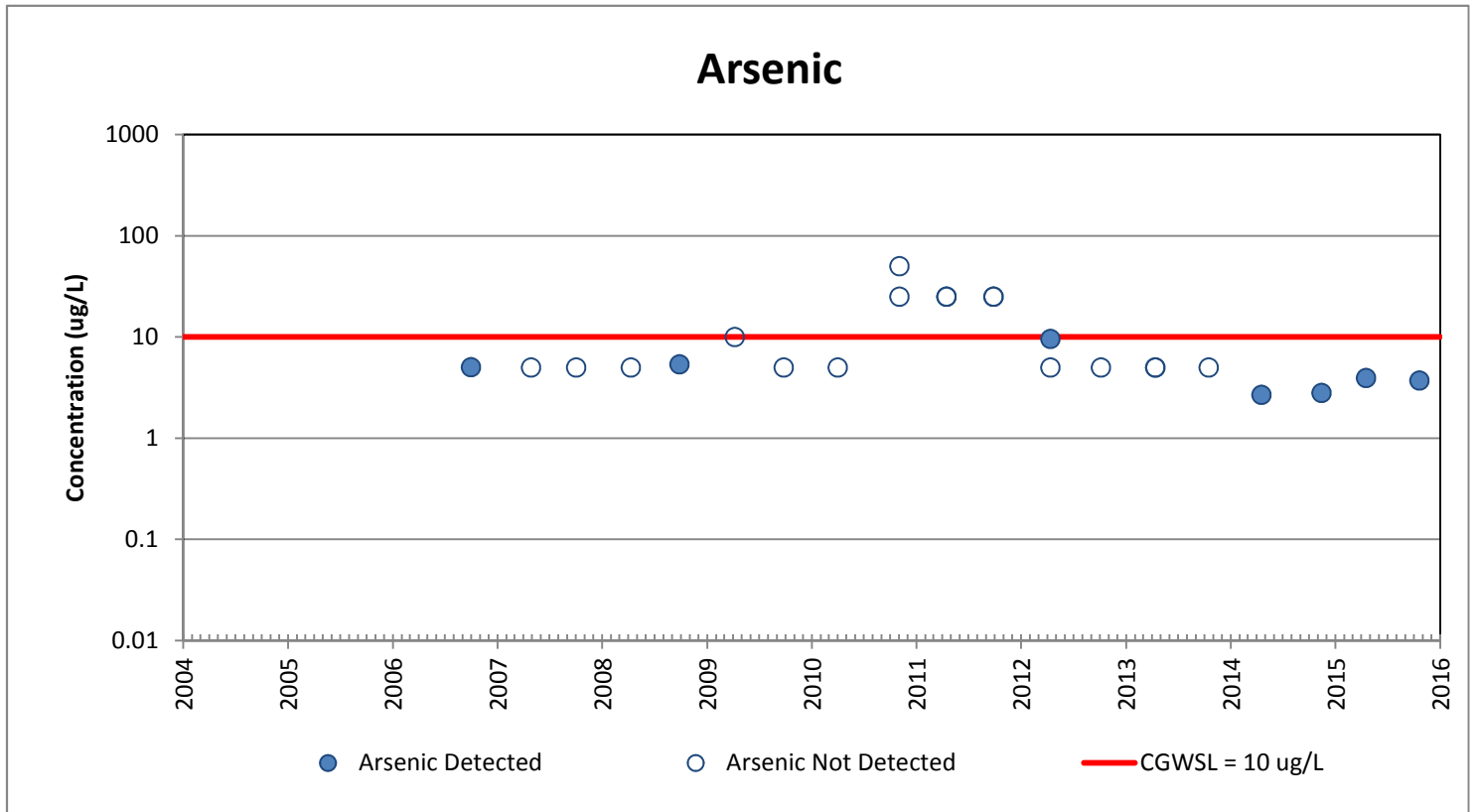
## MTBE



## Naphthalene

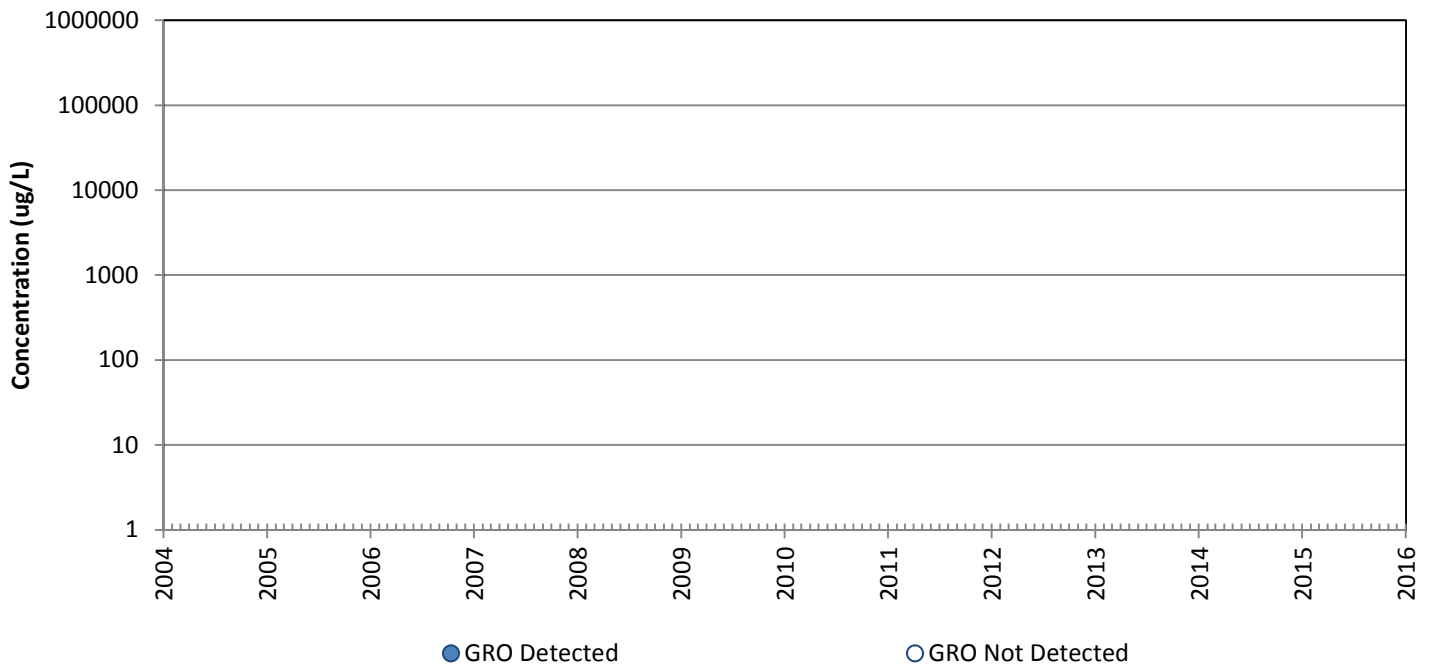


# MW-45

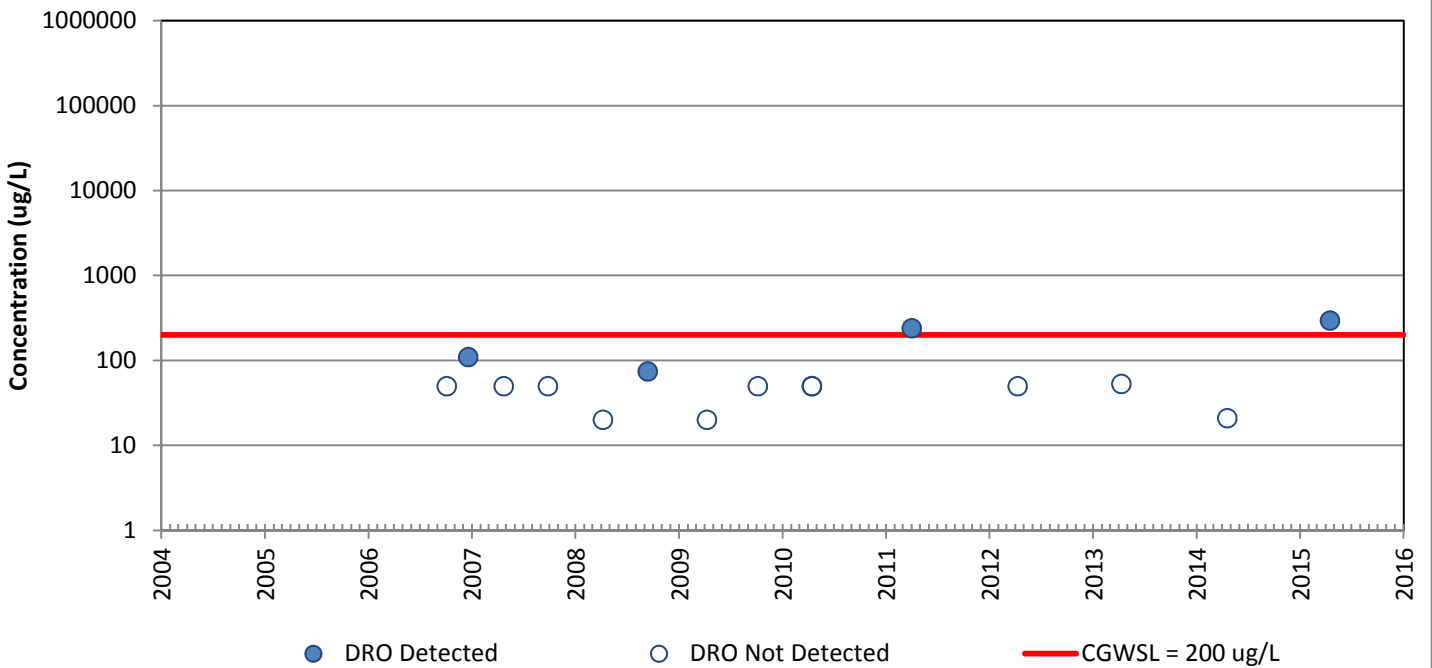


# MW-53

## GRO

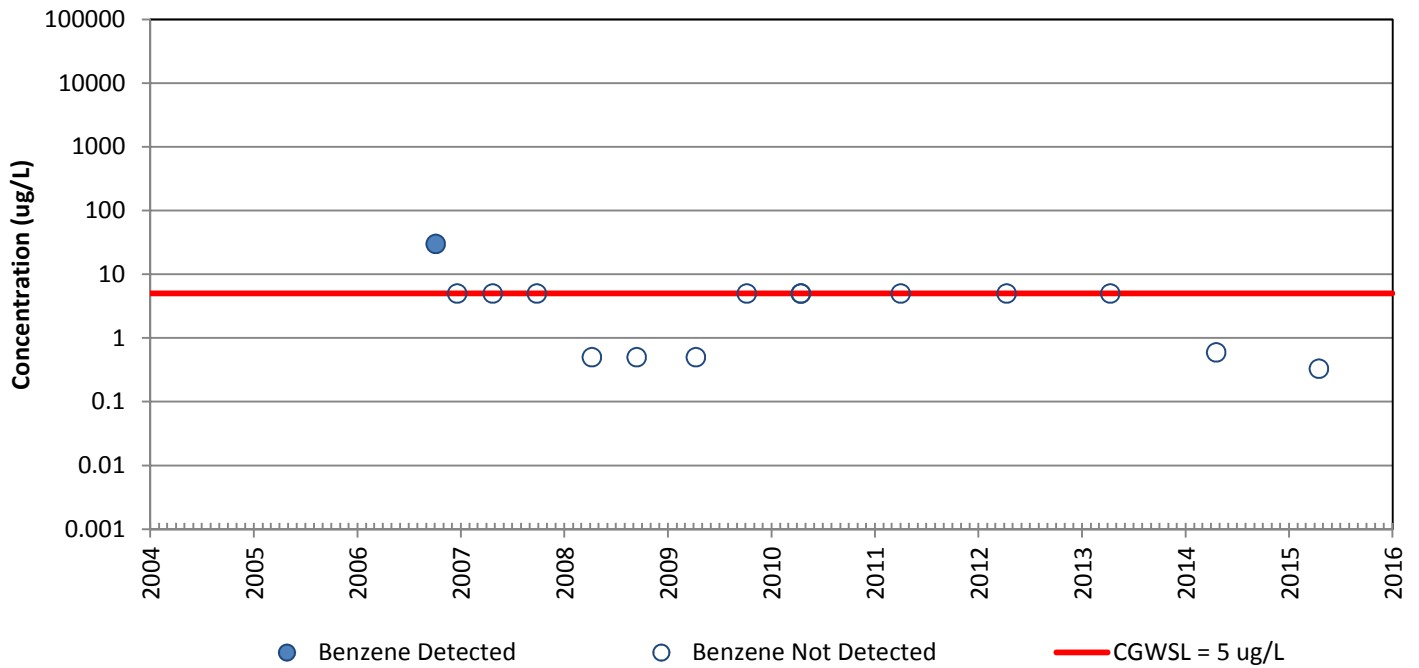


## DRO

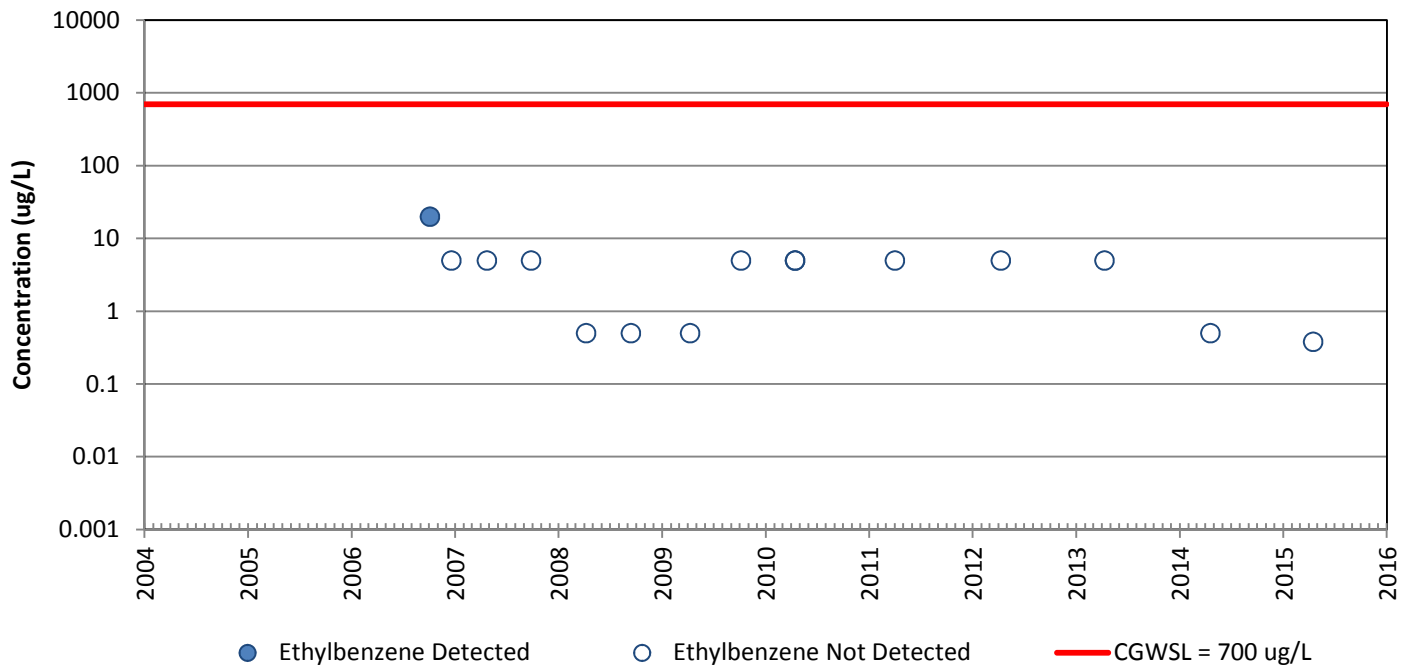


# MW-53

## Benzene

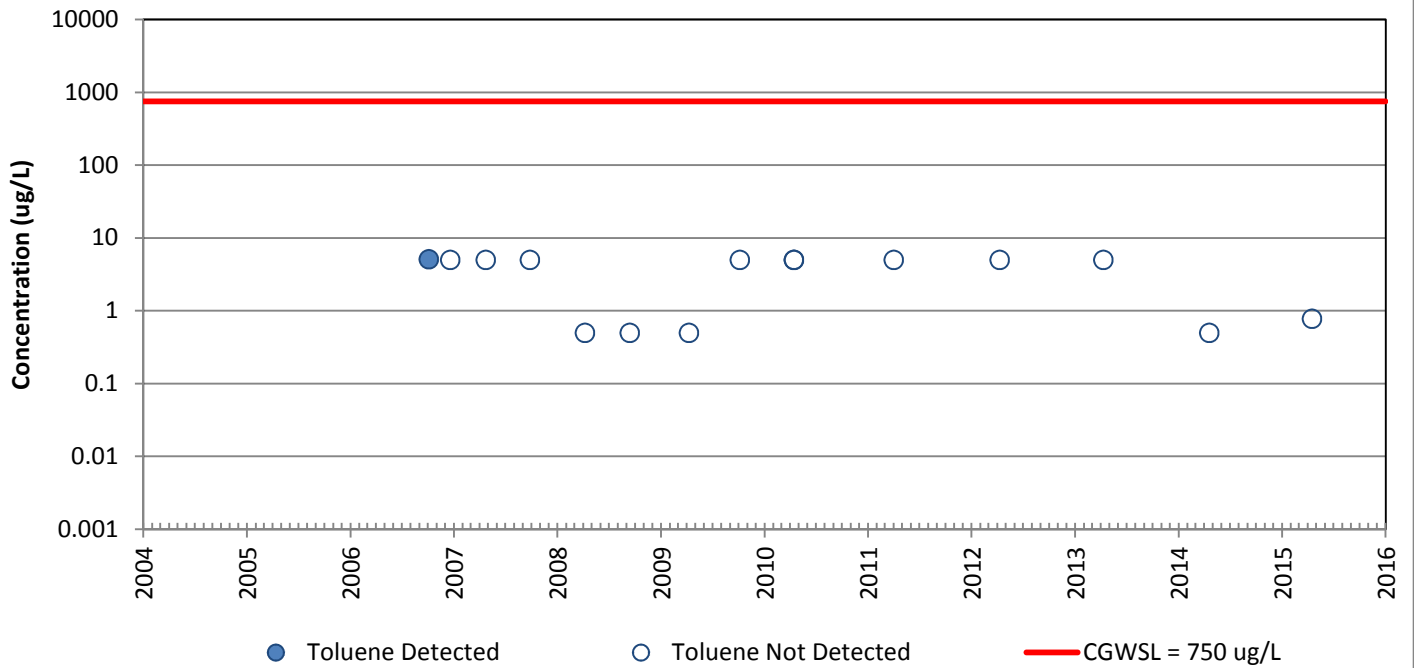


## Ethylbenzene

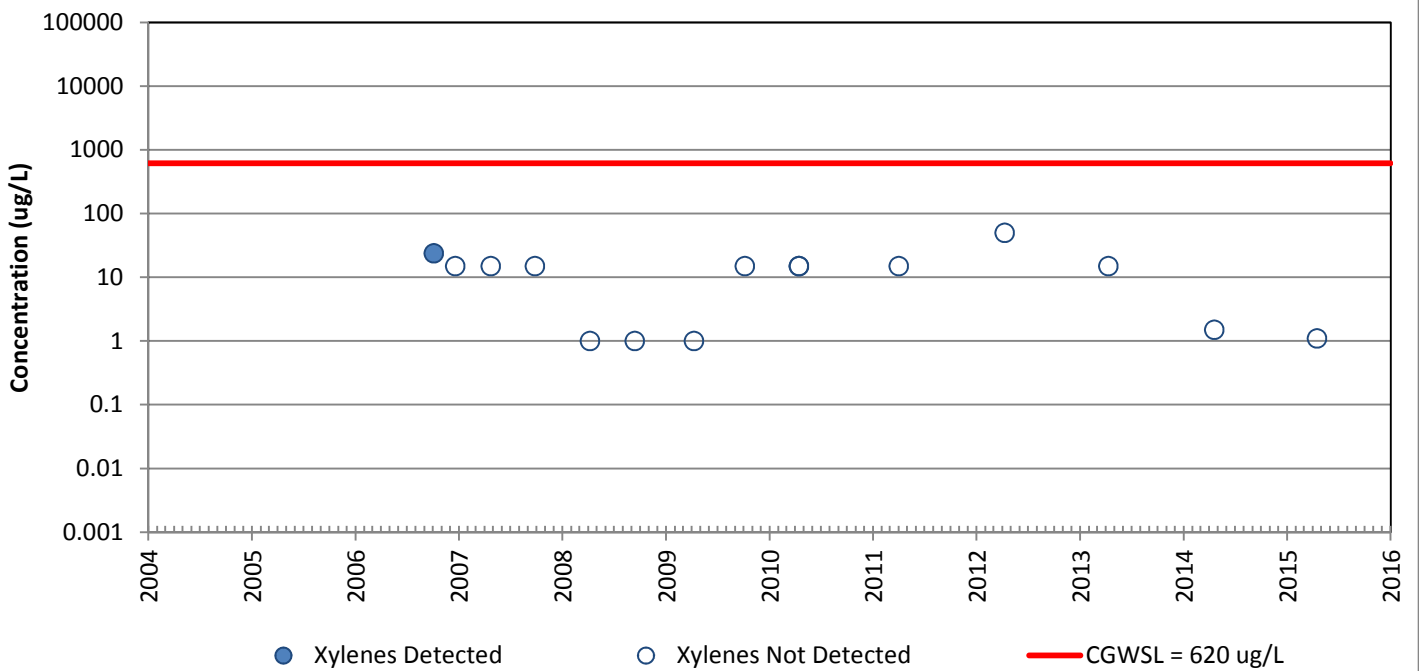


# MW-53

## Toluene

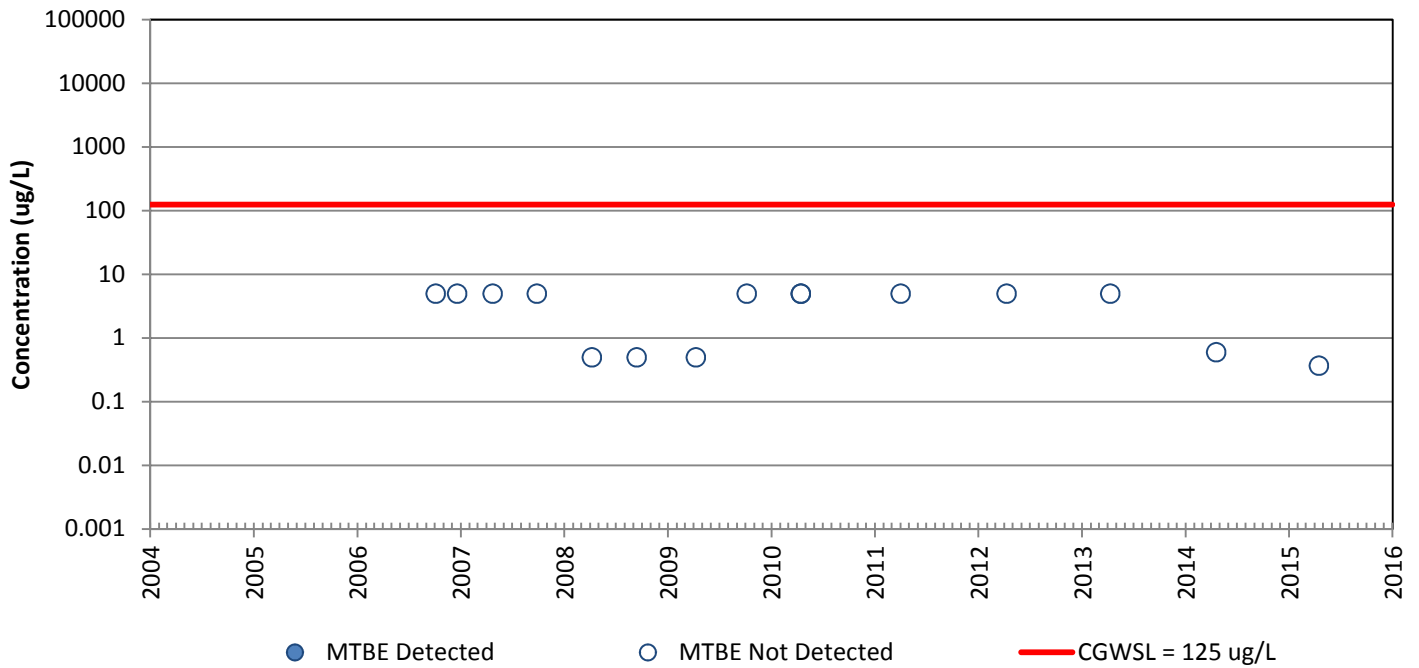


## Xylenes

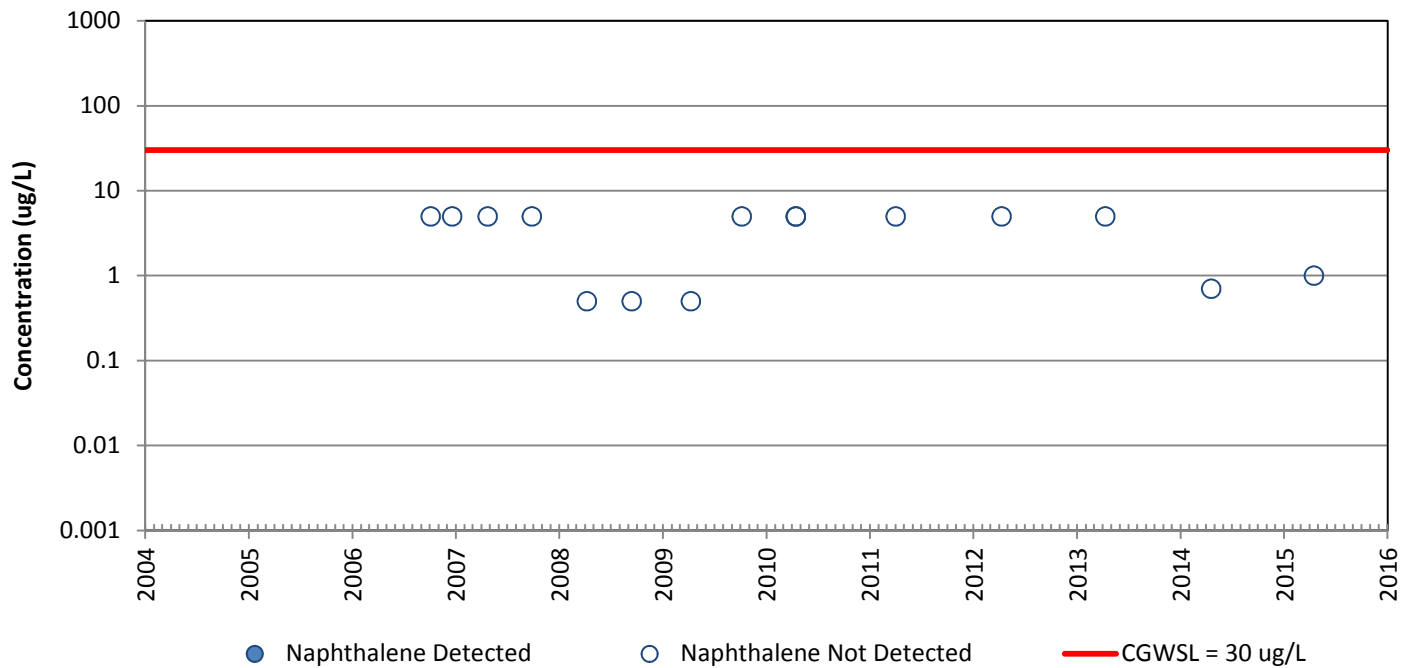


# MW-53

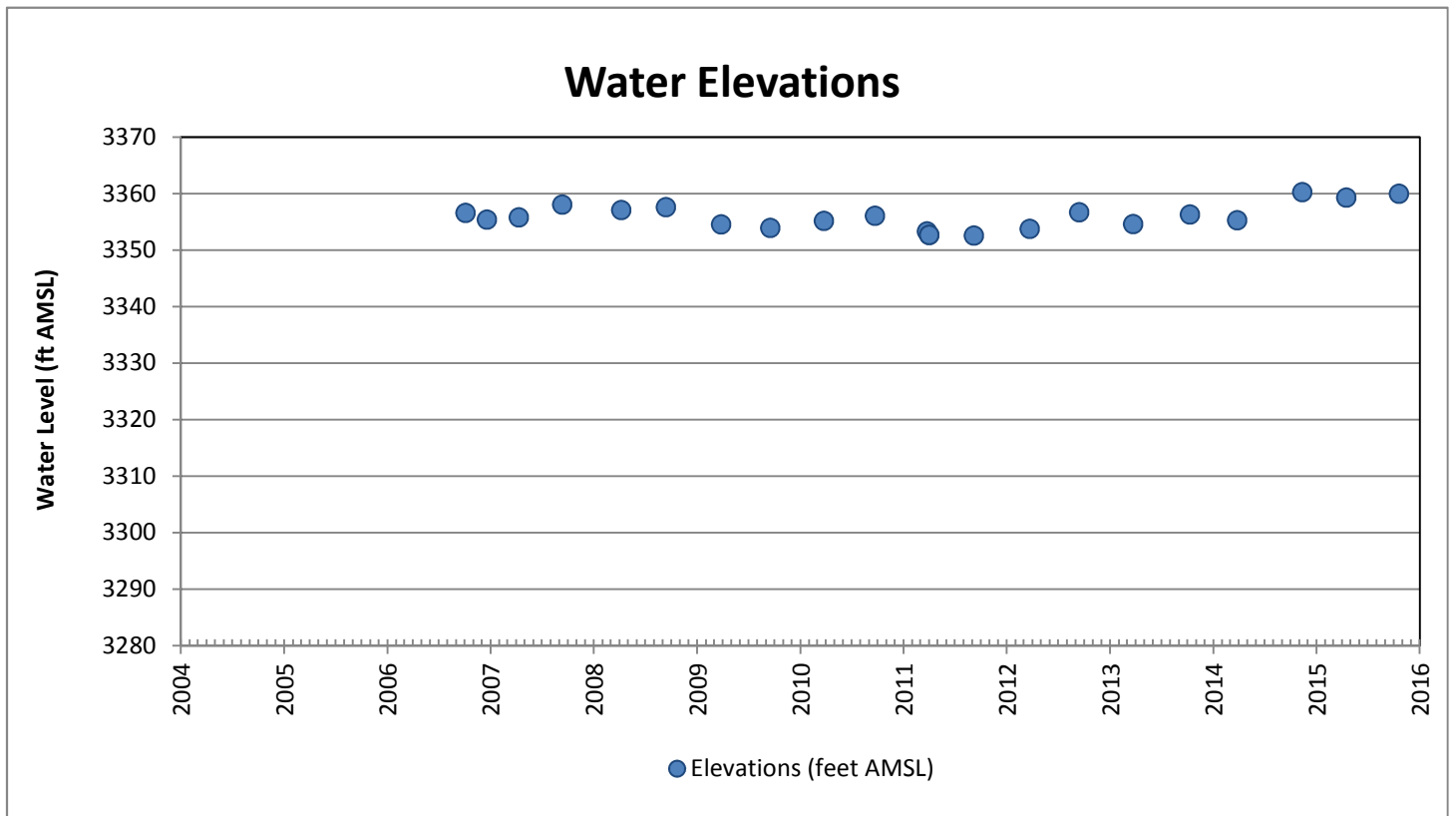
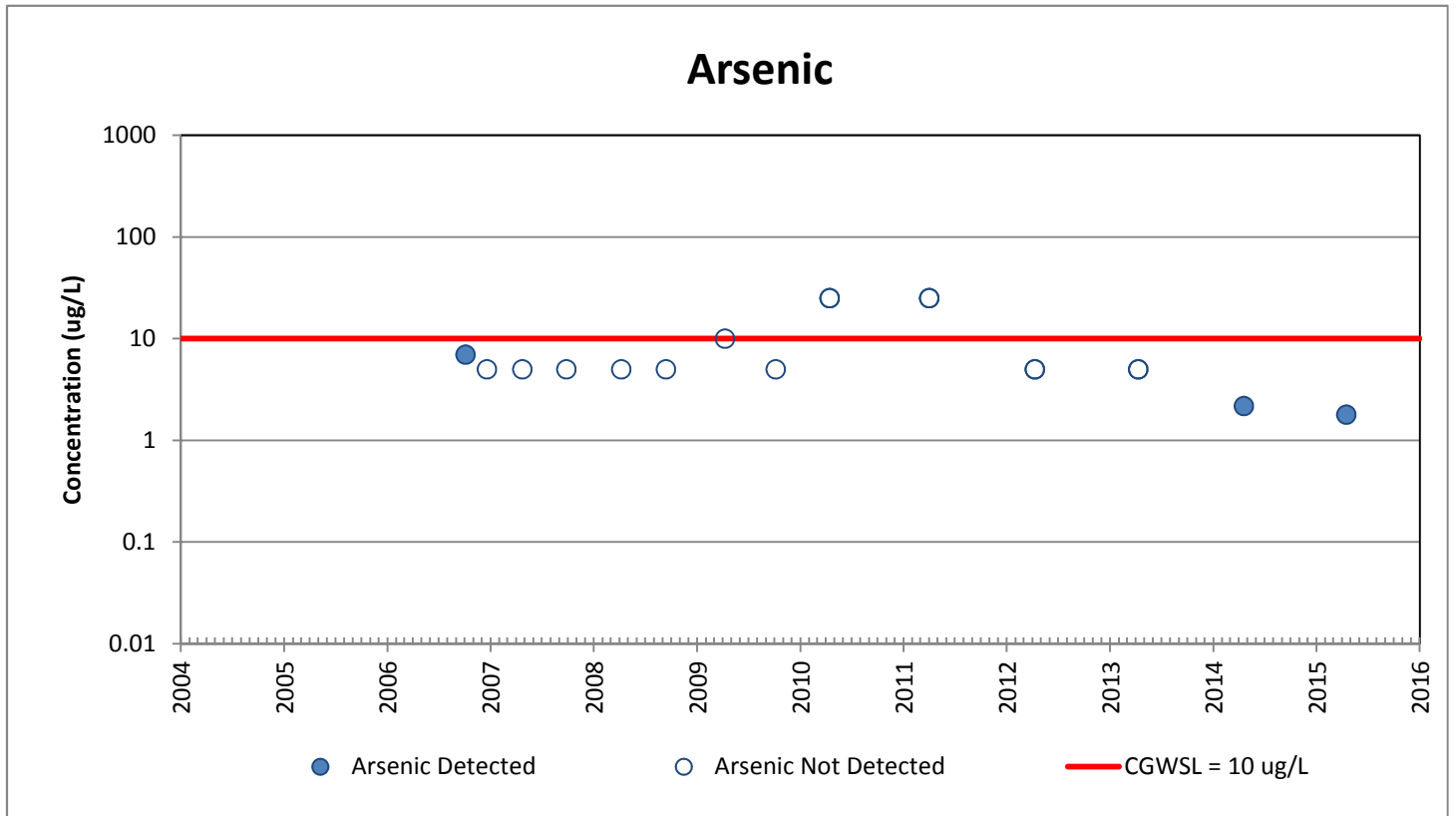
## MTBE



## Naphthalene

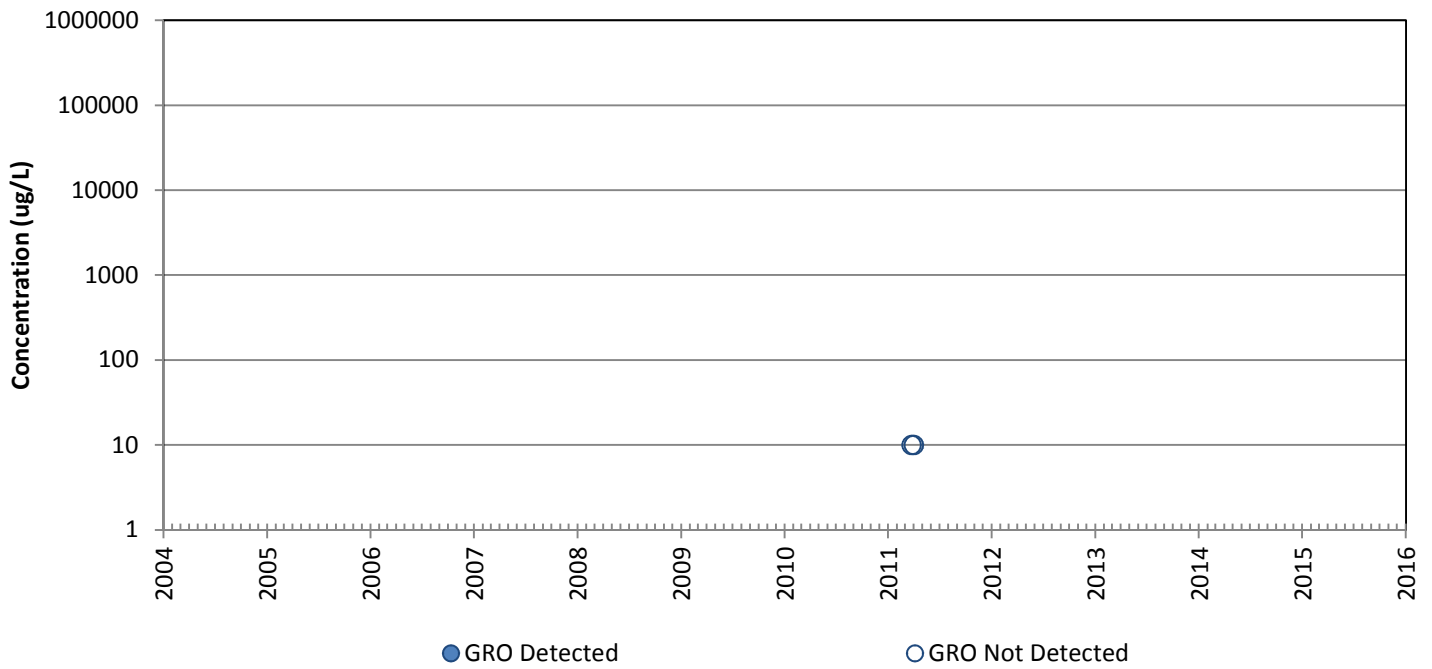


# MW-53

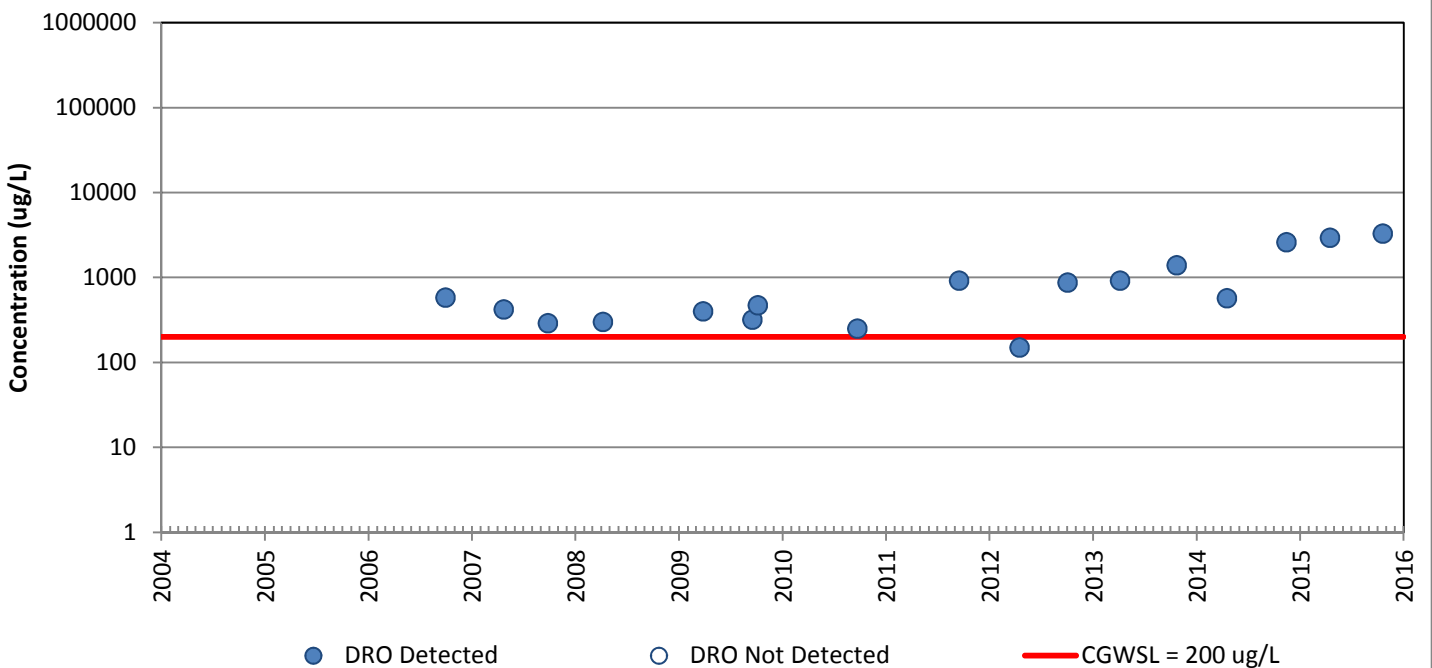


# MW-54A

## GRO

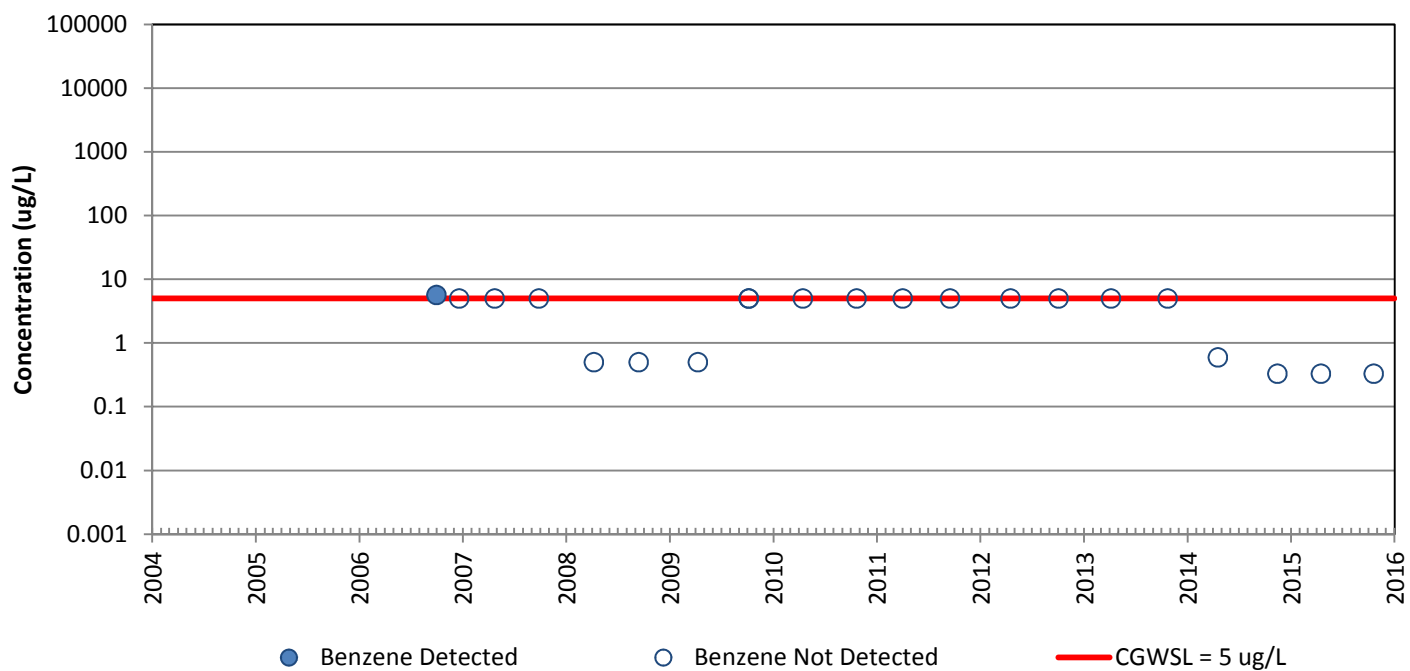


## DRO

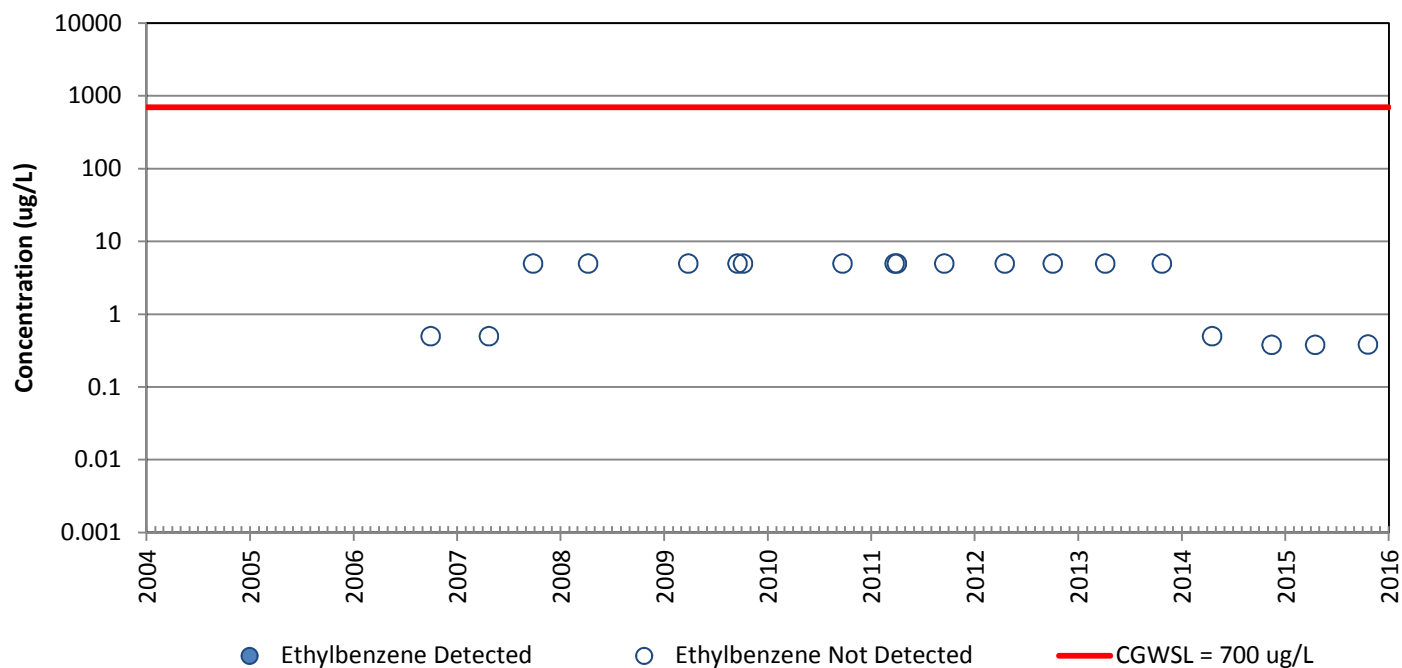


# MW-54A

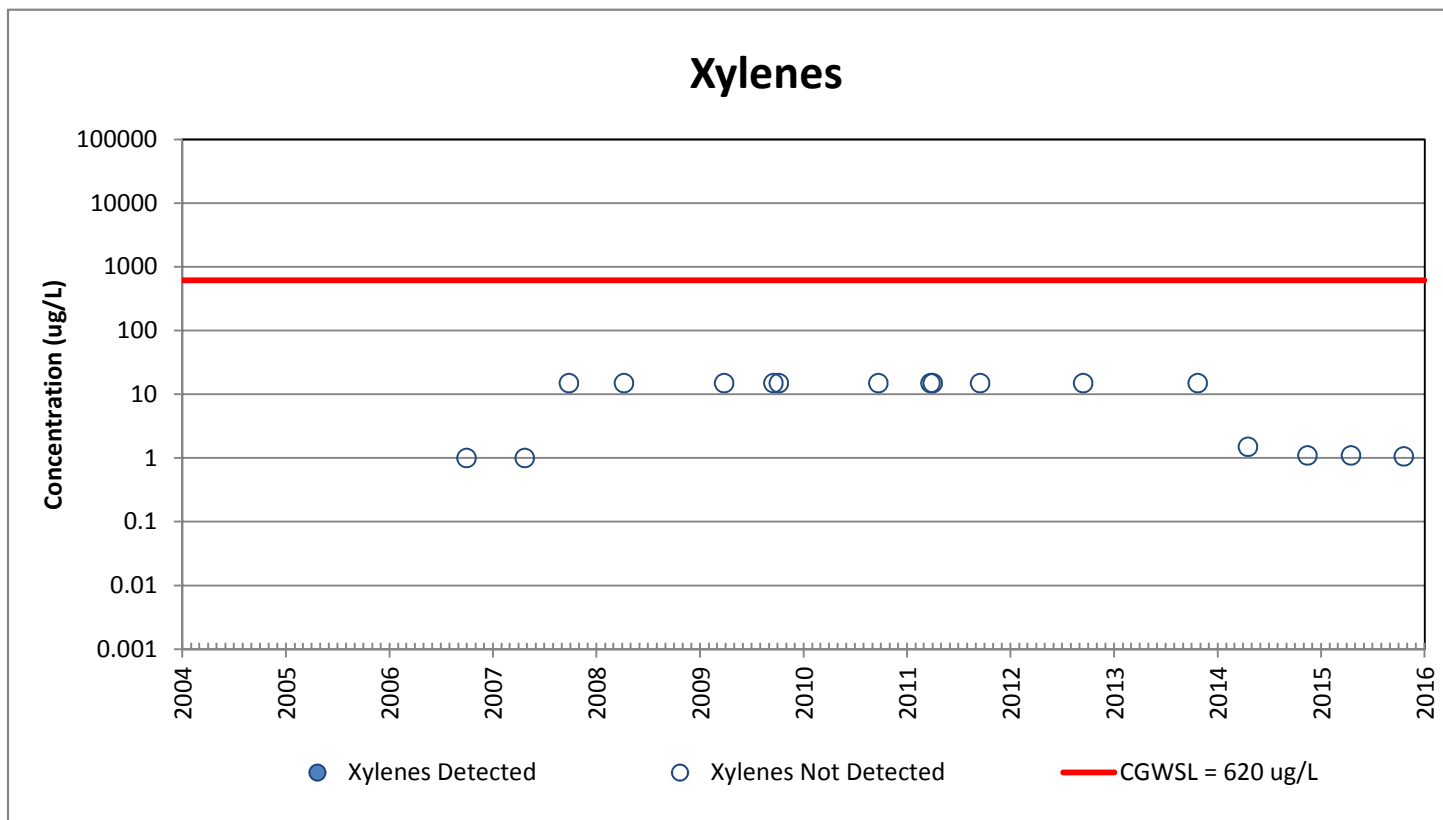
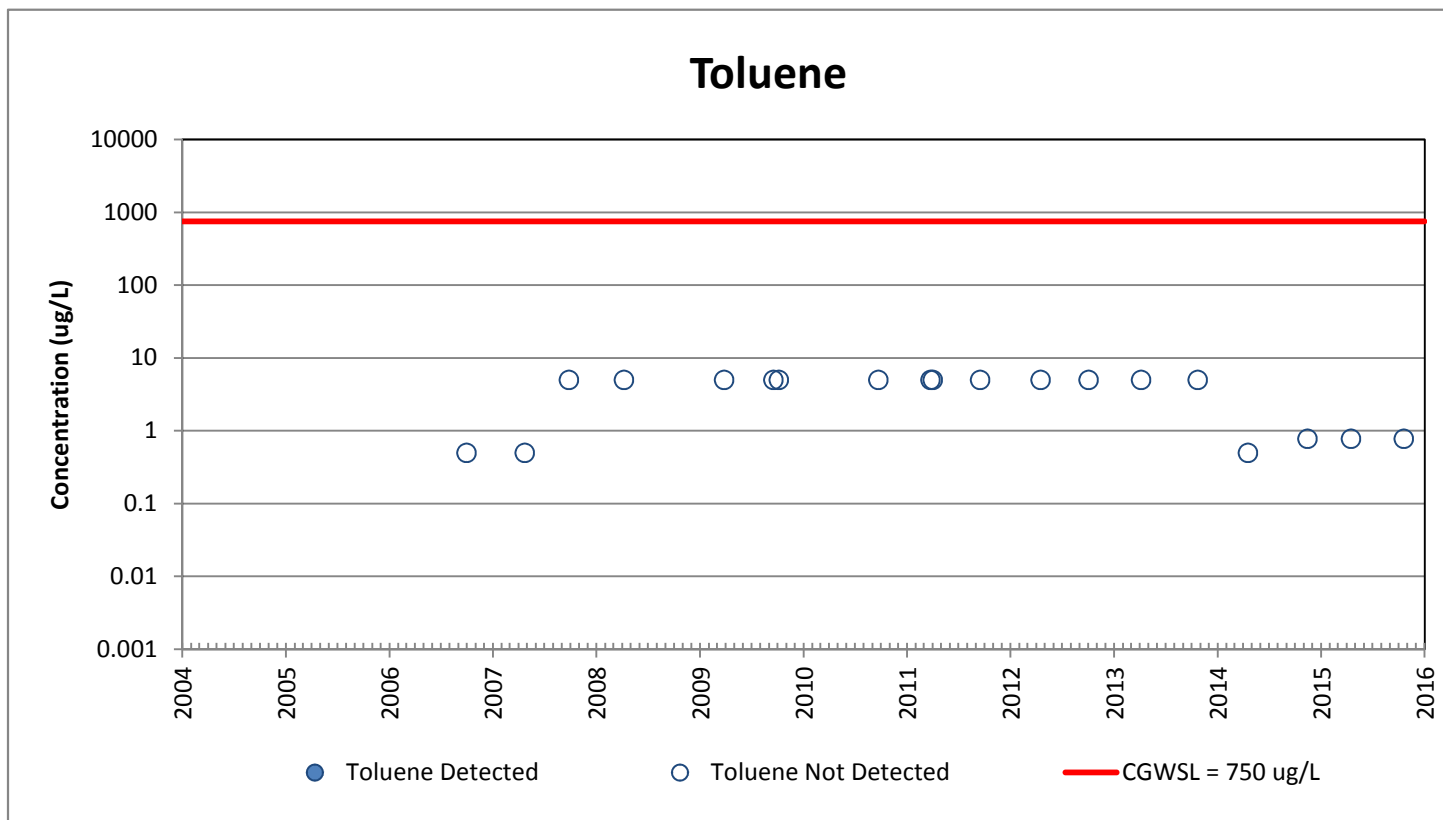
## Benzene



## Ethylbenzene

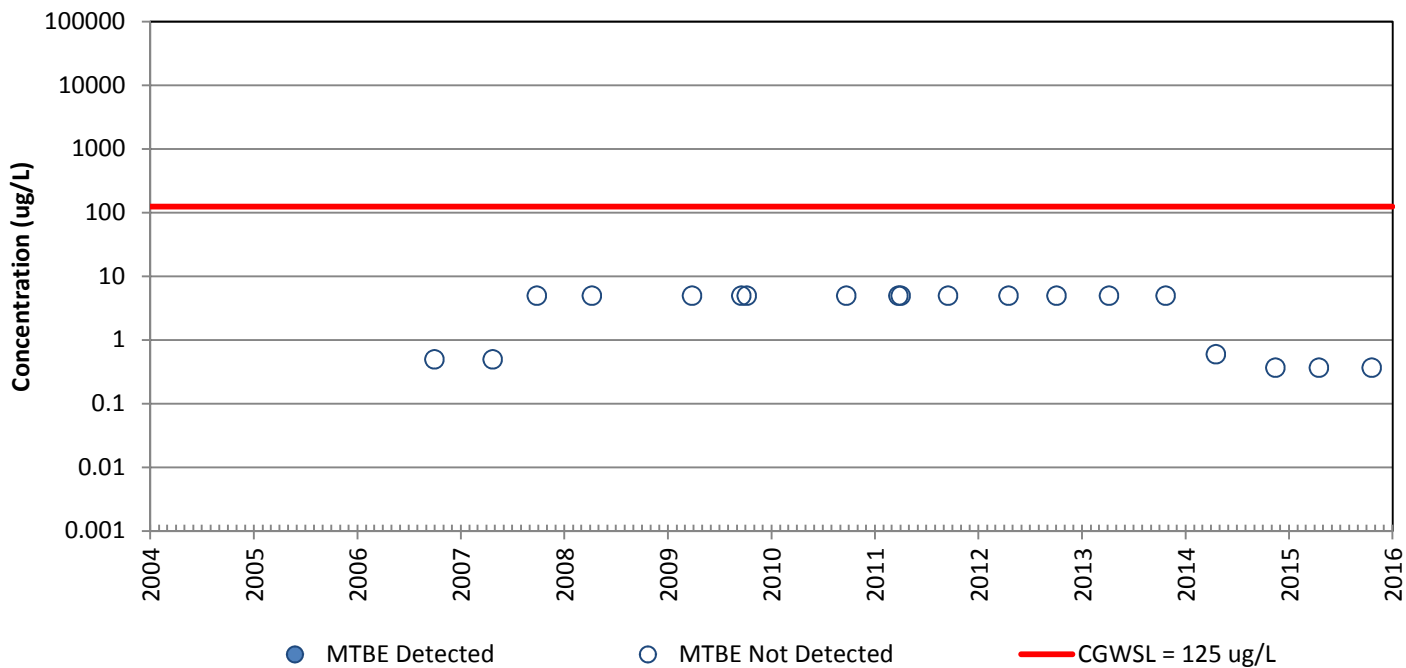


# MW-54A

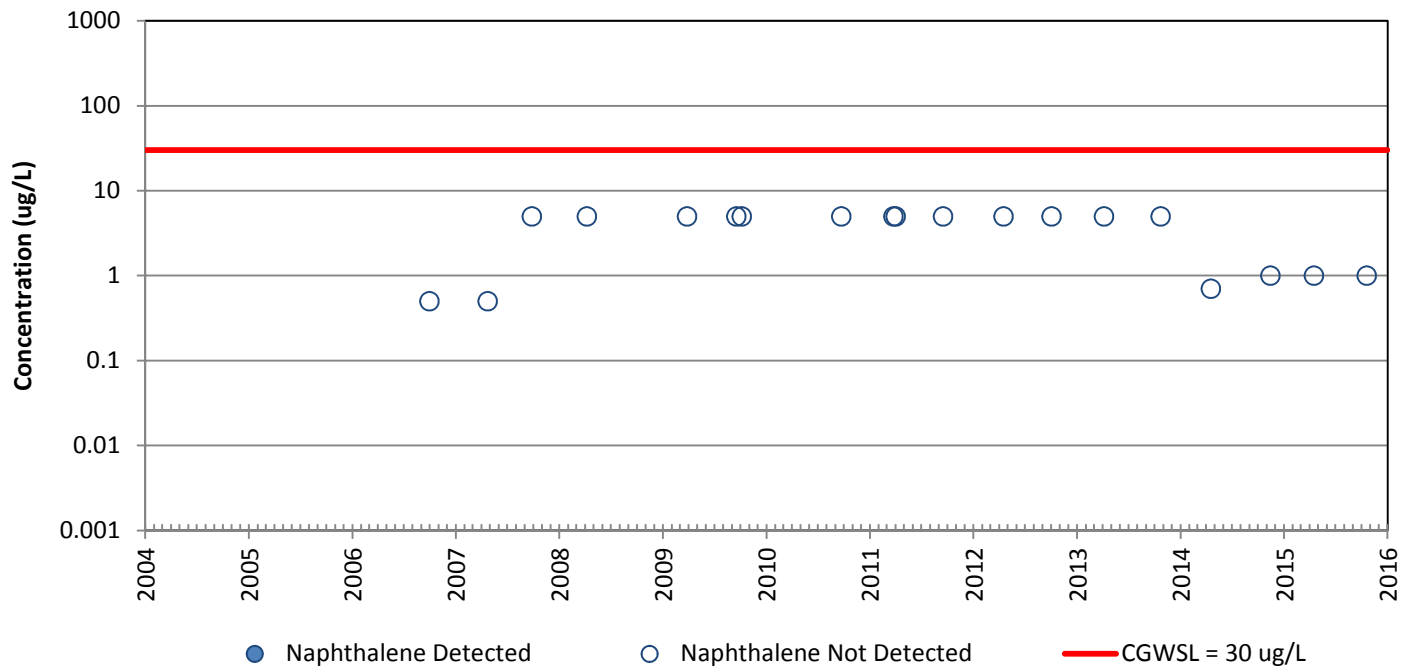


# MW-54A

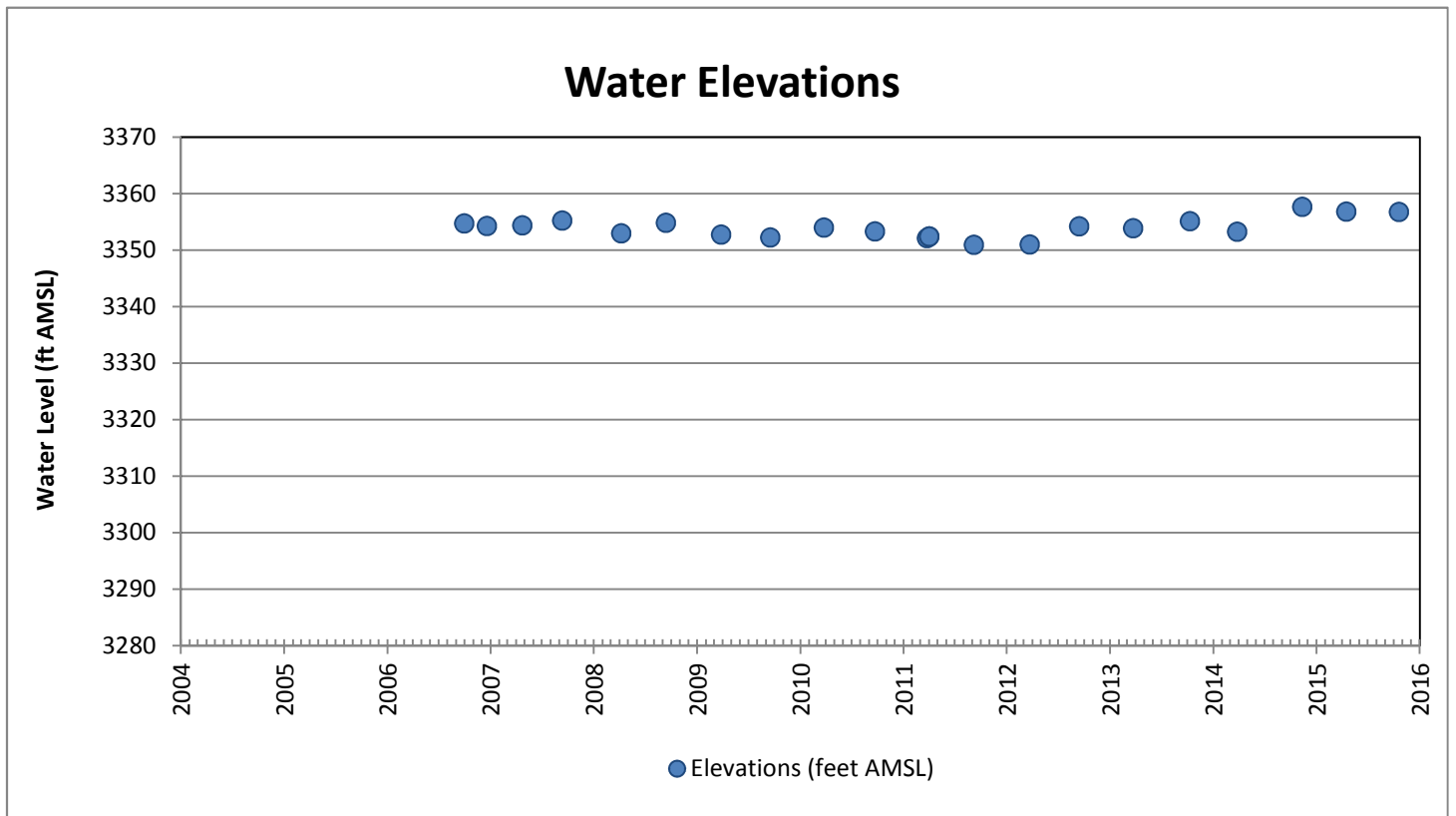
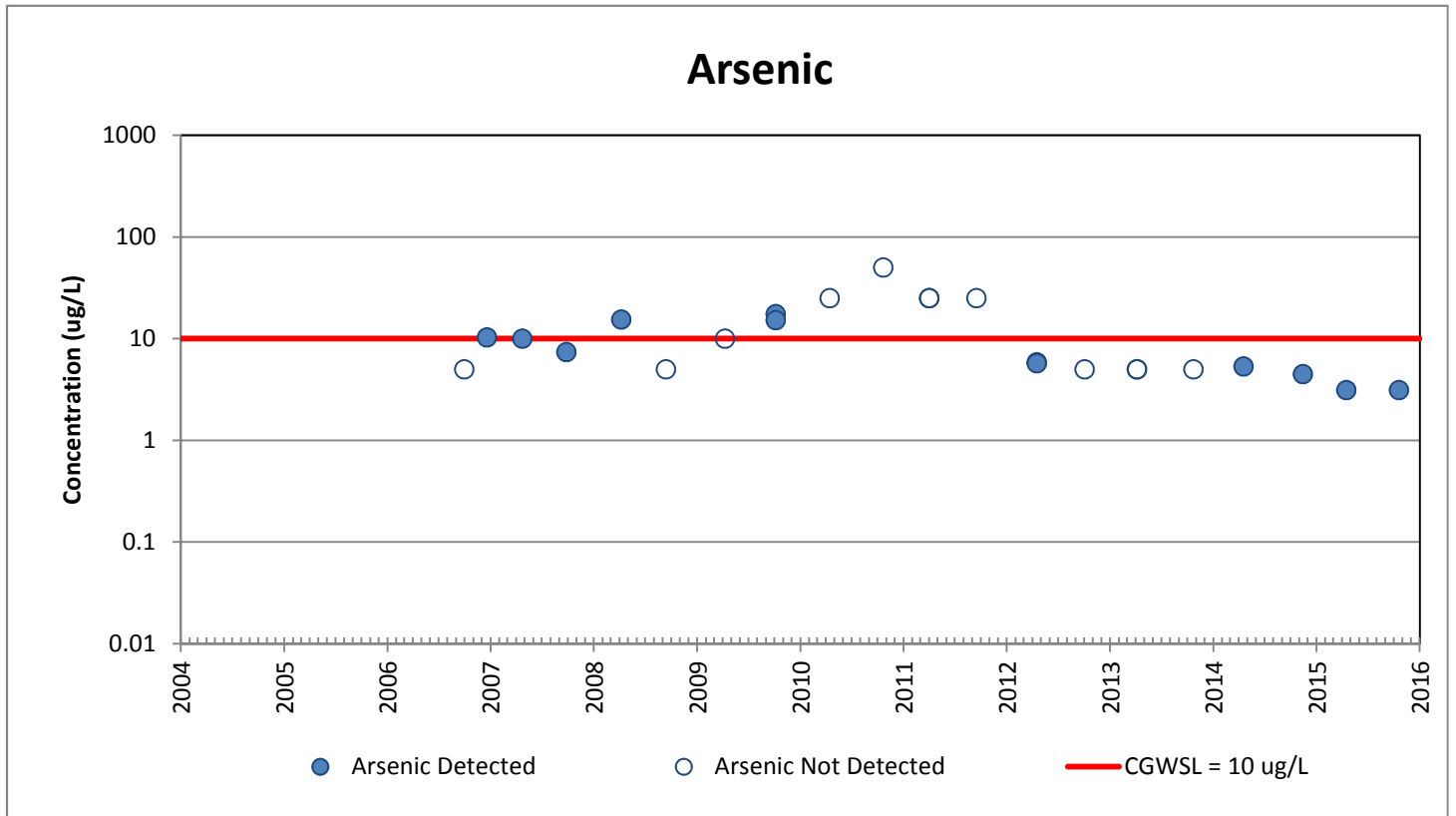
## MTBE



## Naphthalene

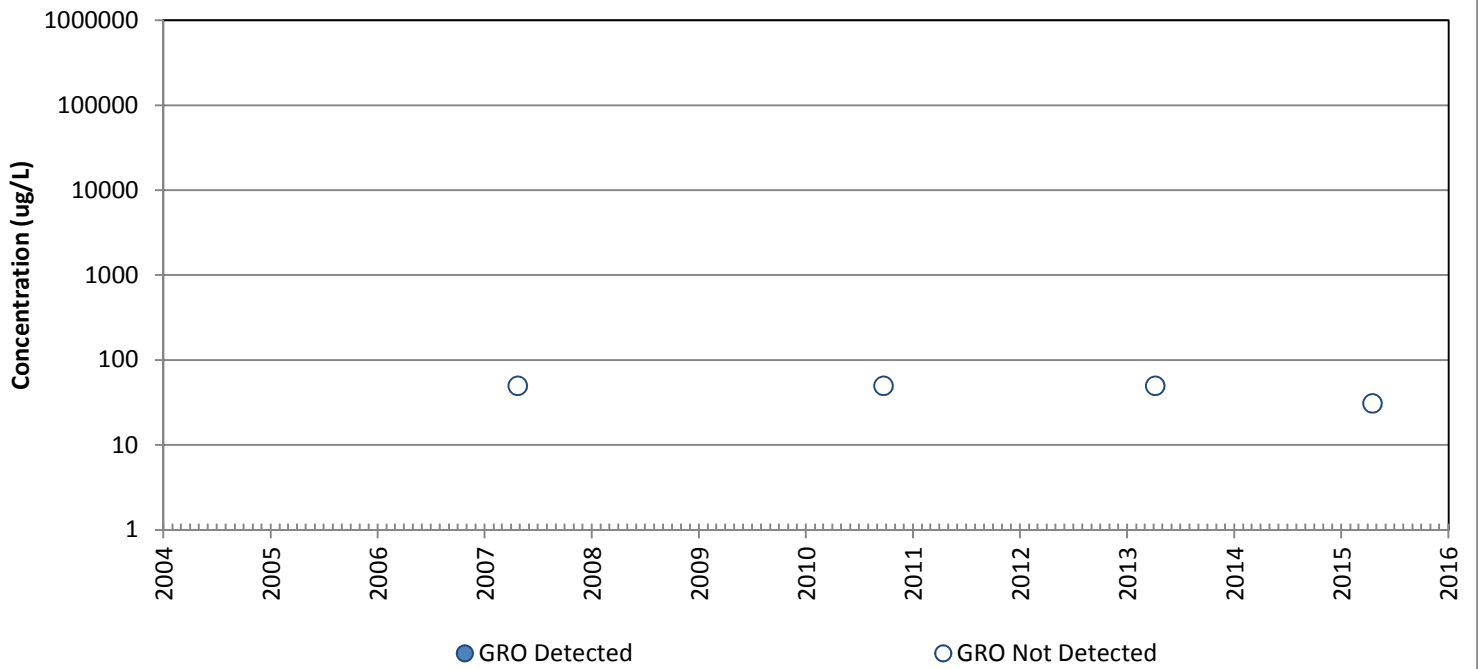


# MW-54A

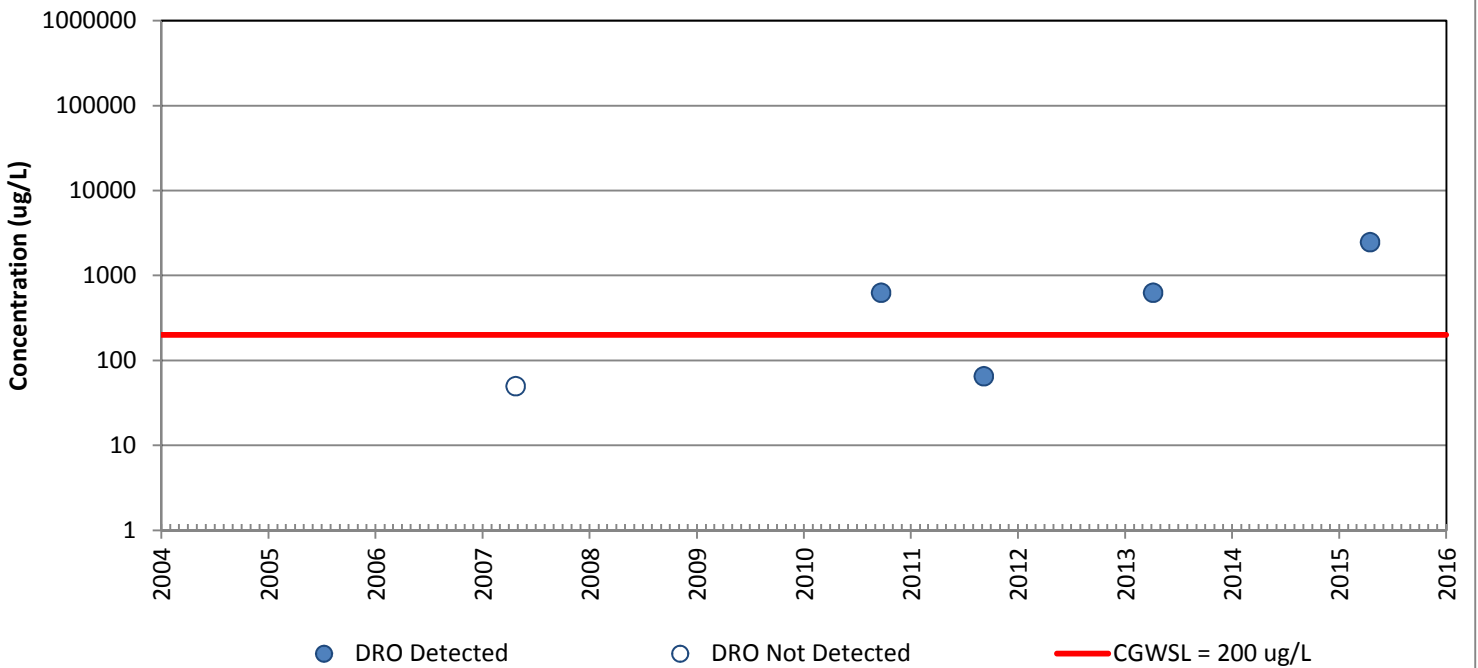


# MW-54B

## GRO

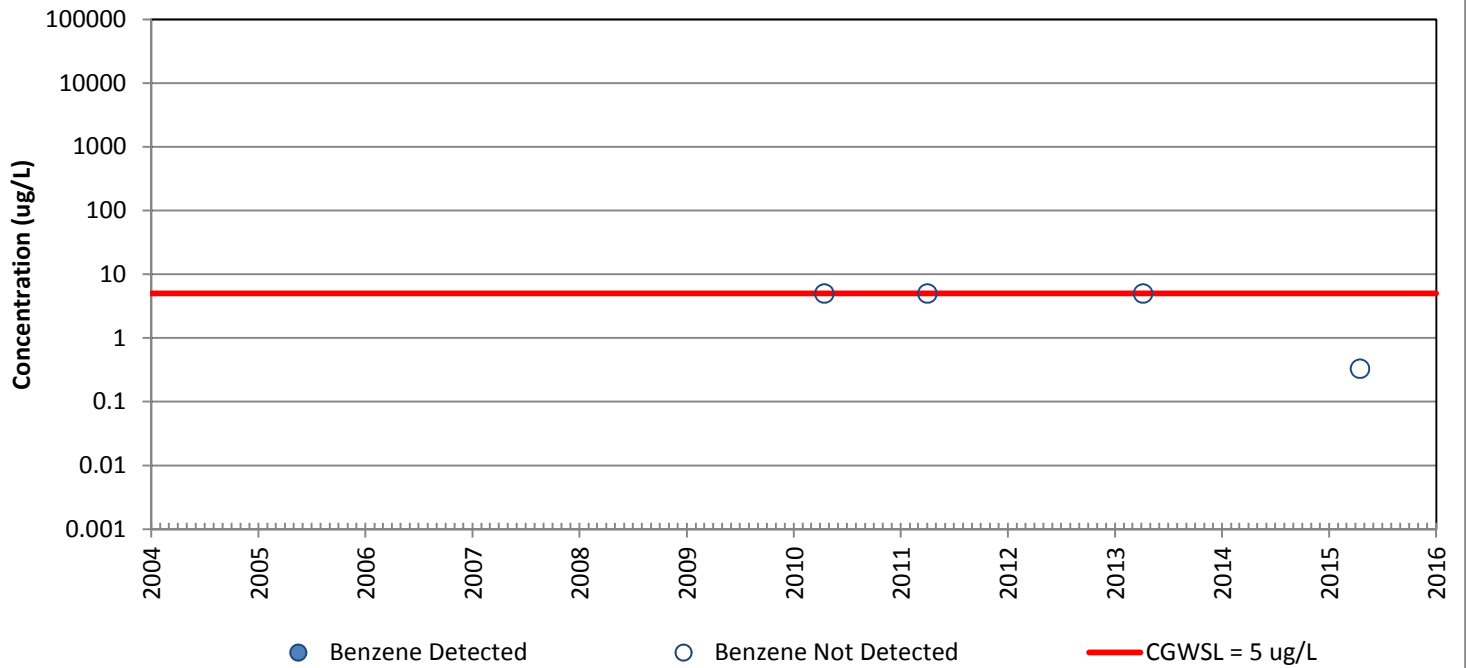


## DRO

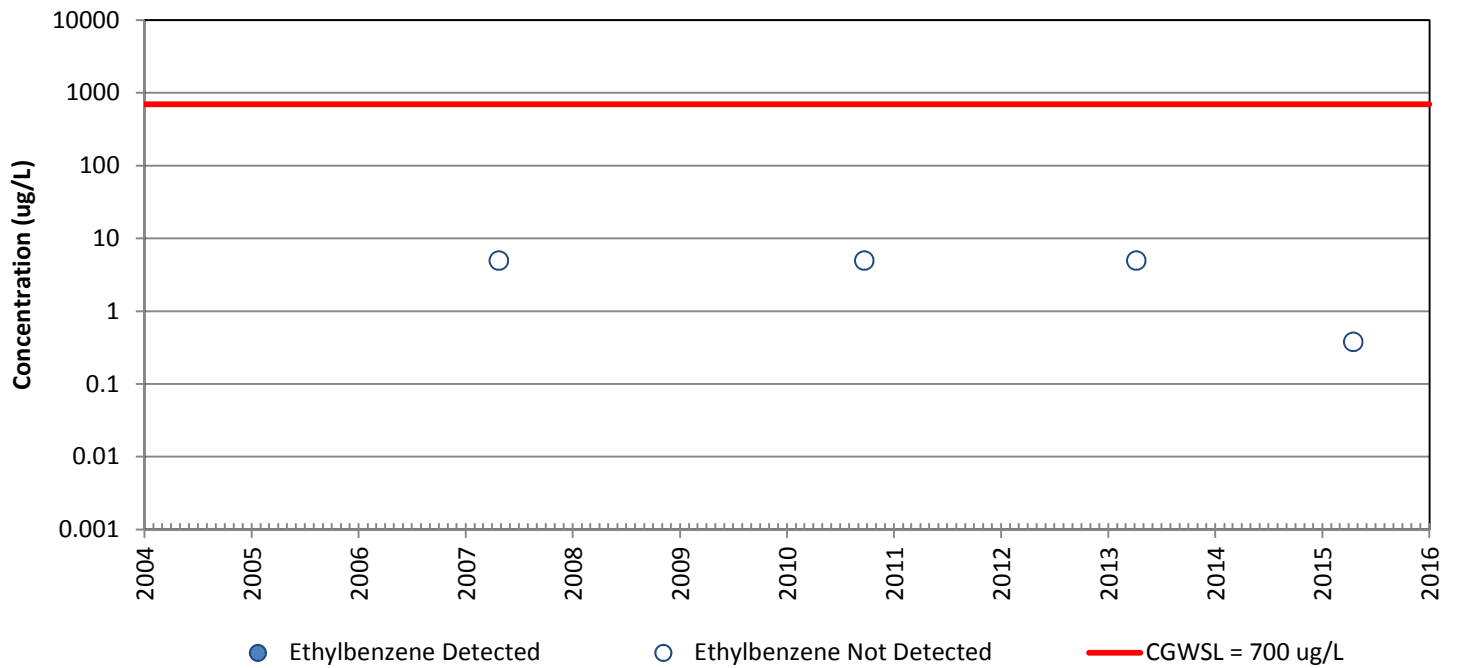


# MW-54B

## Benzene

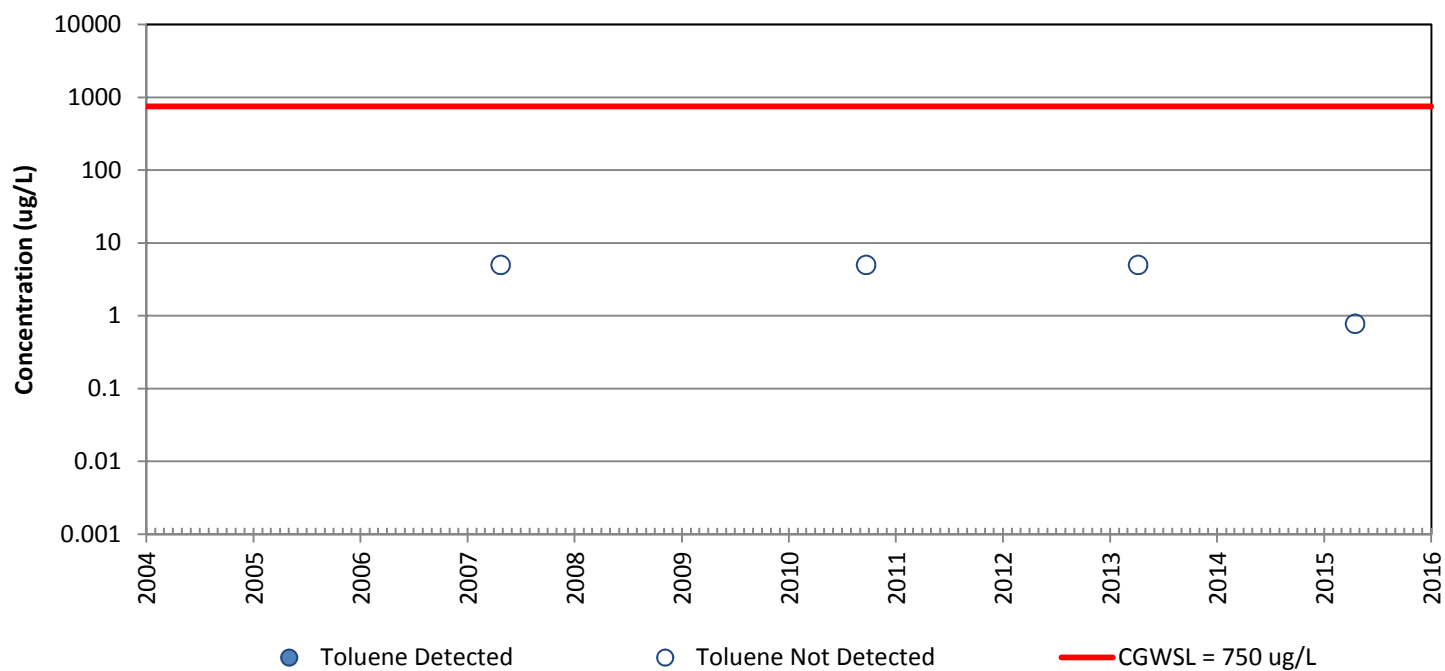


## Ethylbenzene

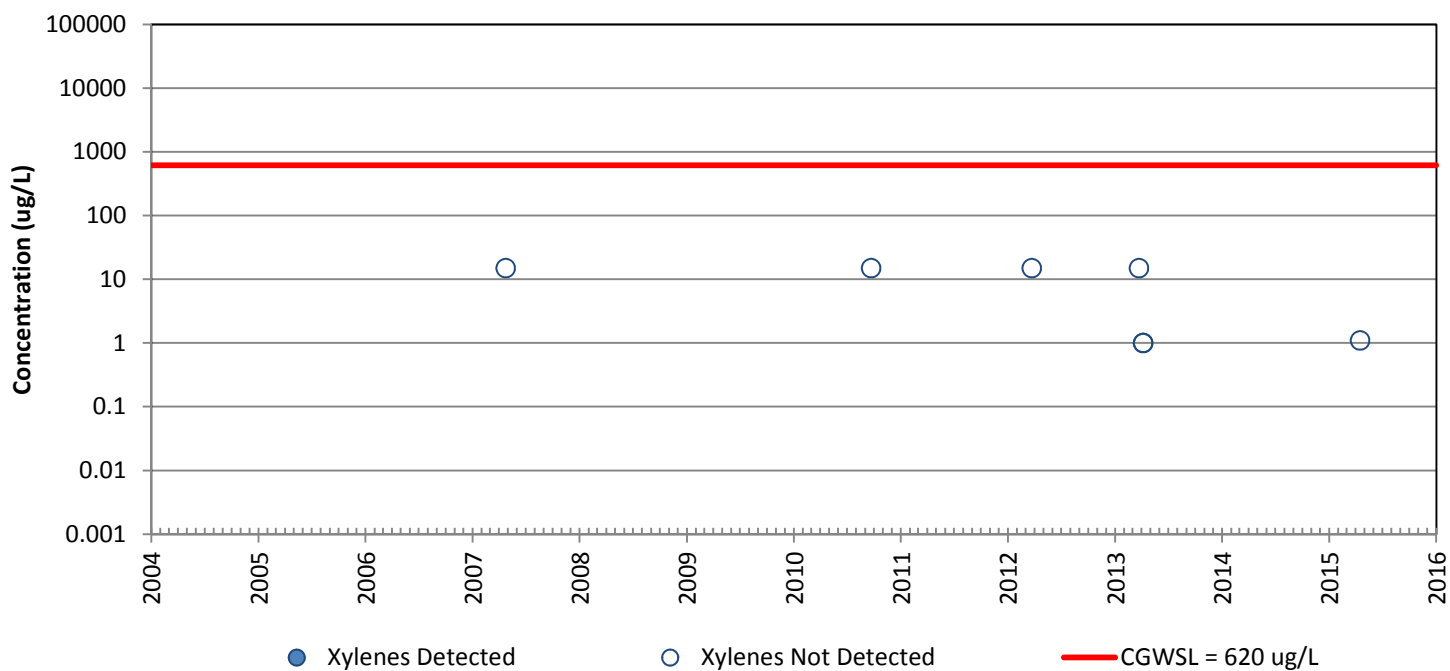


# MW-54B

## Toluene

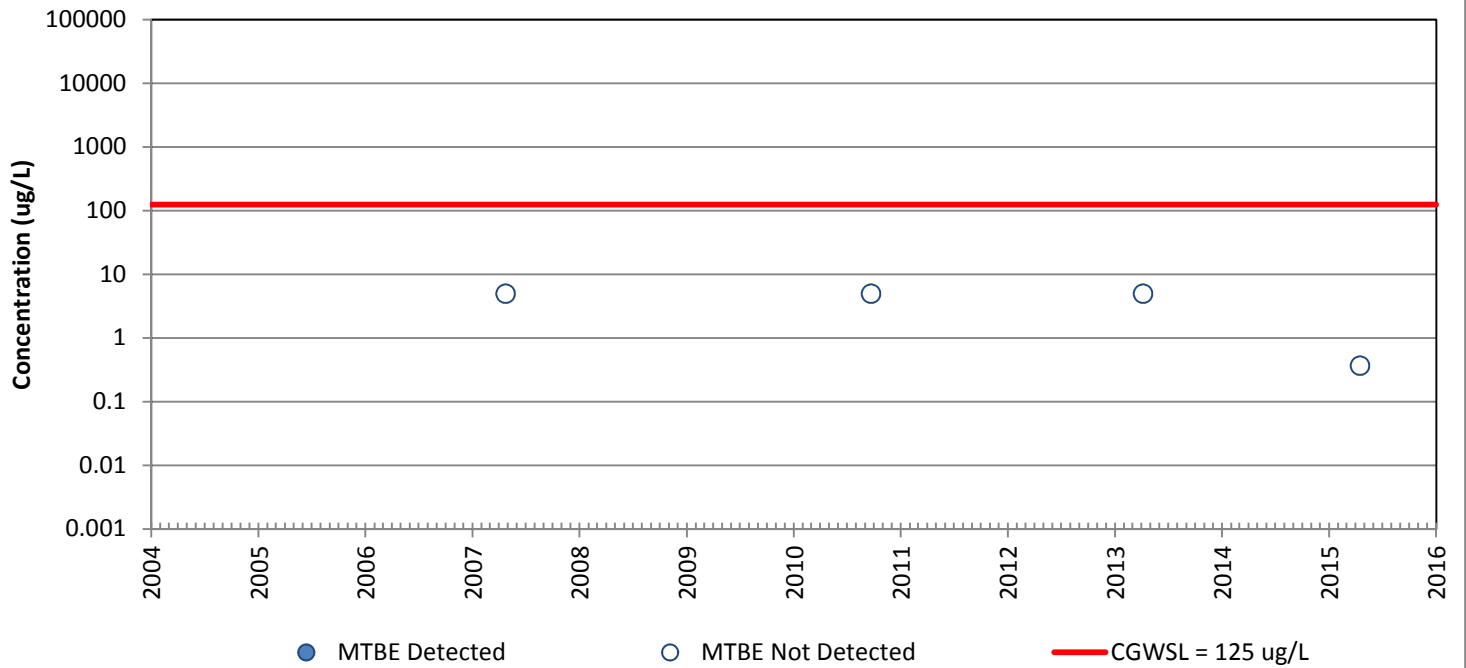


## Xylenes

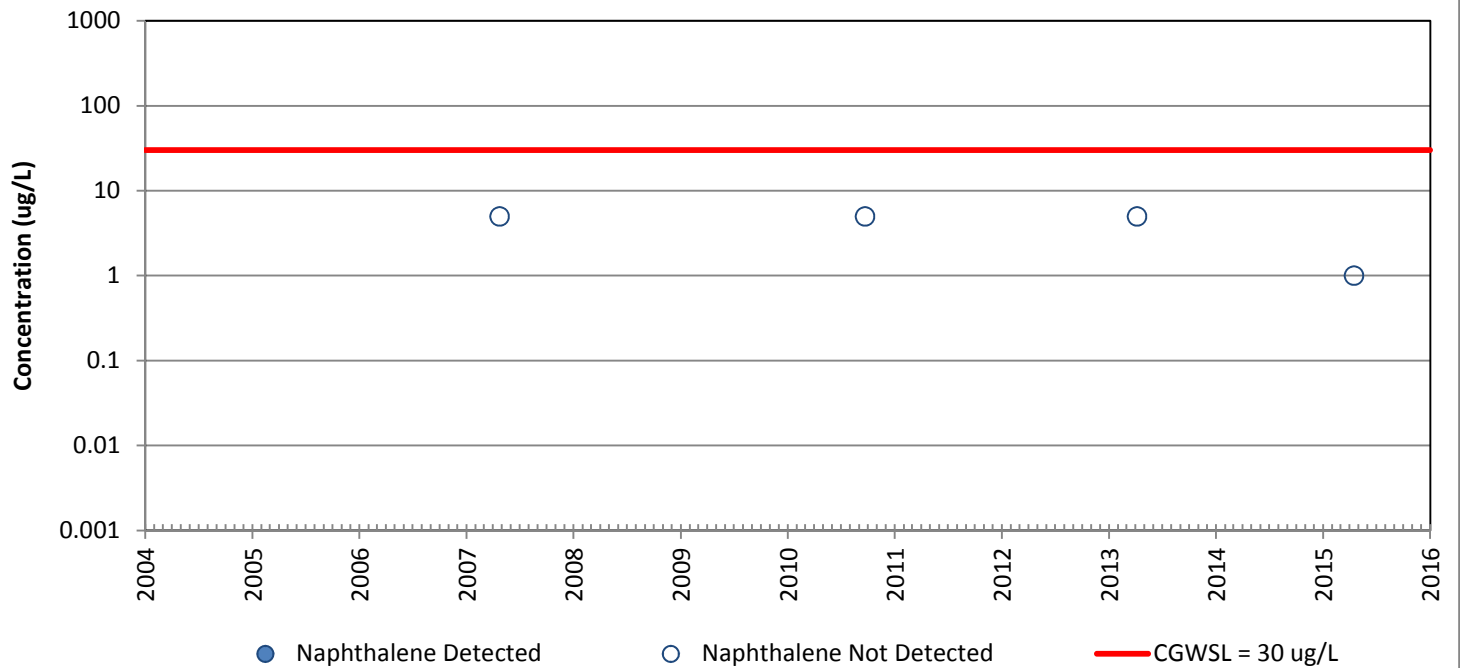


# MW-54B

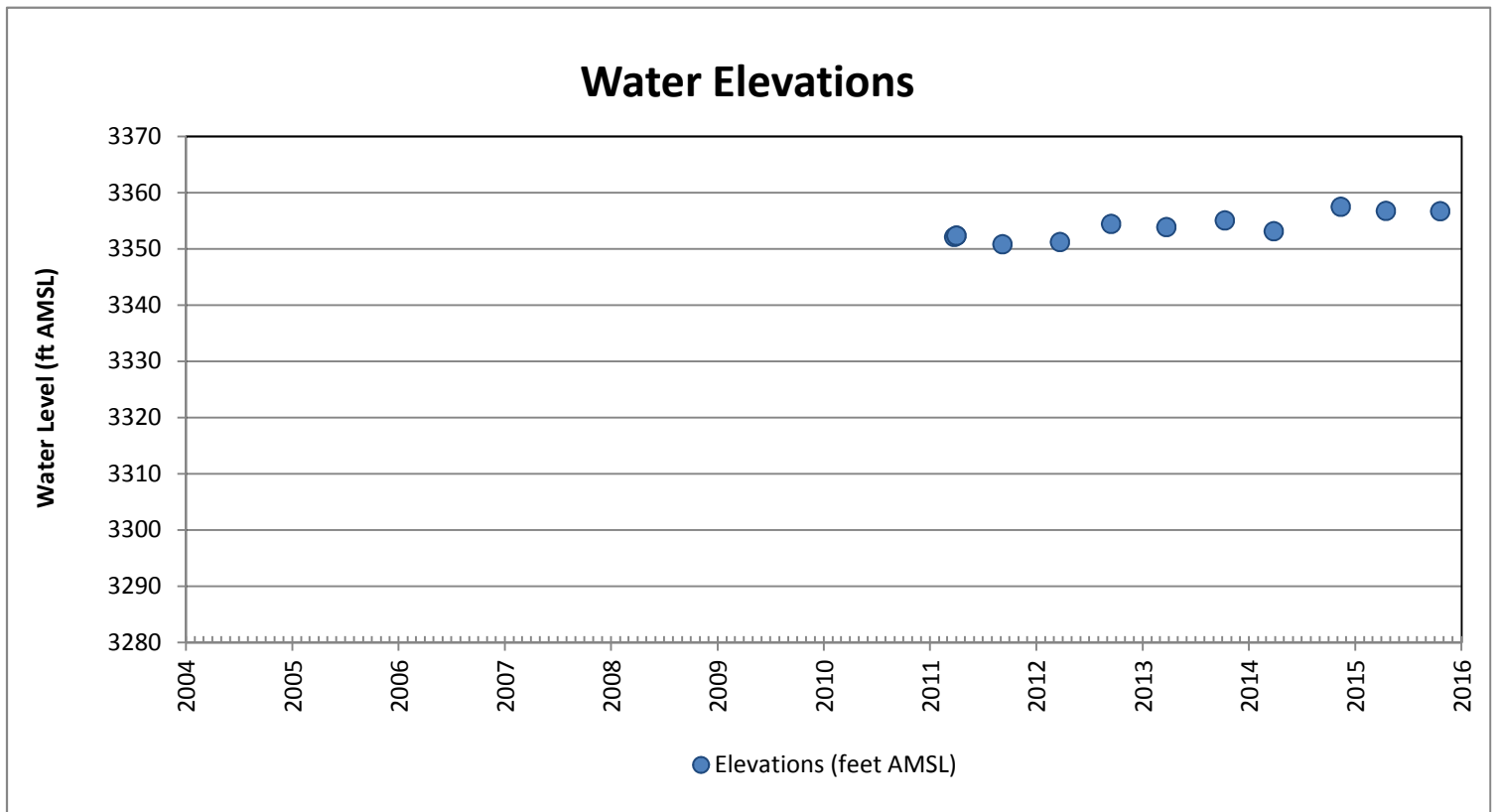
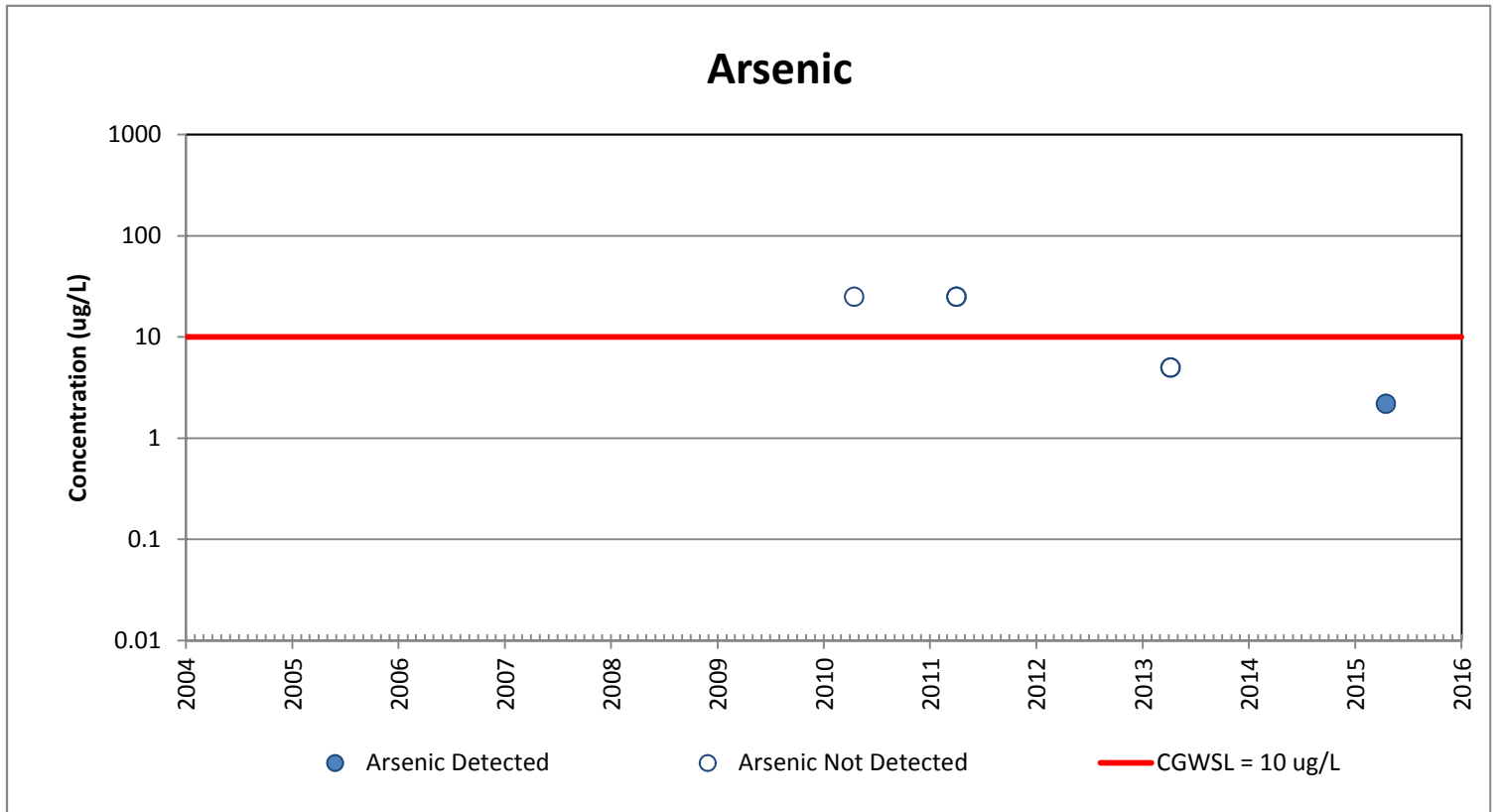
## MTBE



## Naphthalene

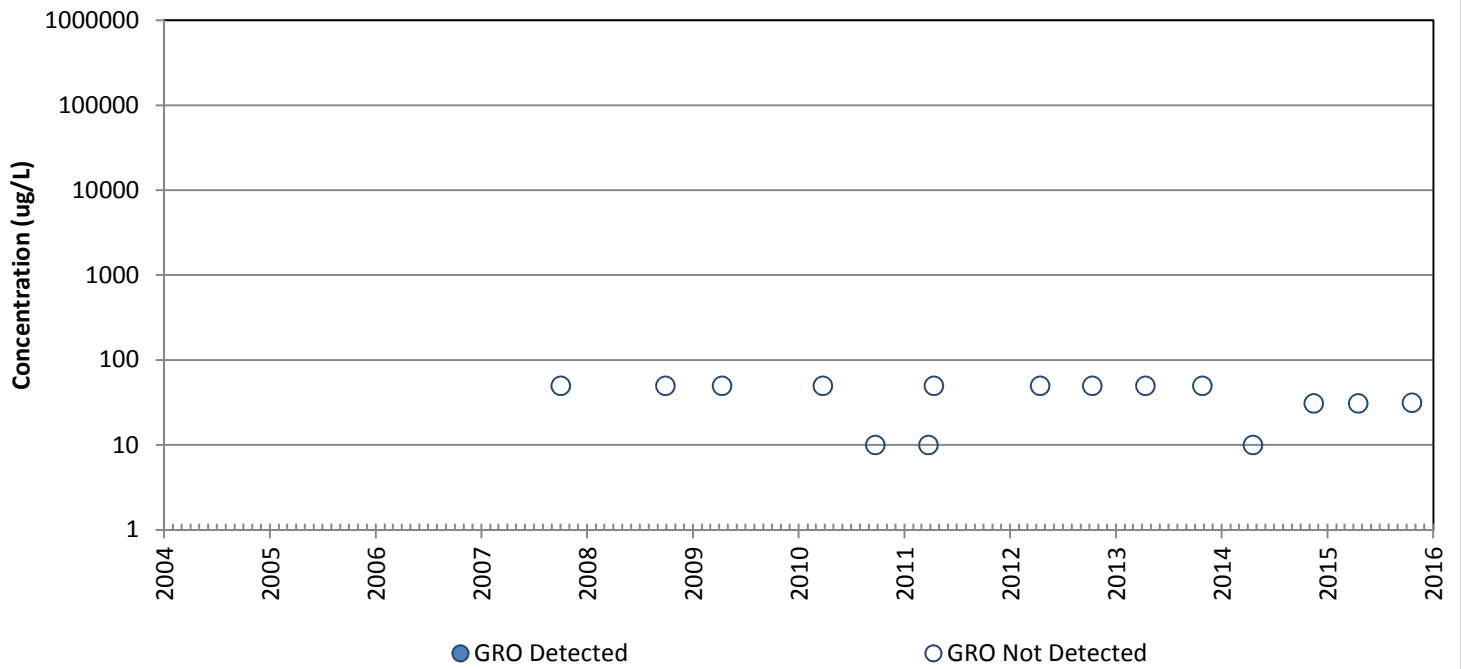


# MW-54B

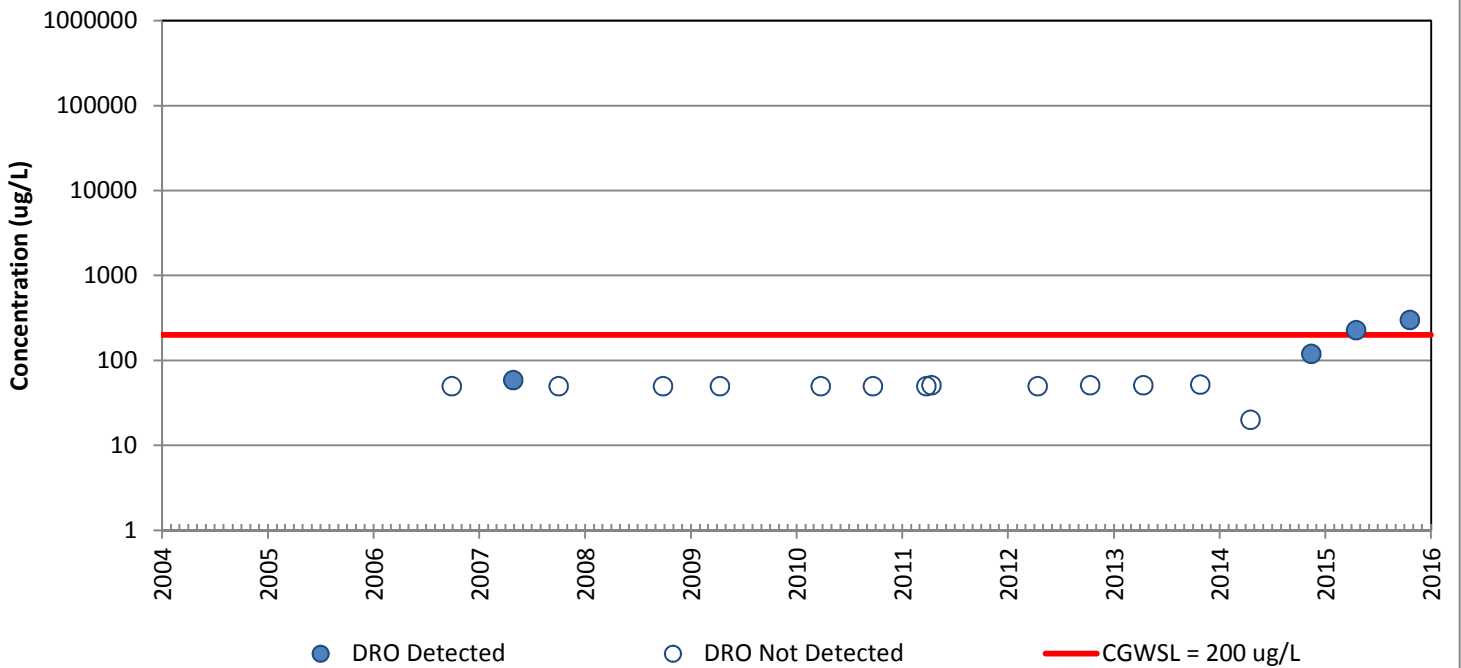


# MW-55

## GRO

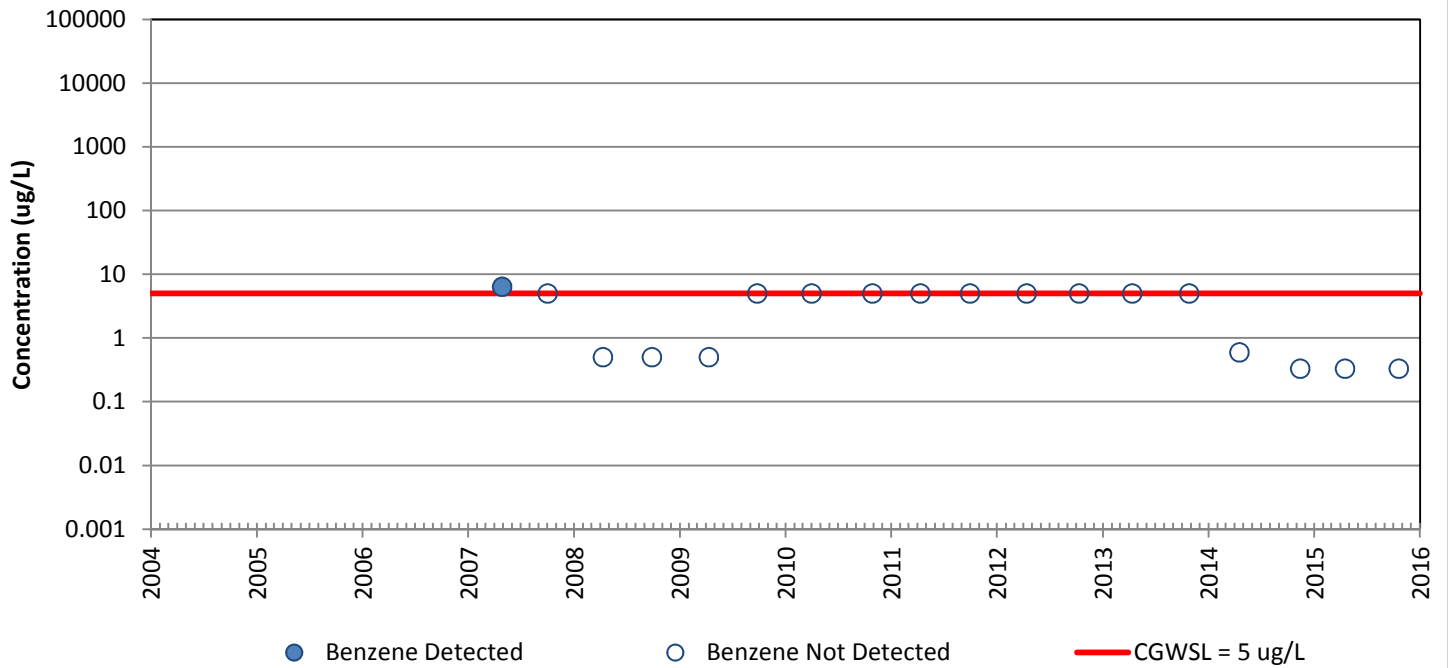


## DRO

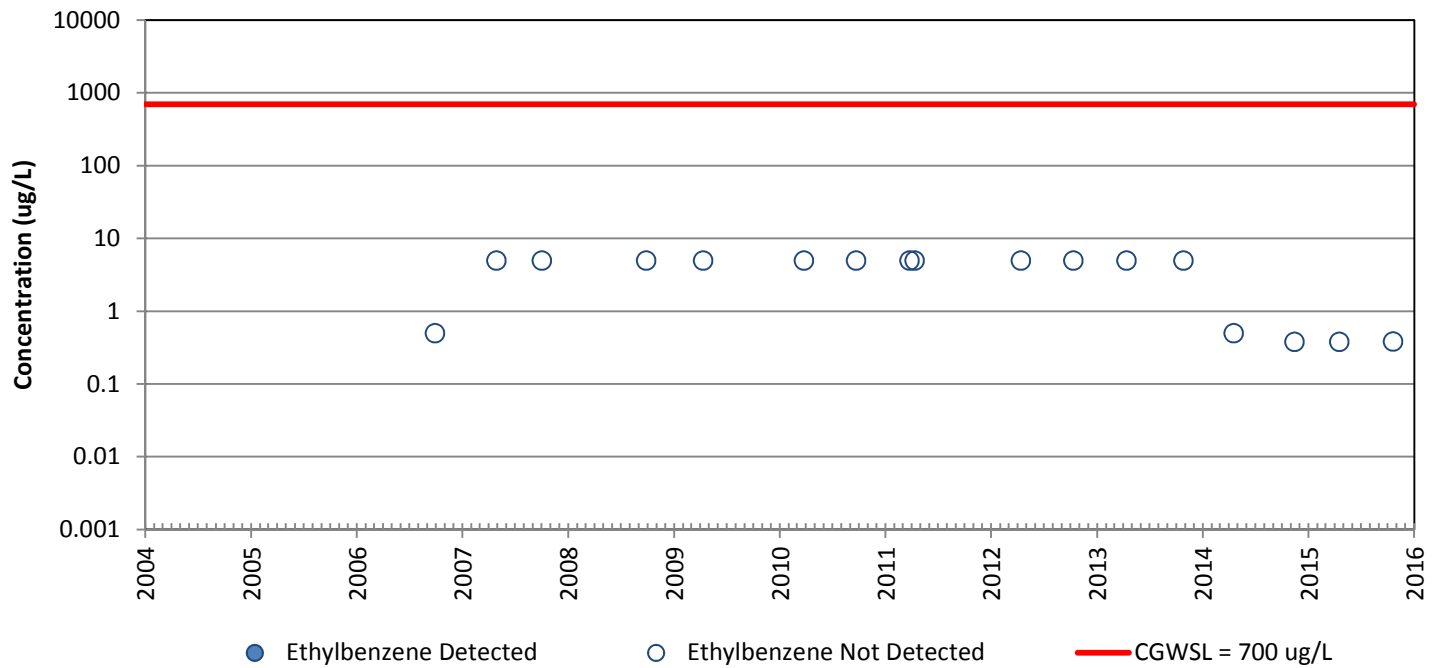


# MW-55

## Benzene

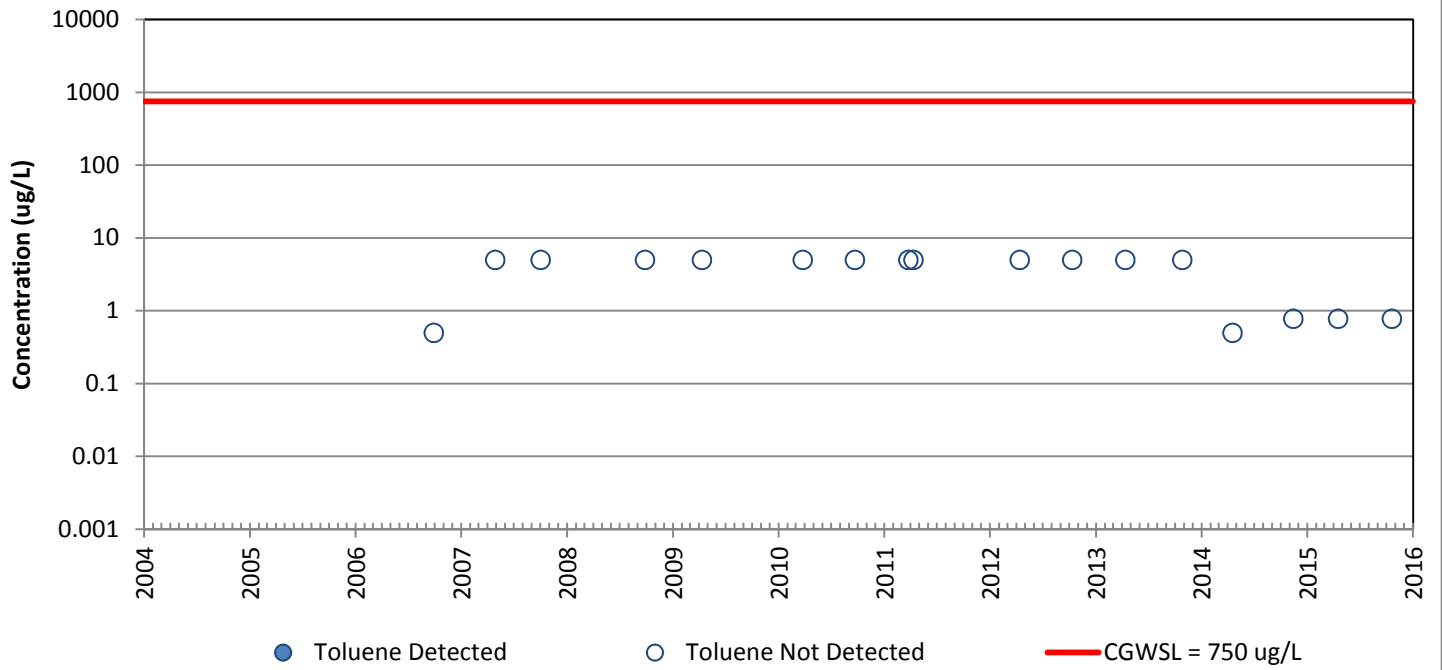


## Ethylbenzene

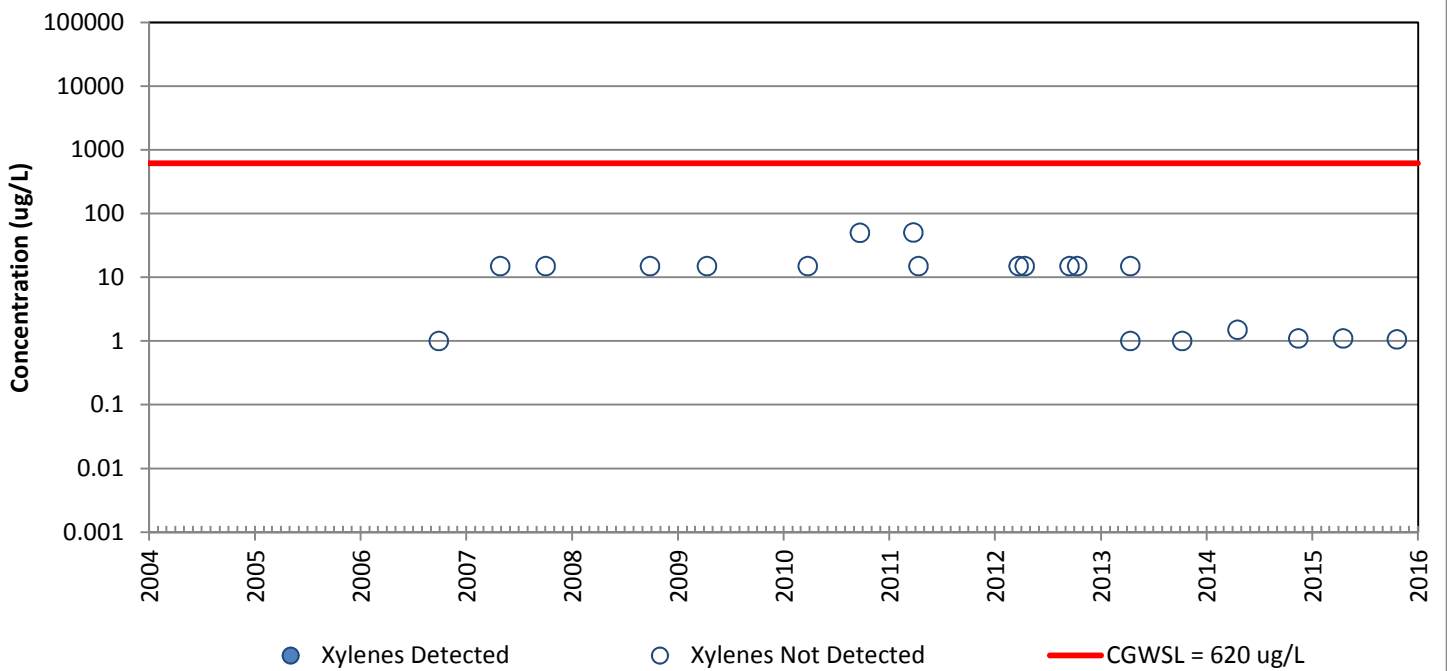


# MW-55

## Toluene

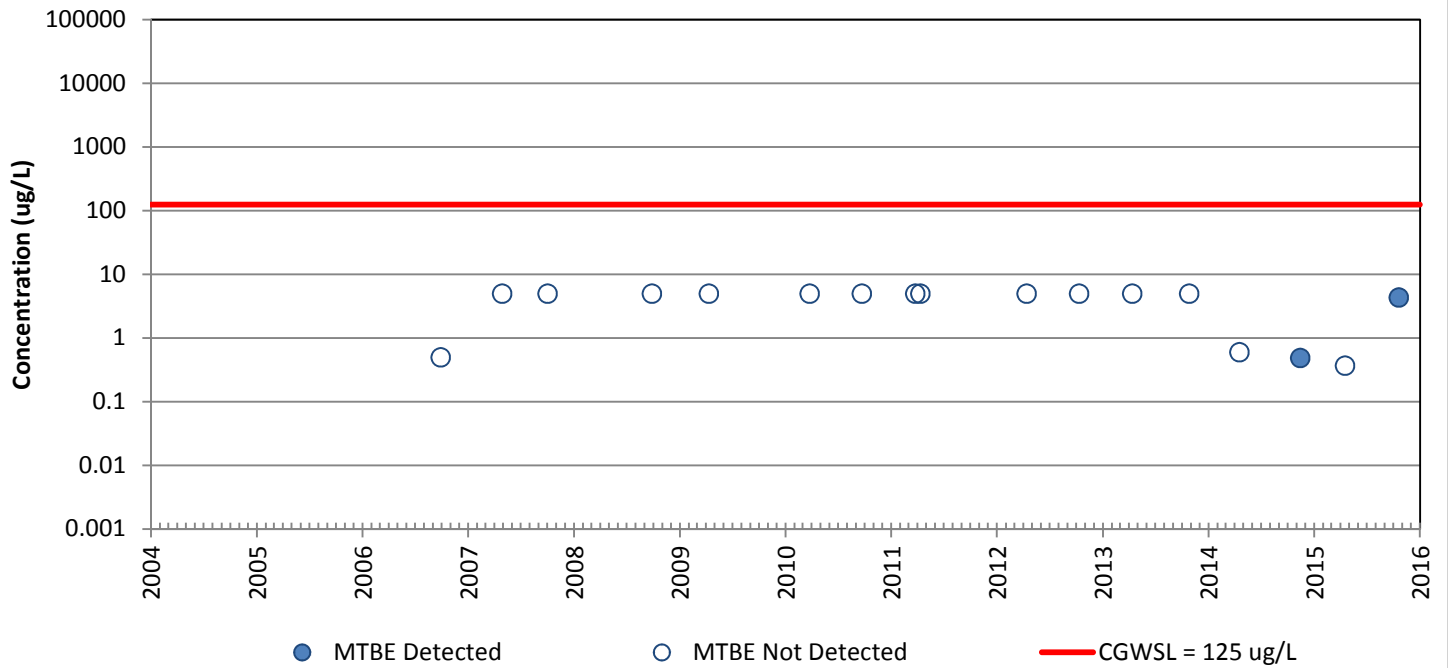


## Xylenes

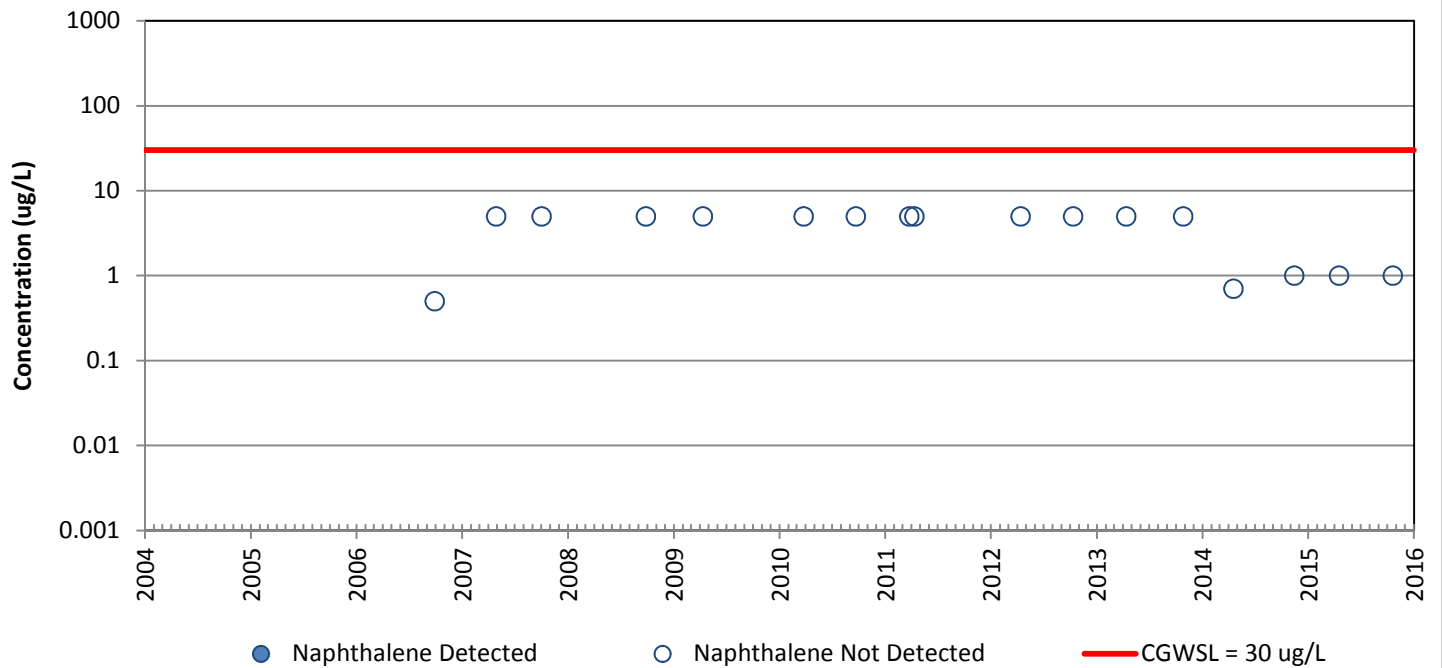


# MW-55

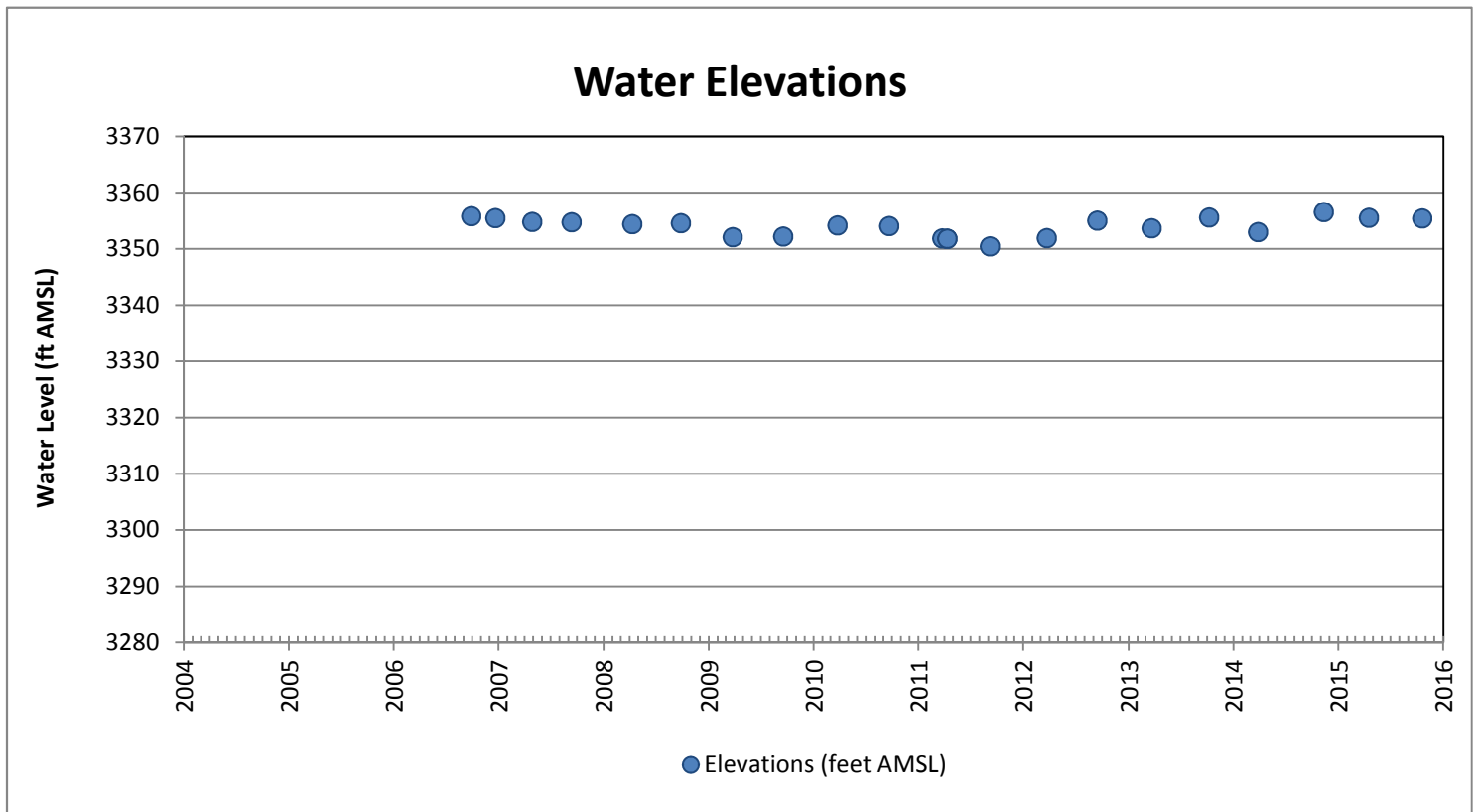
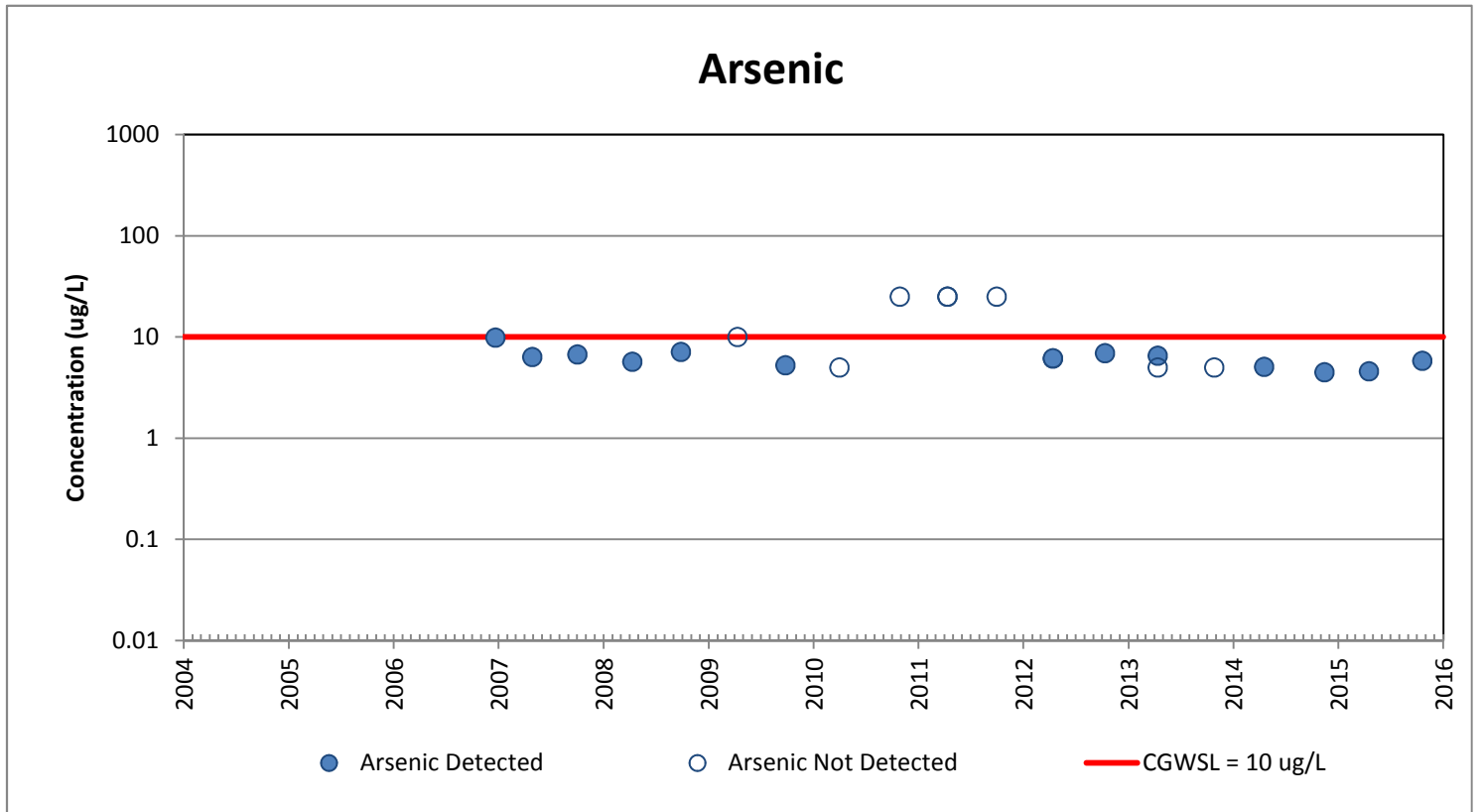
## MTBE



## Naphthalene

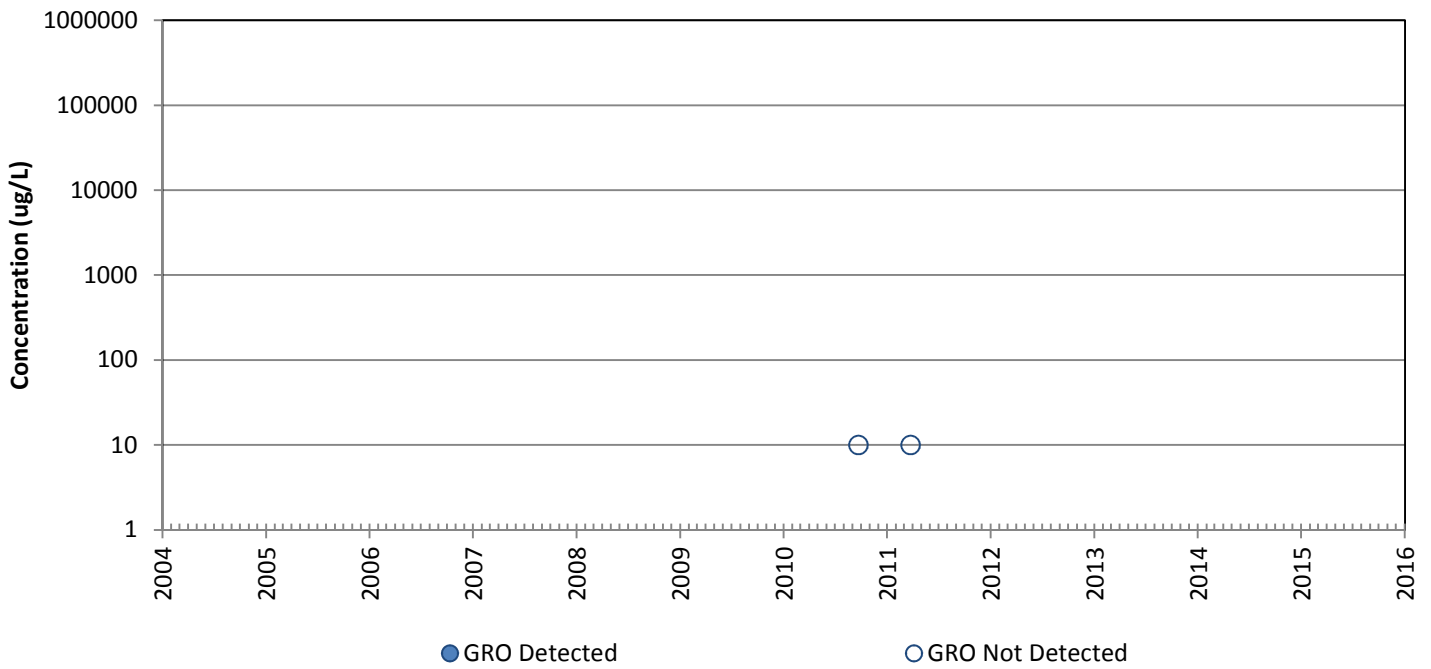


# MW-55

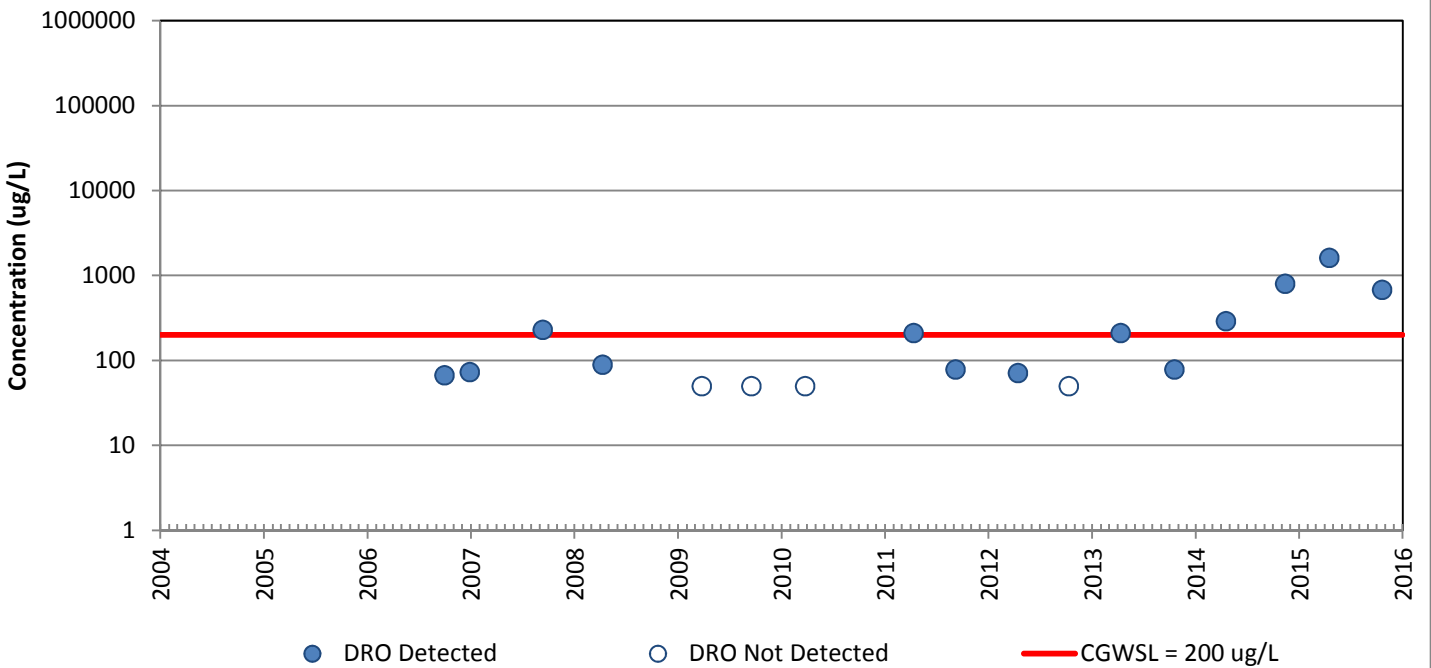


# MW-56

## GRO

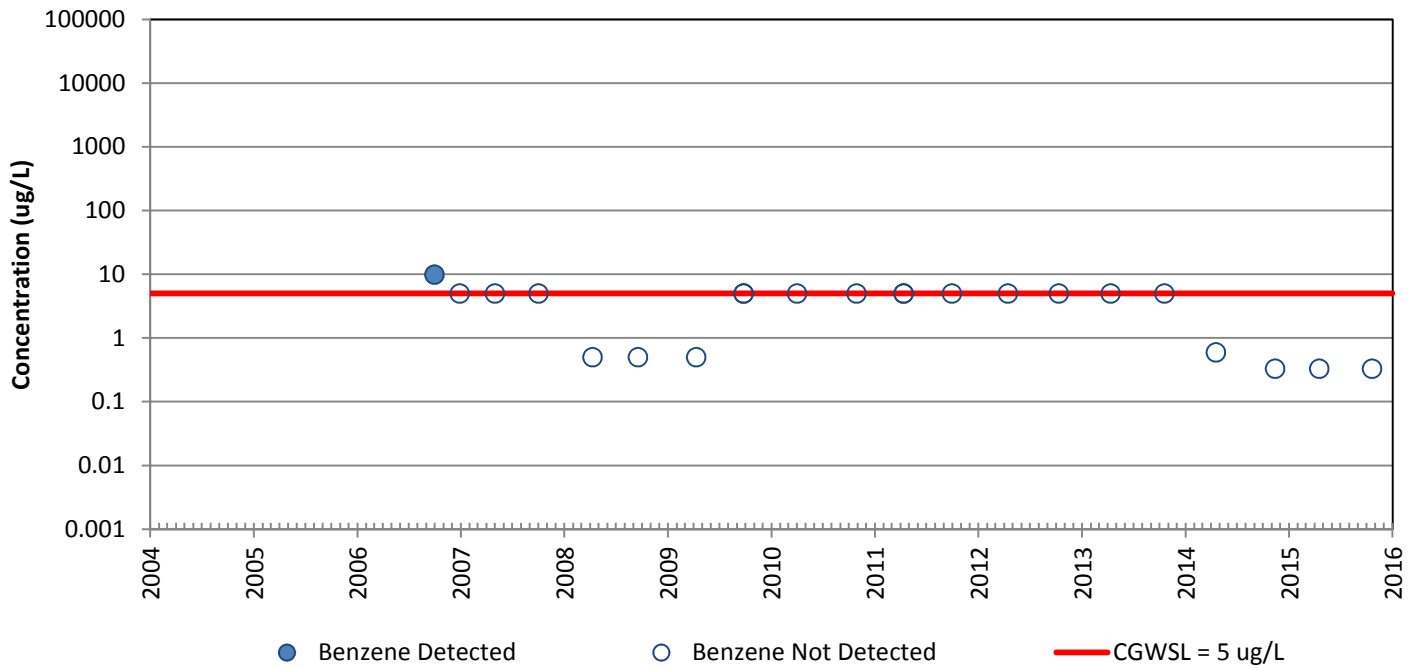


## DRO

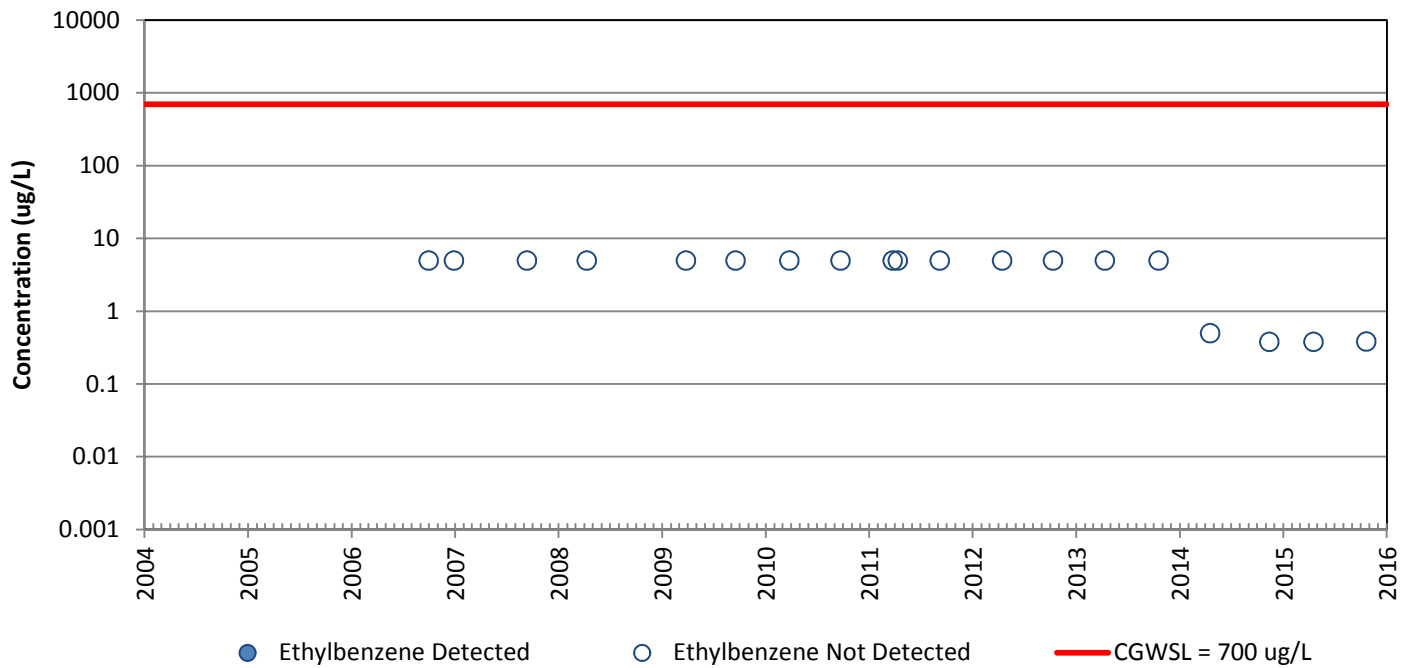


# MW-56

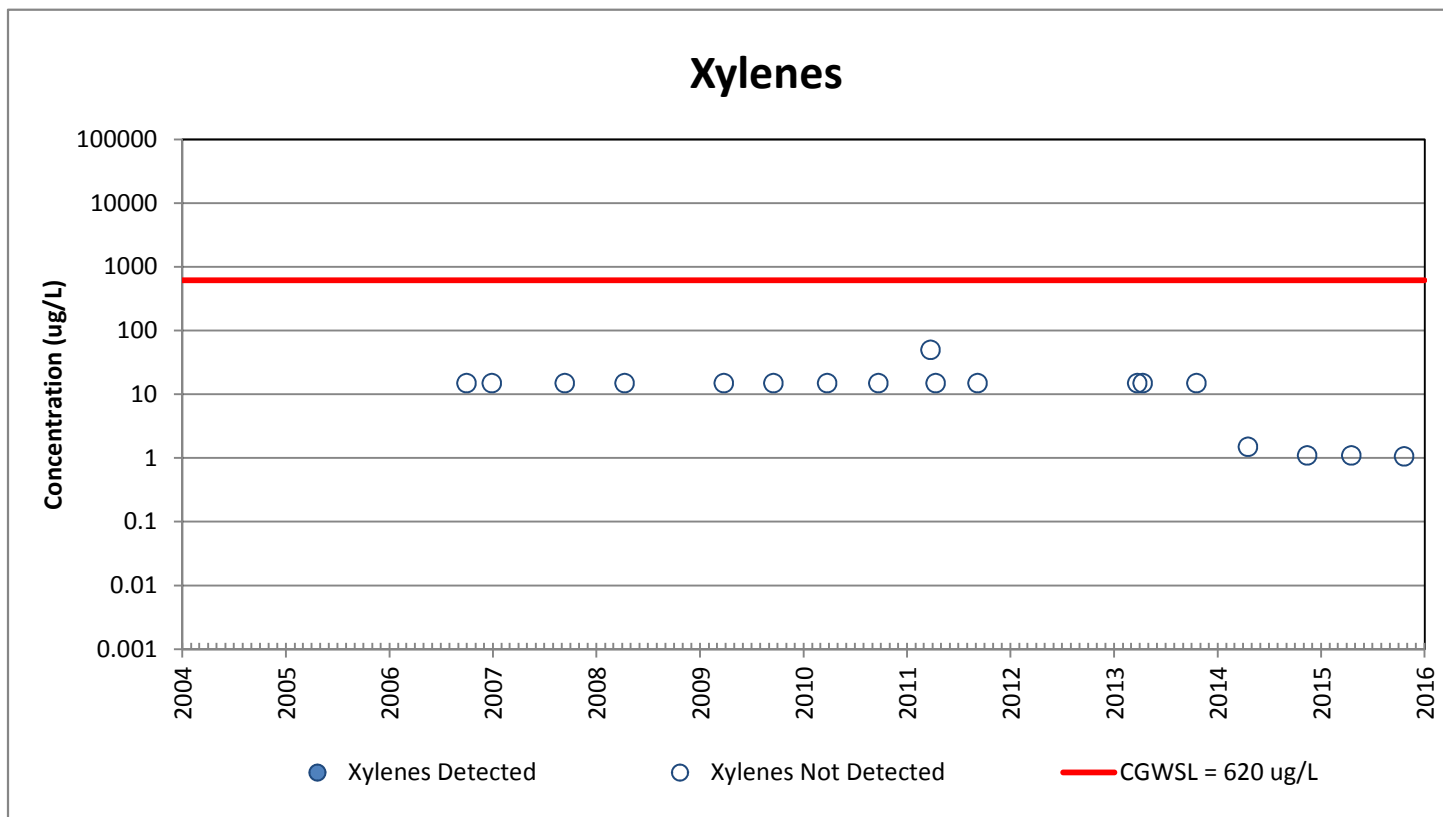
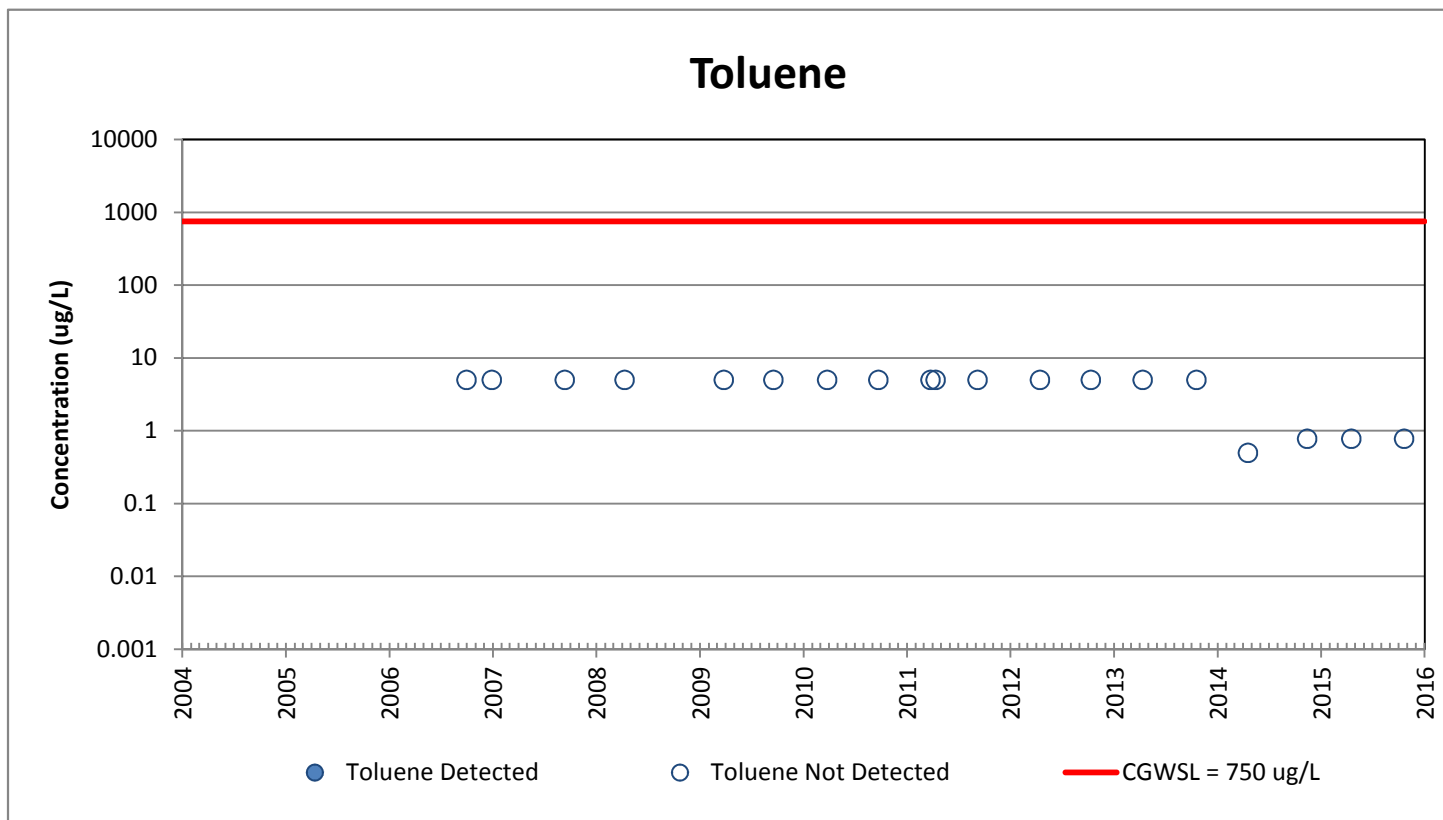
## Benzene



## Ethylbenzene

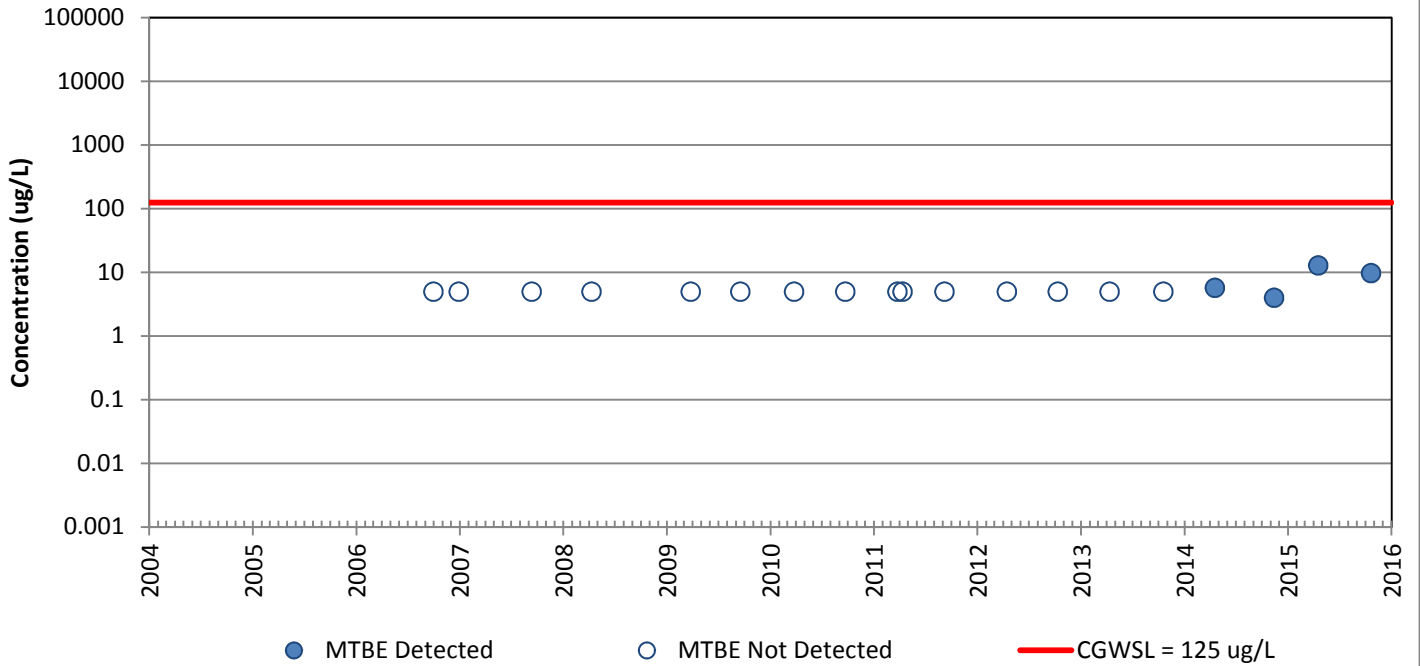


## MW-56

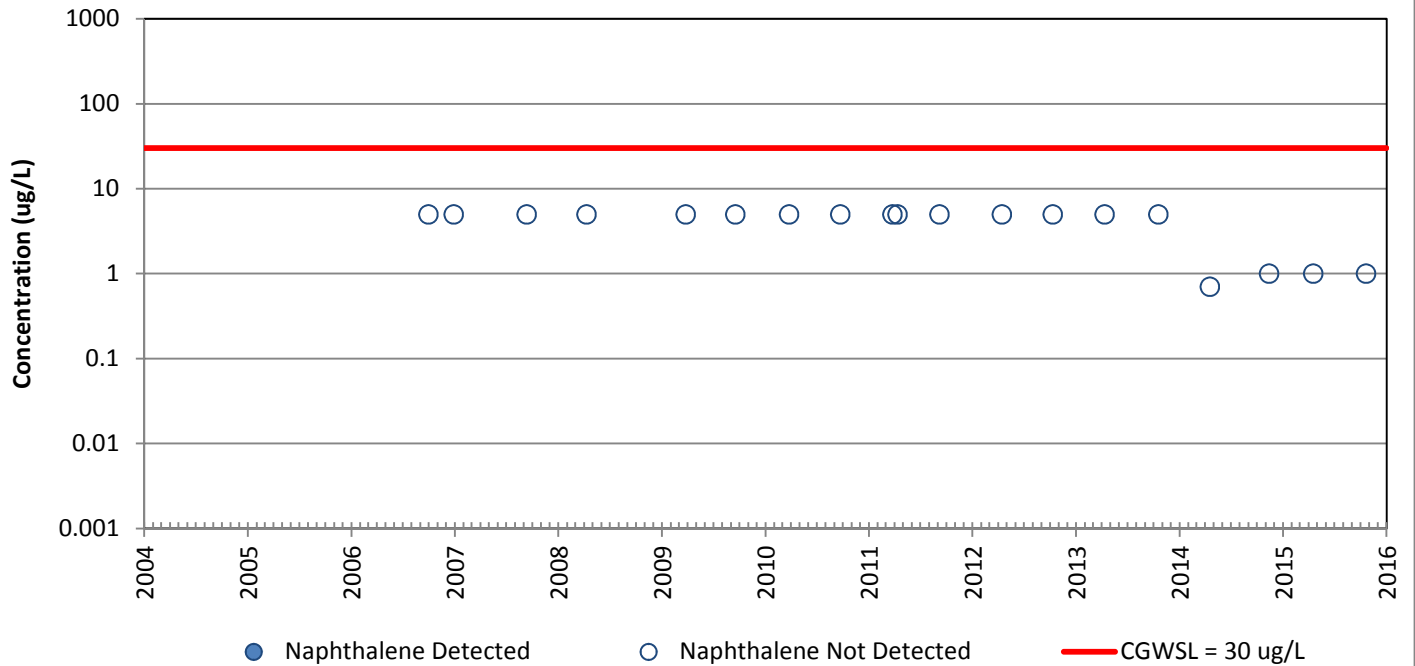


# MW-56

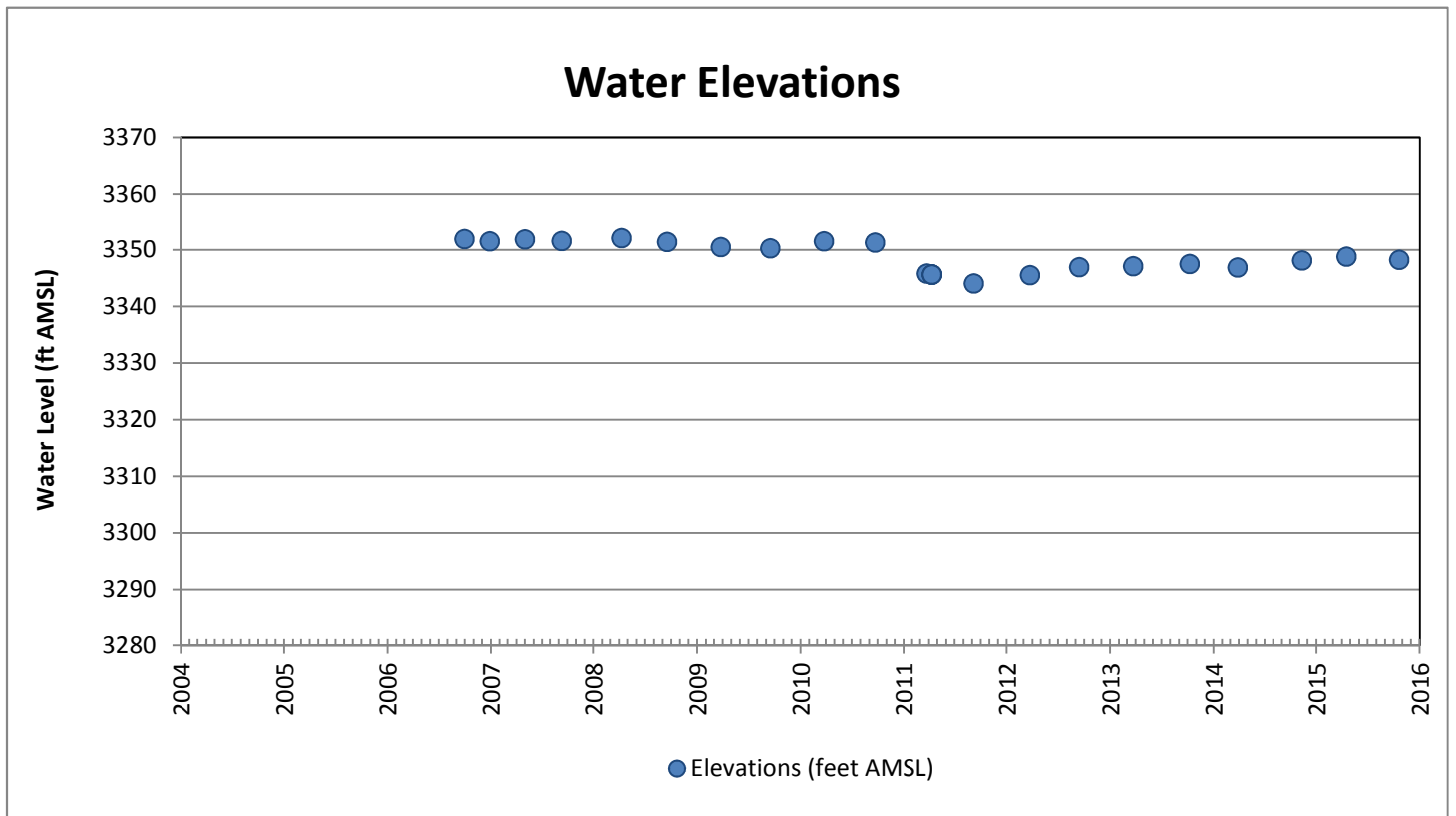
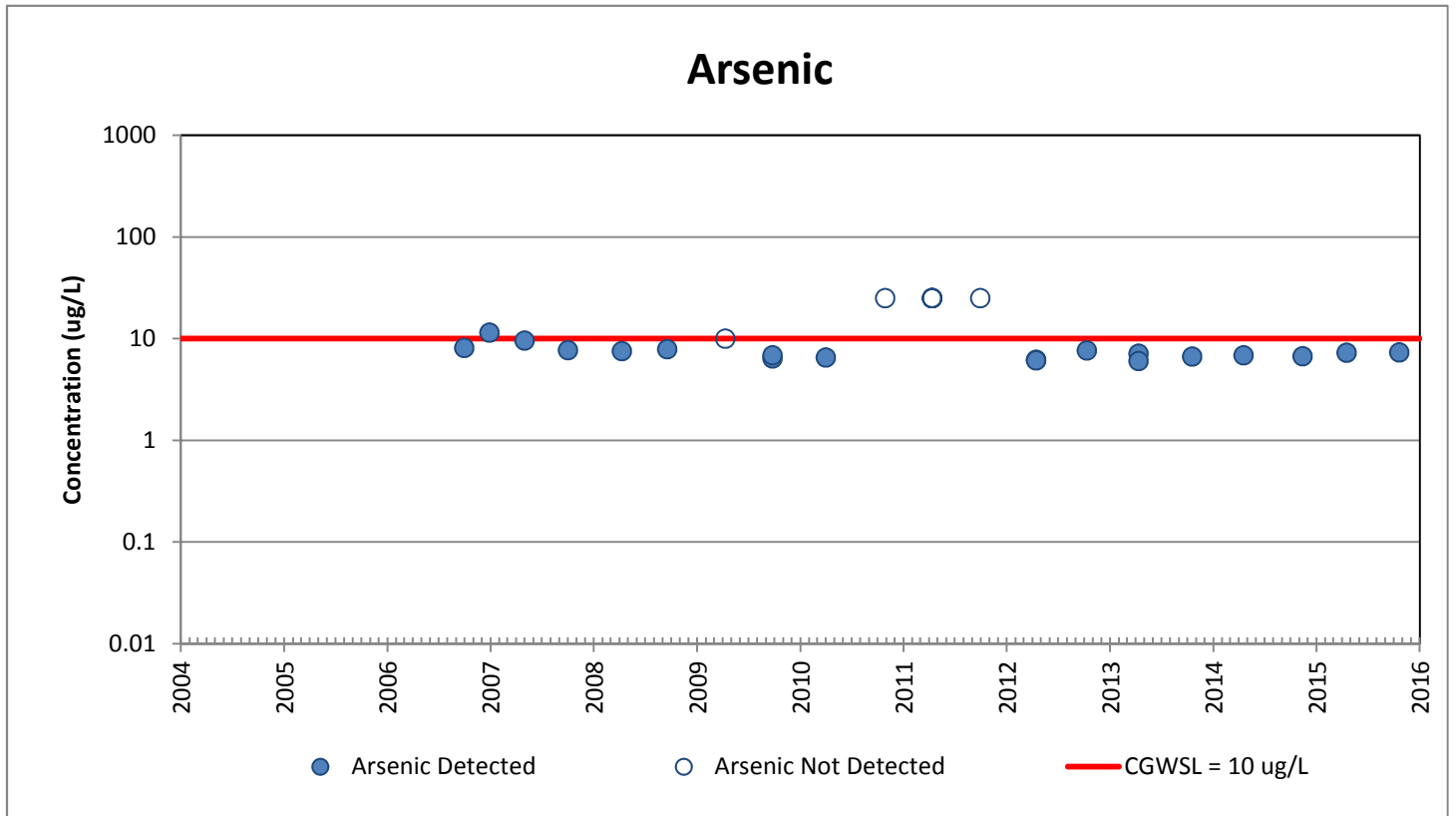
## MTBE



## Naphthalene

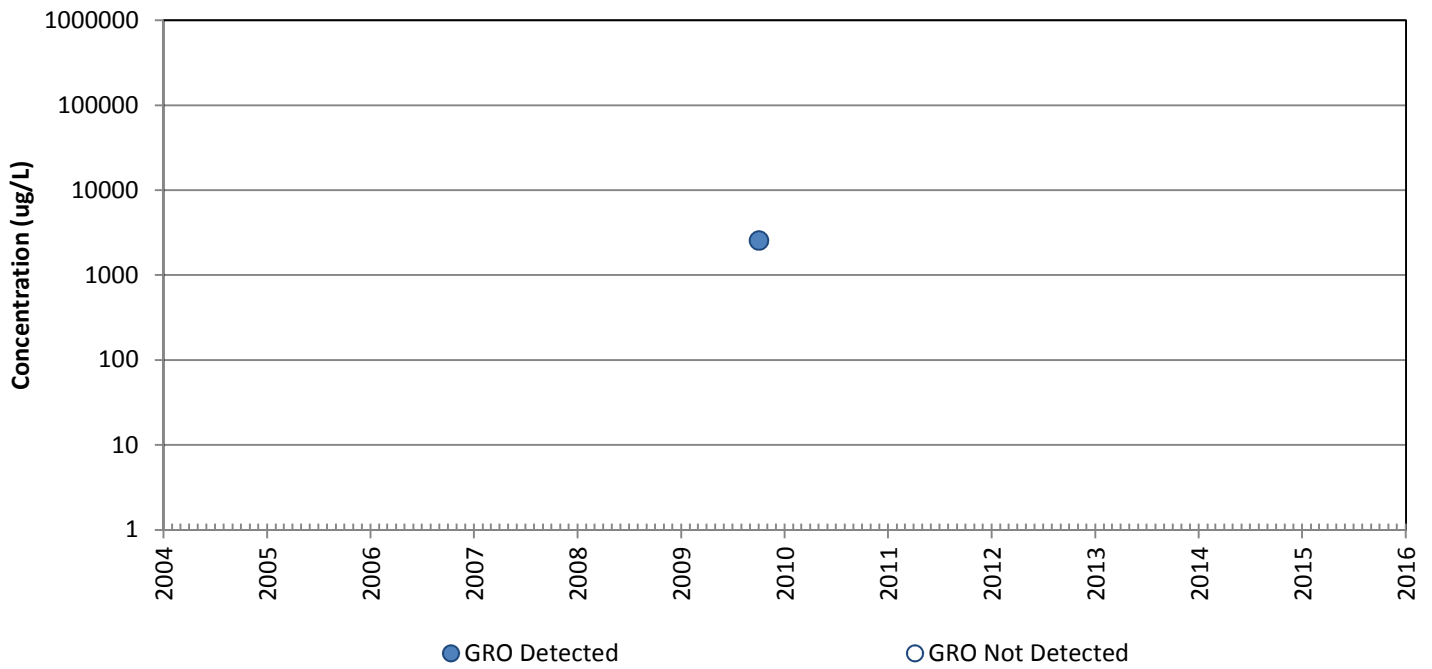


# MW-56

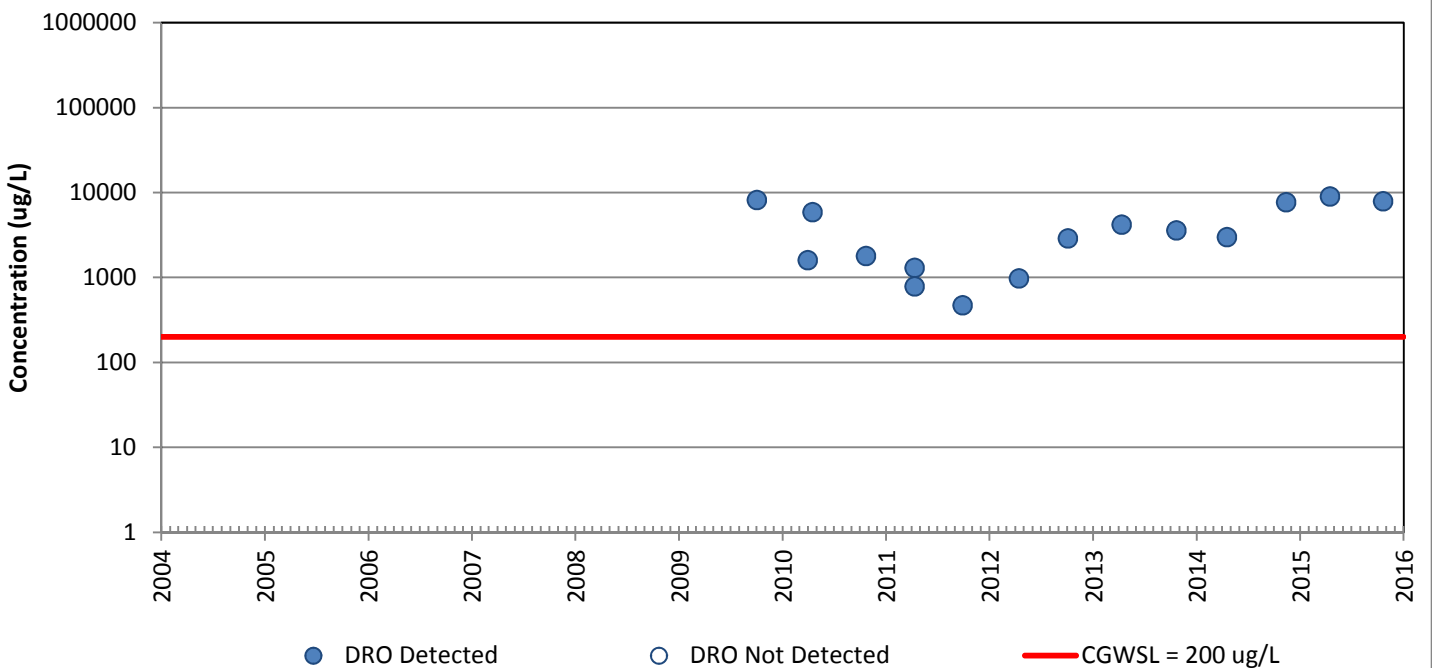


# MW-108

## GRO

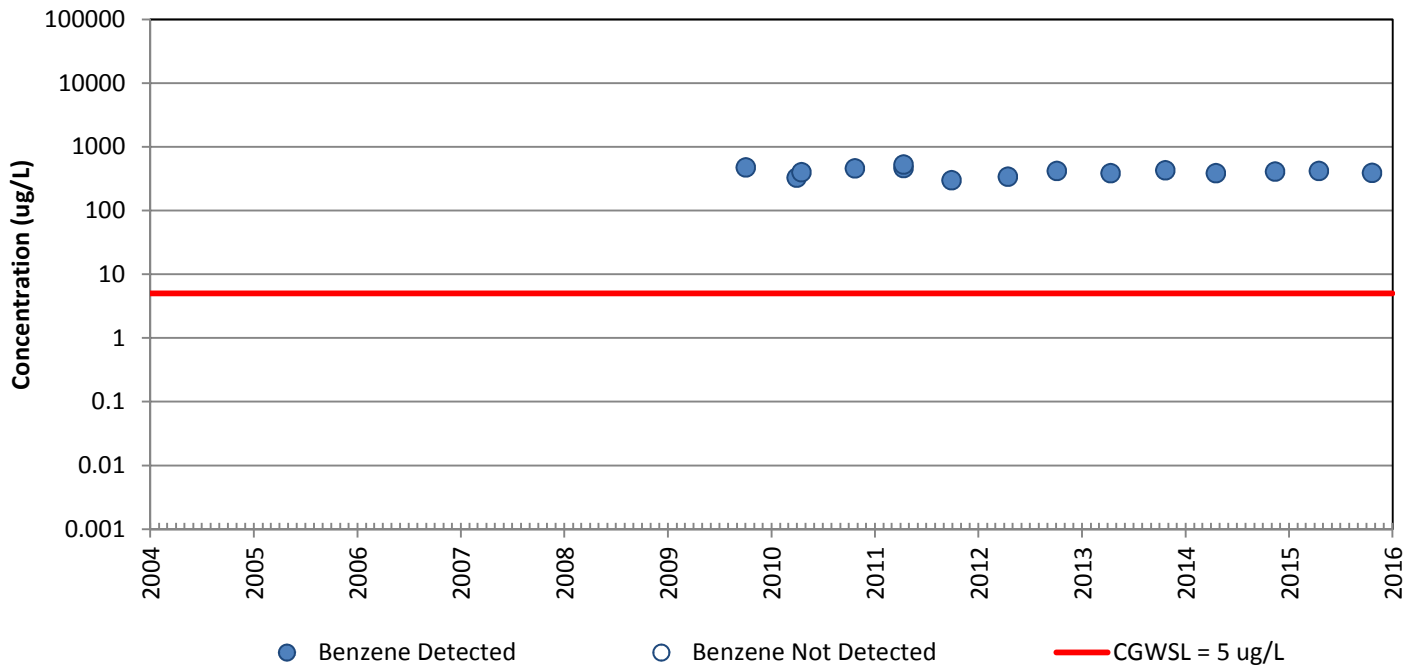


## DRO

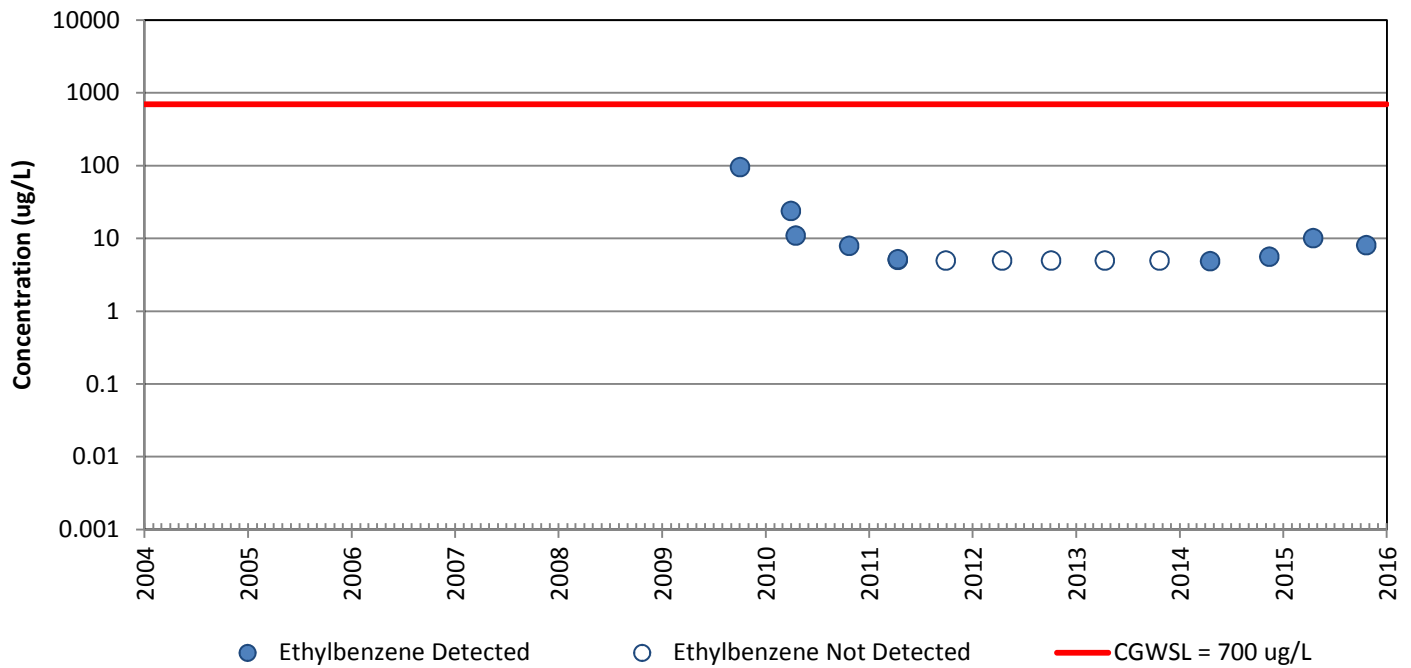


# MW-108

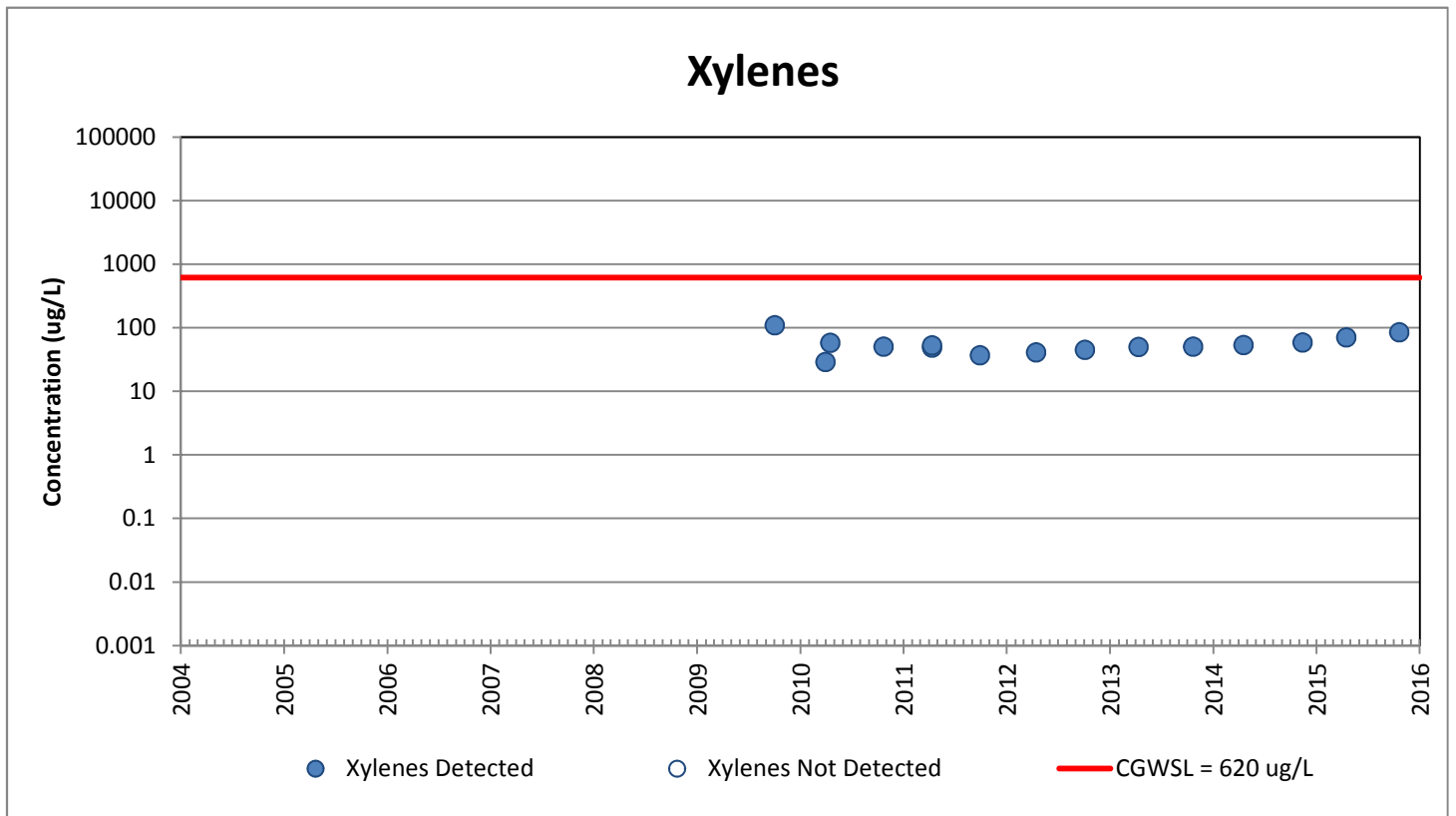
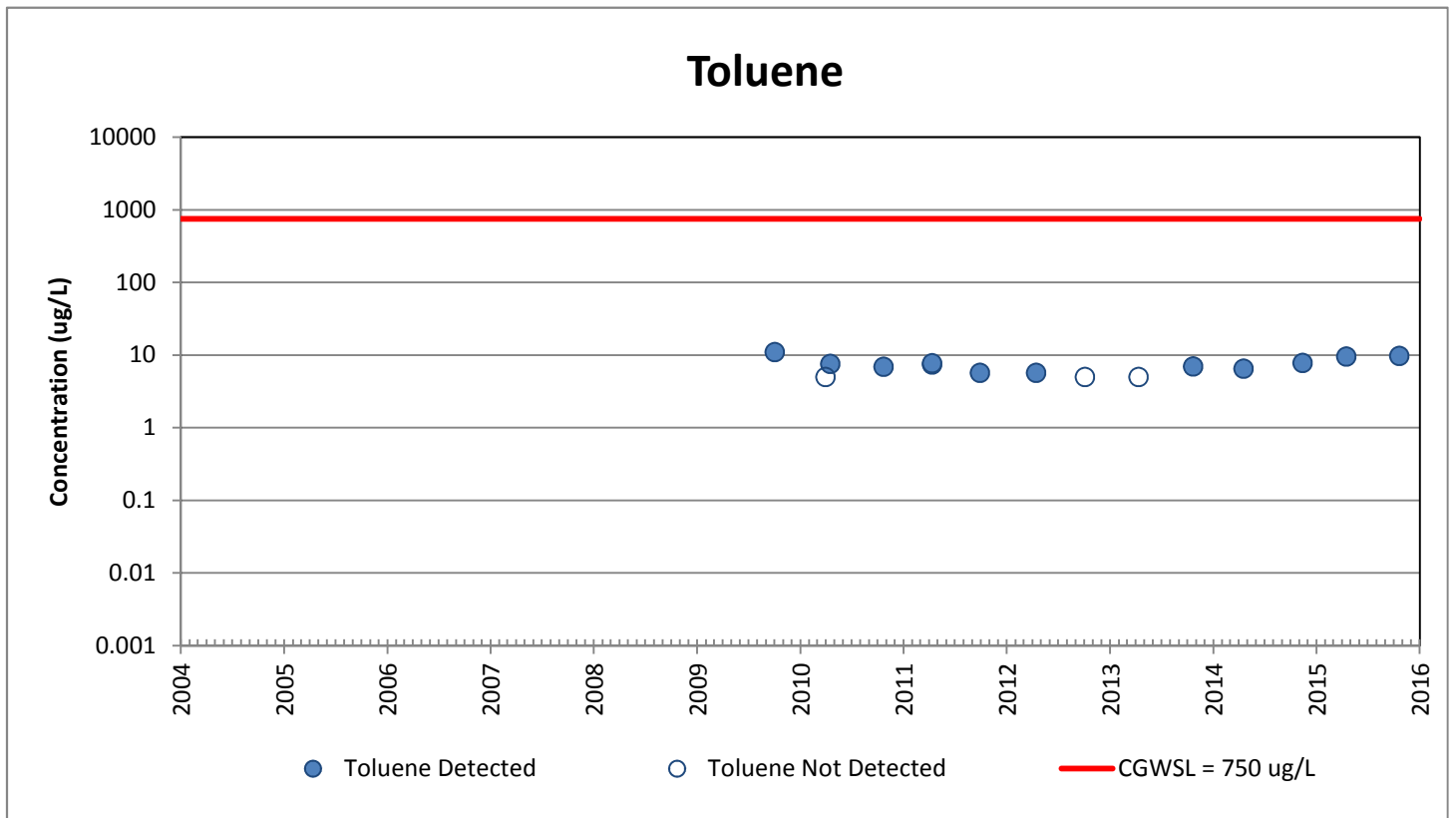
## Benzene



## Ethylbenzene

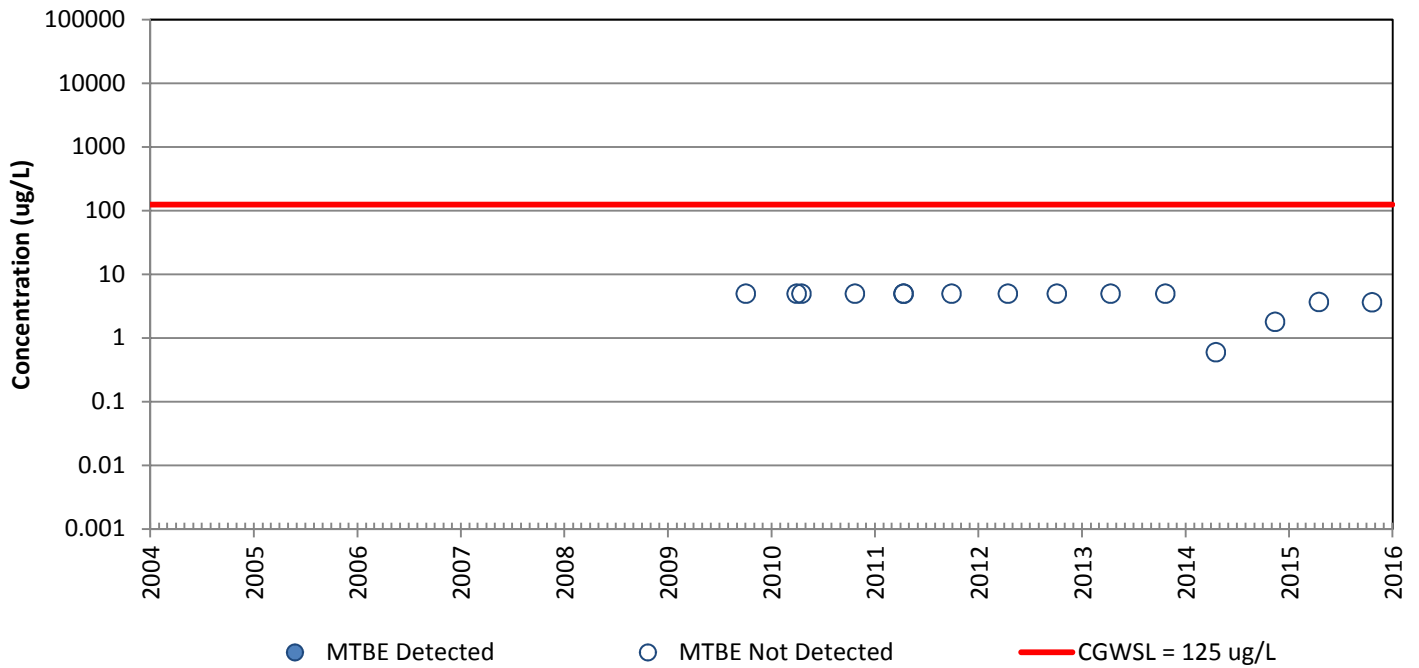


# MW-108

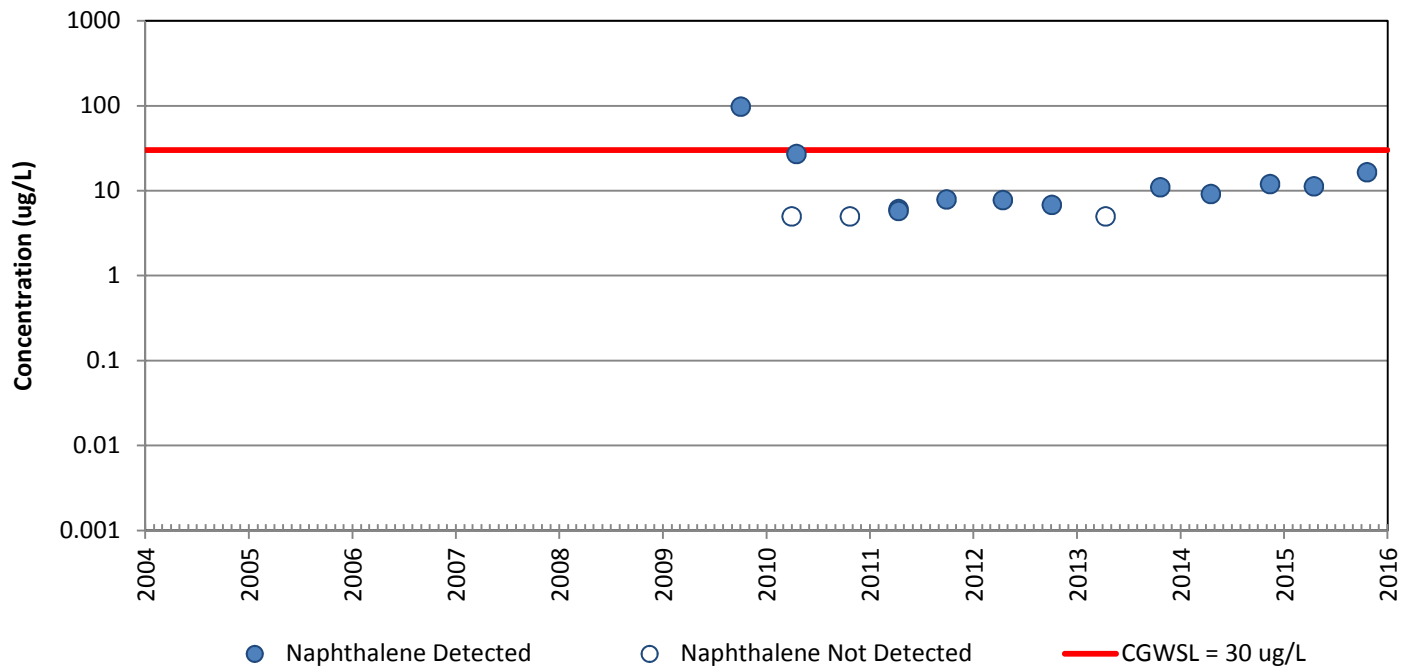


# MW-108

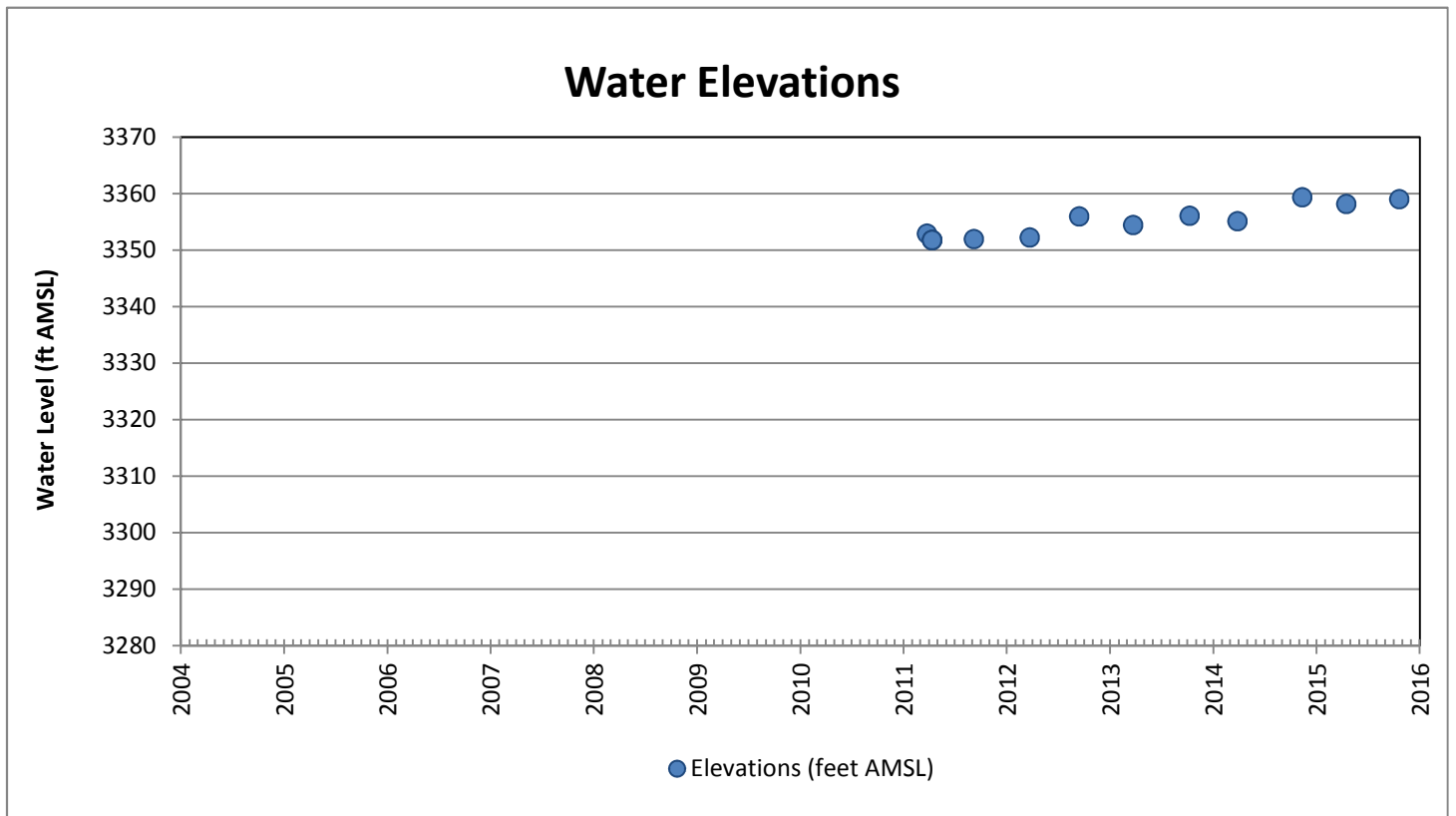
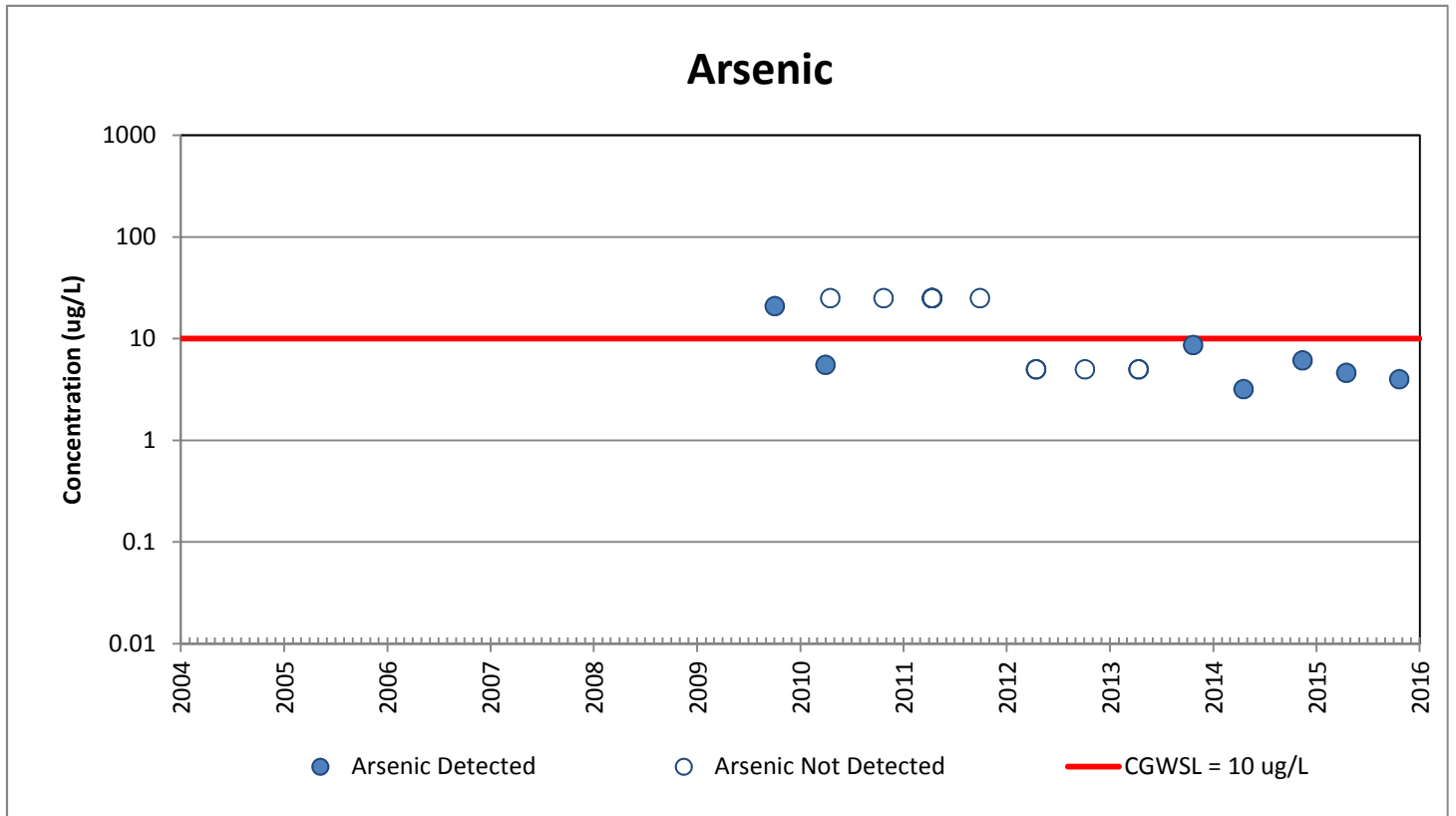
## MTBE



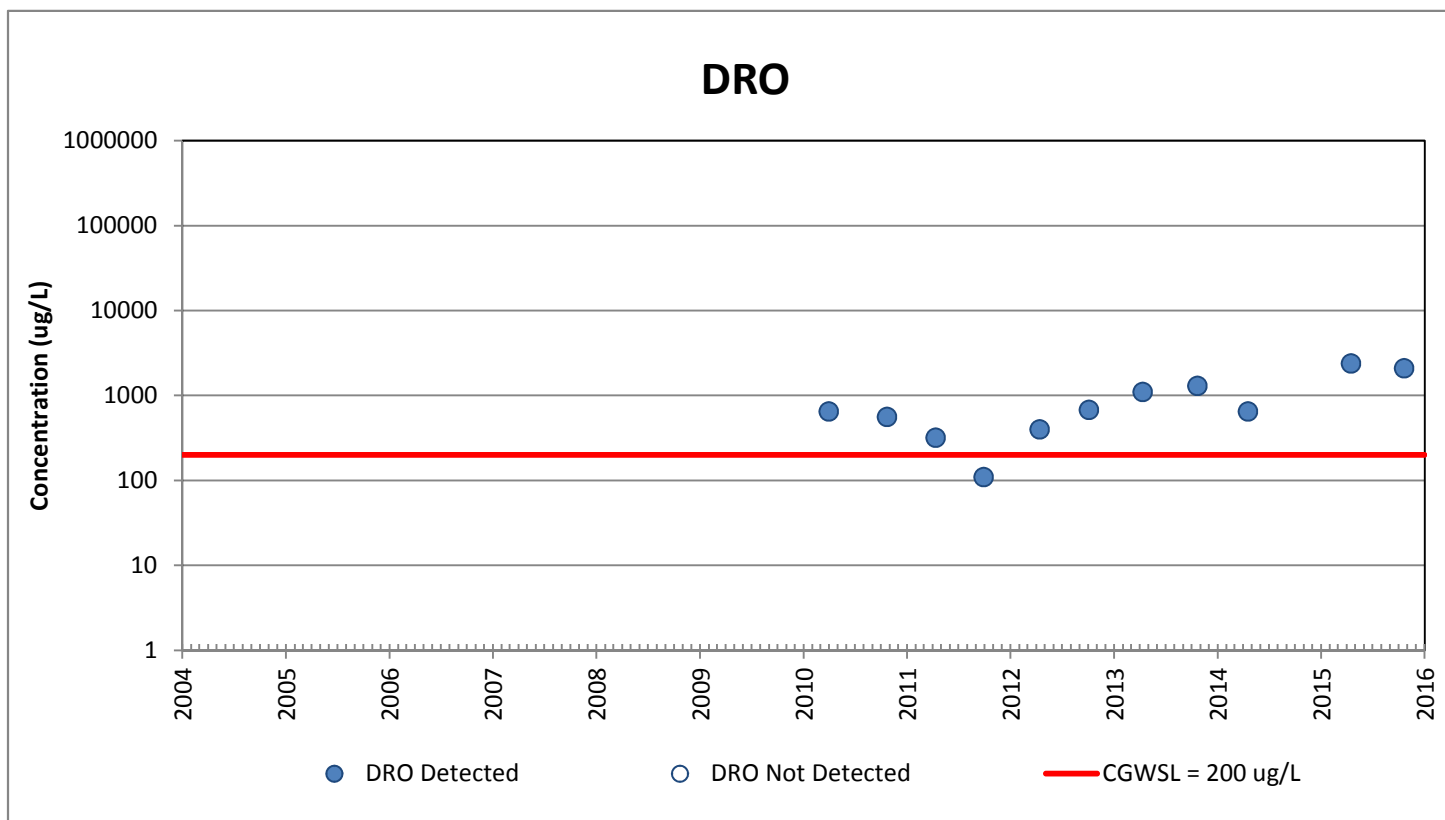
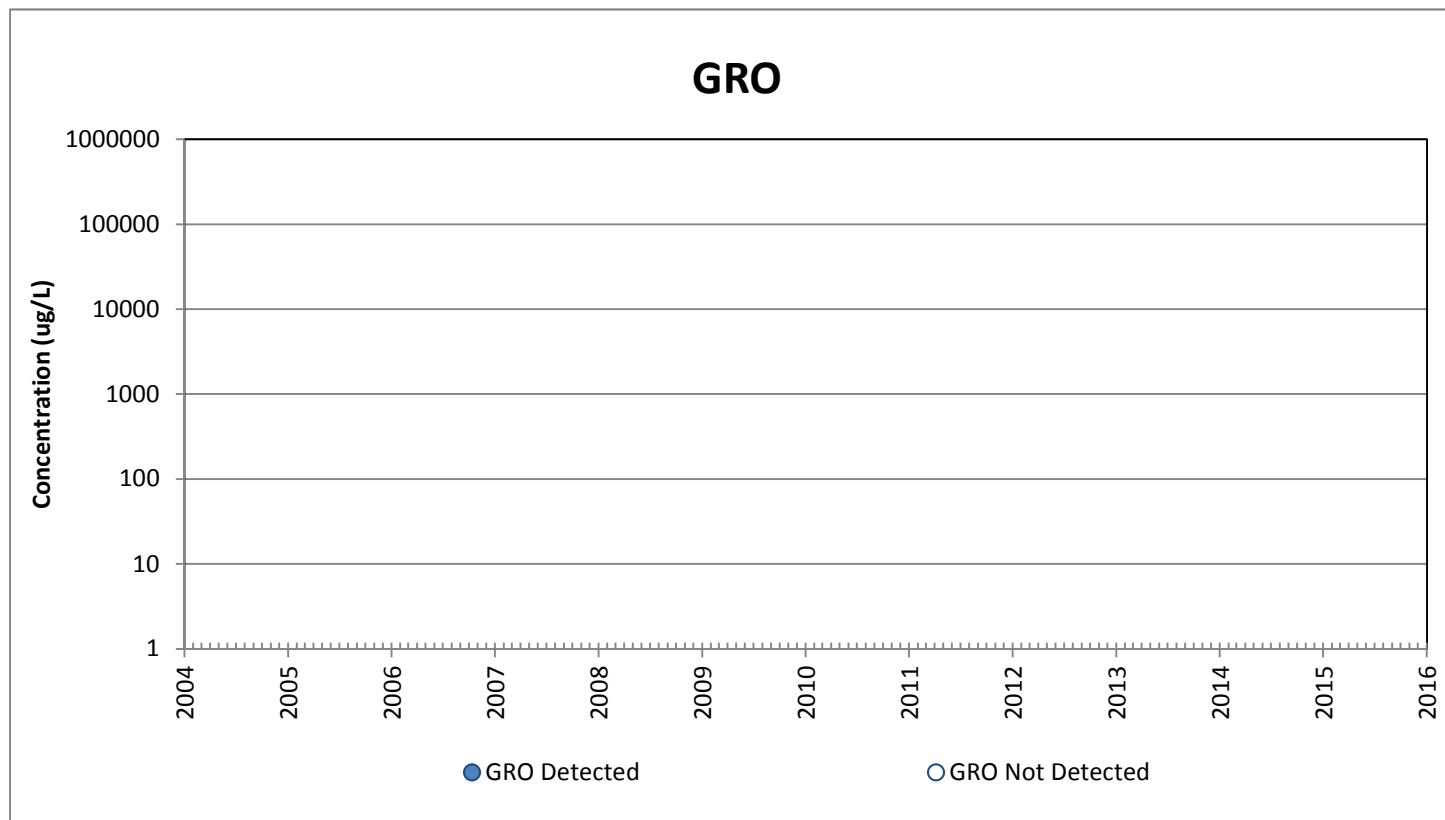
## Naphthalene



# MW-108

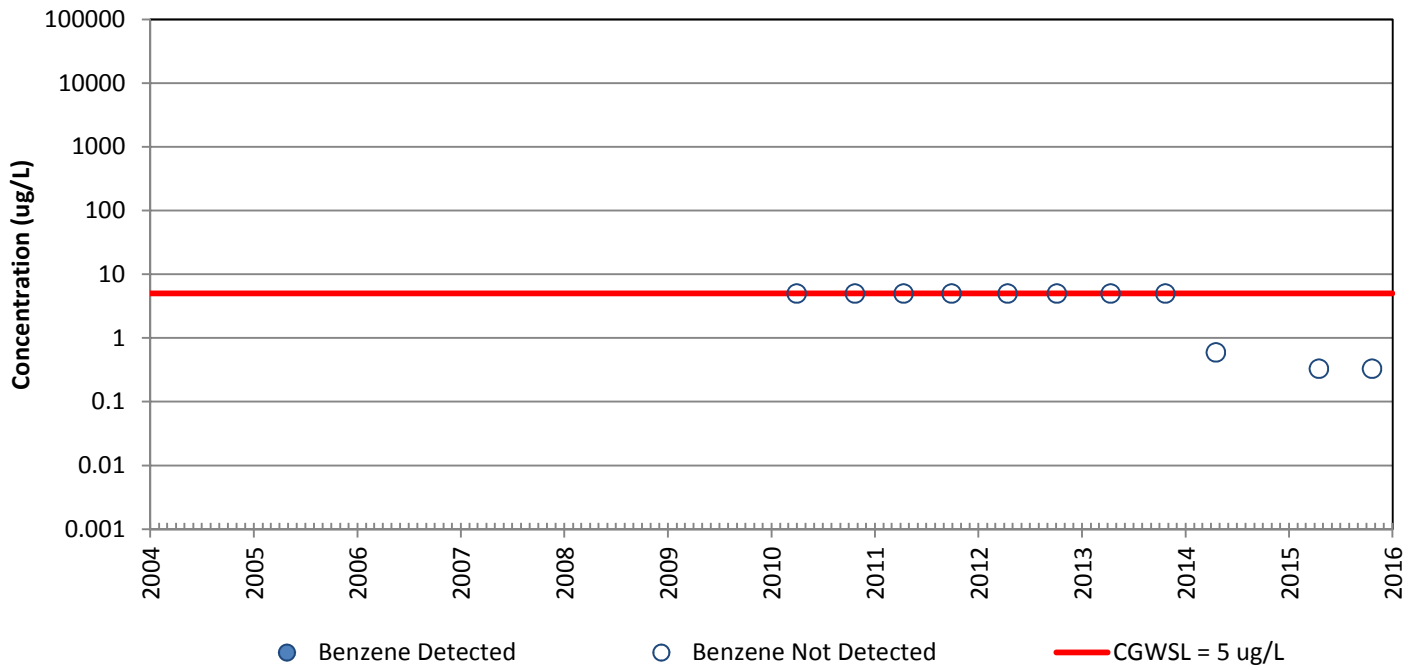


# NCL-31

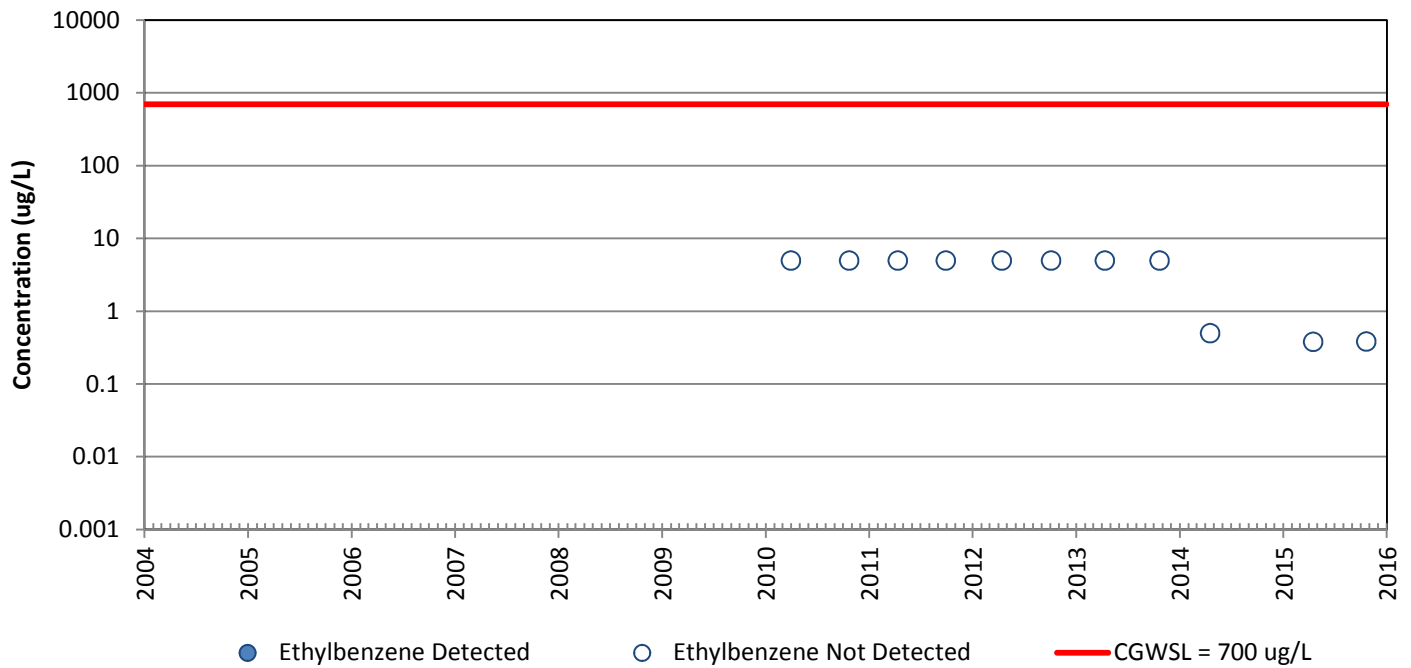


# NCL-31

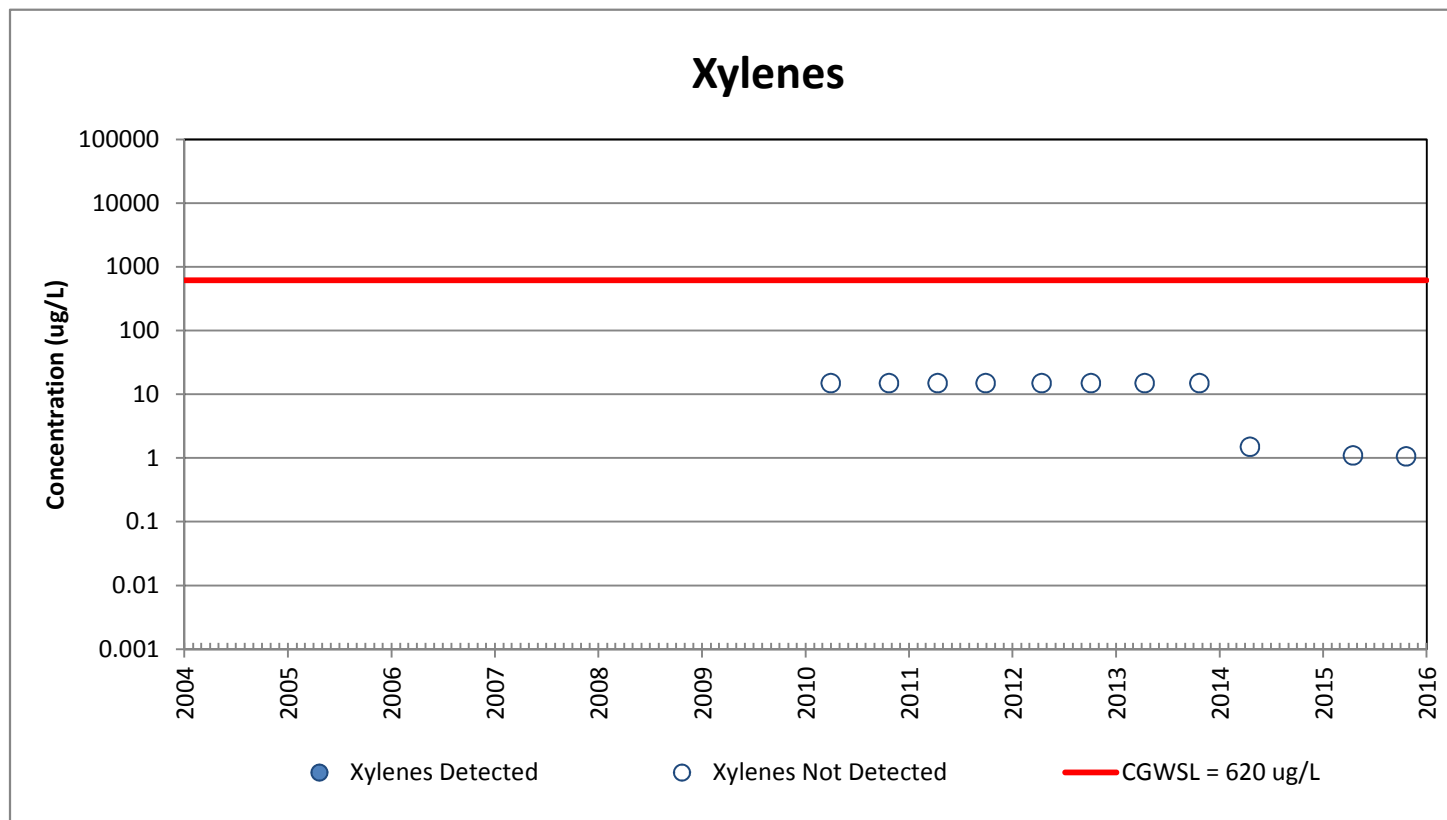
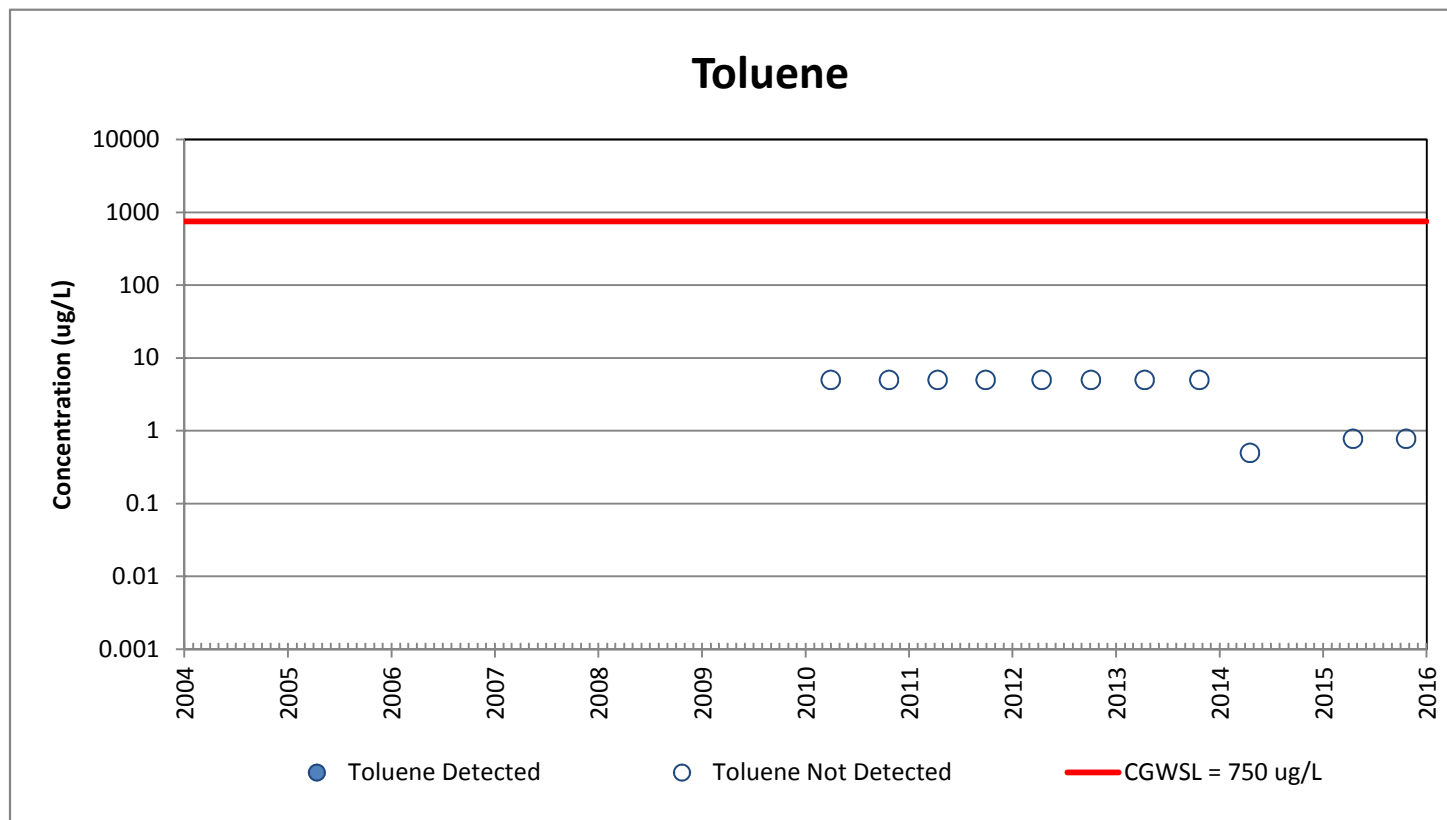
## Benzene



## Ethylbenzene

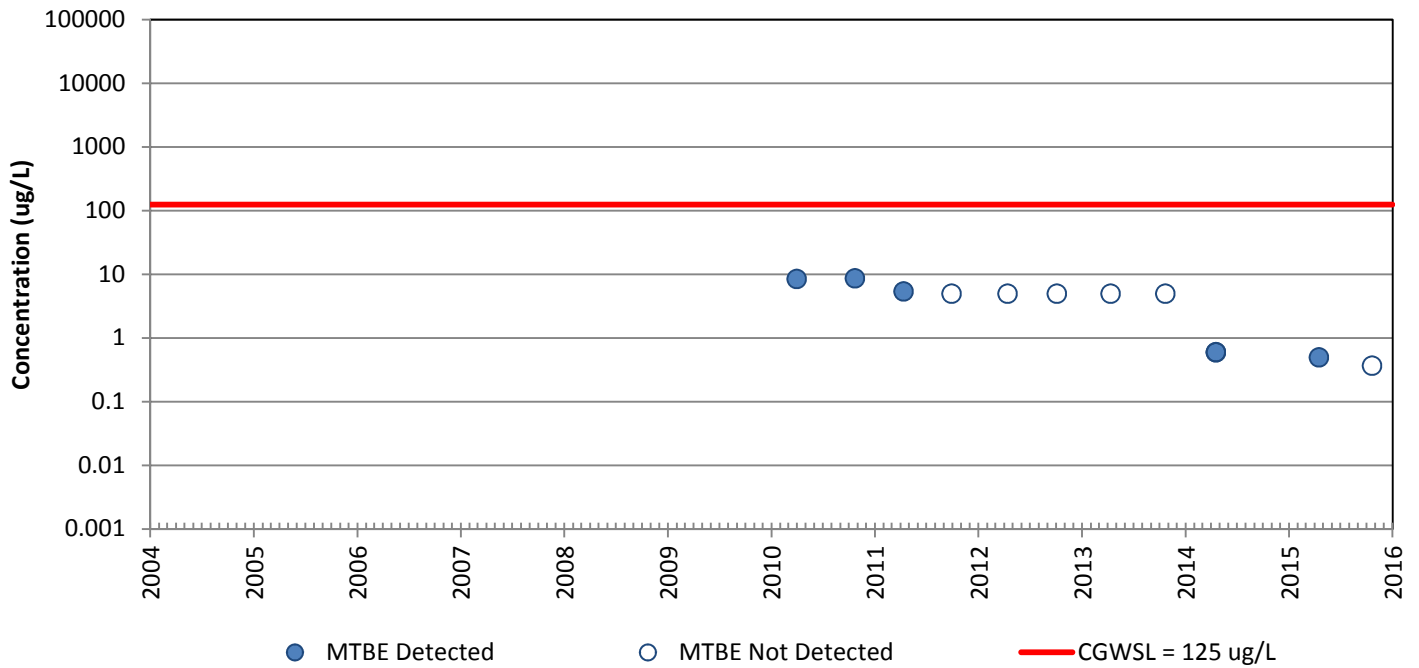


# NCL-31

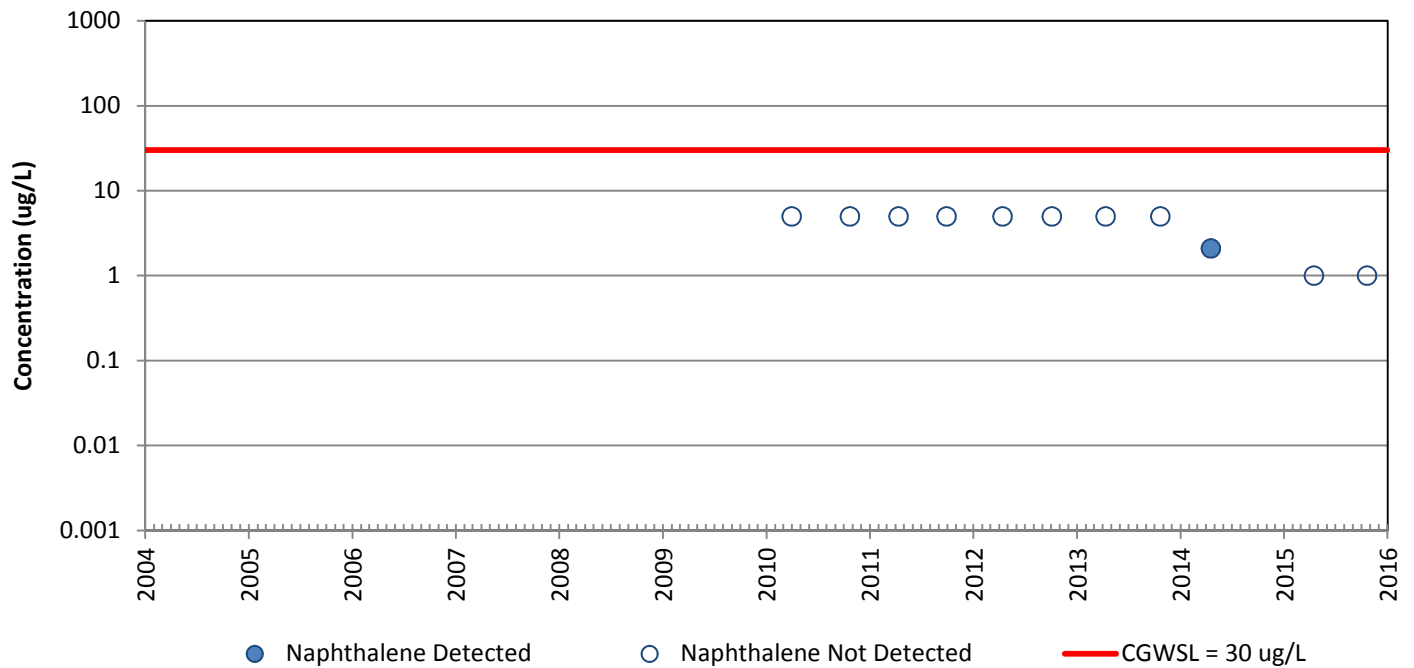


# NCL-31

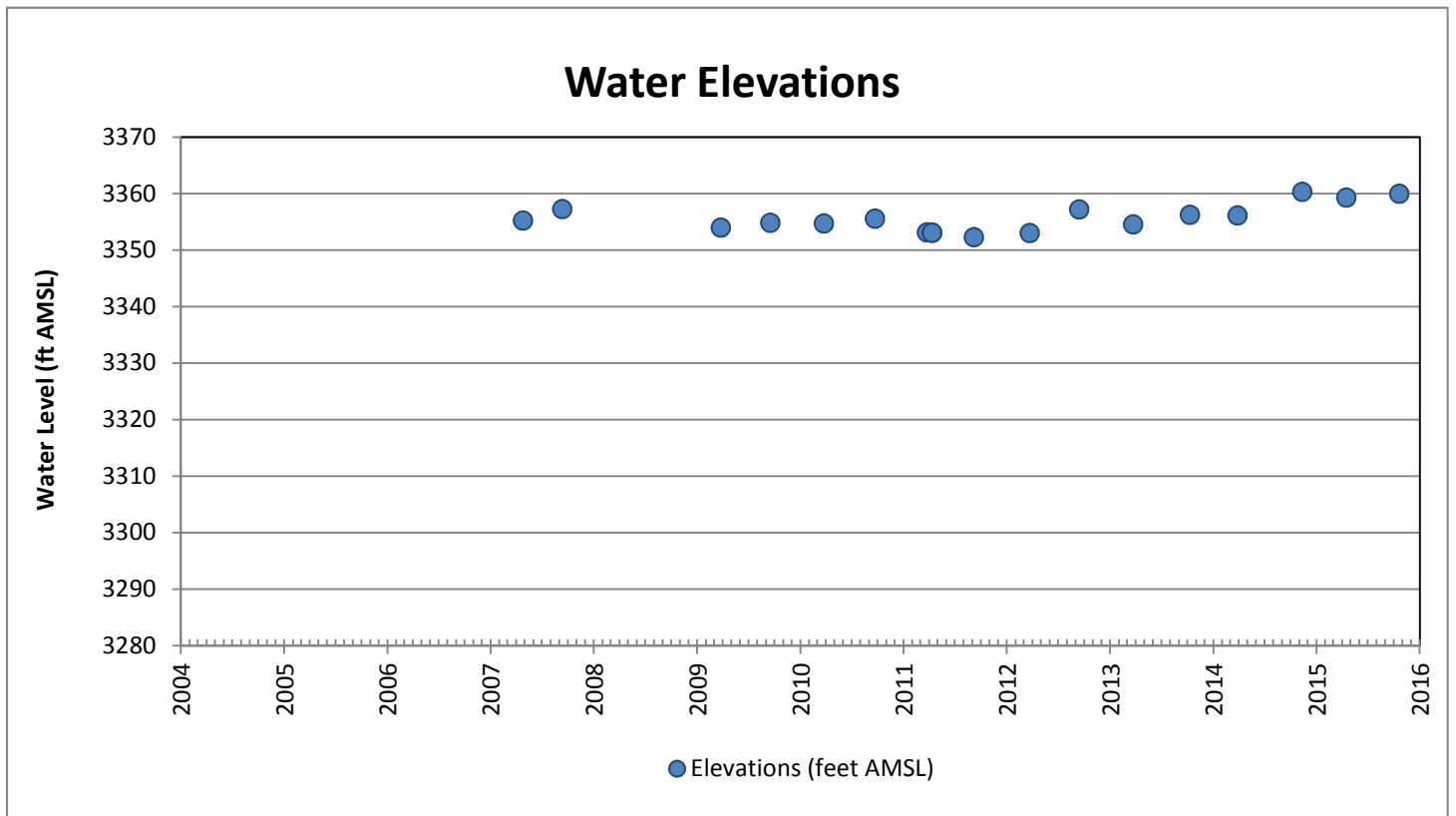
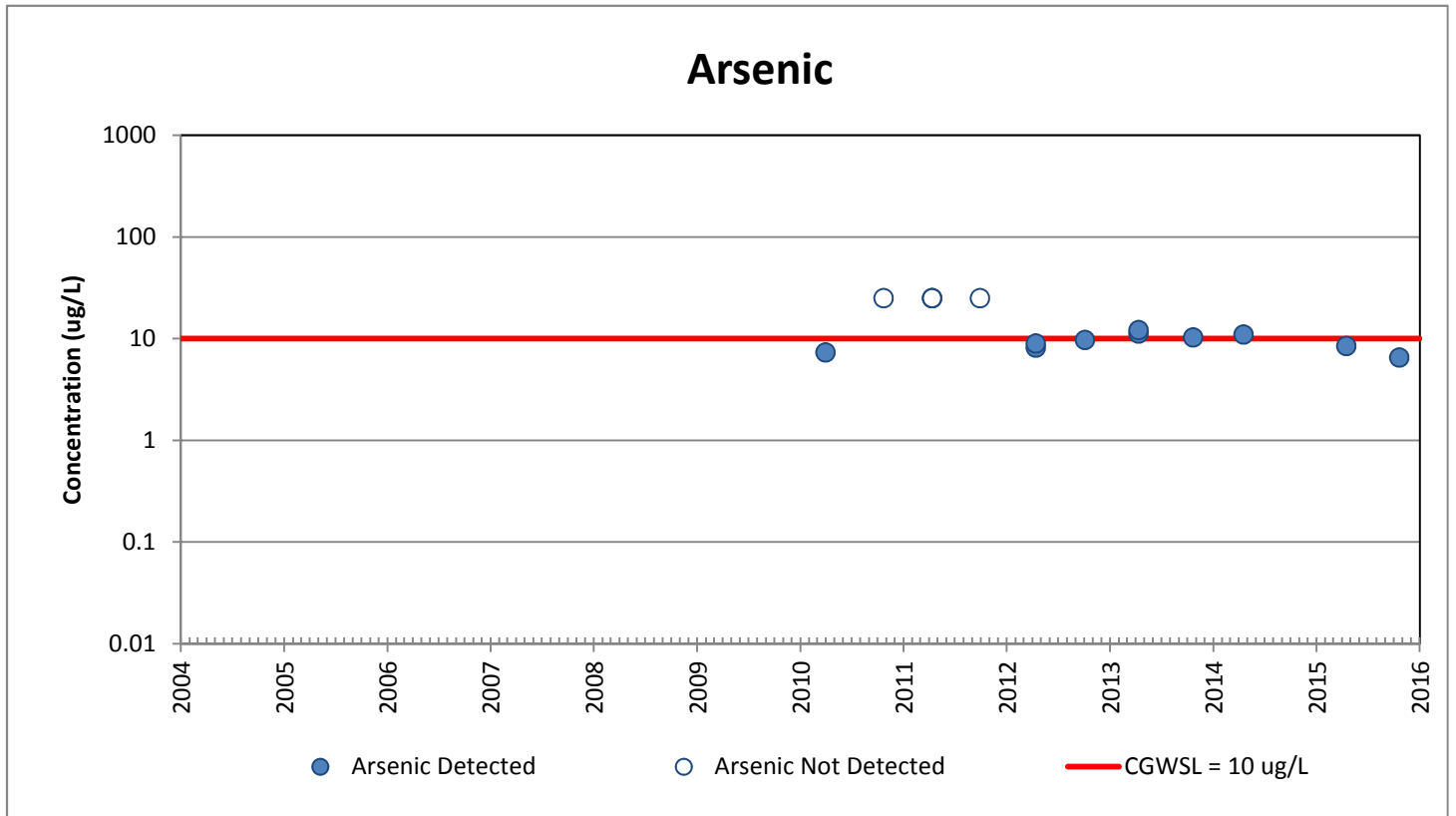
## MTBE



## Naphthalene

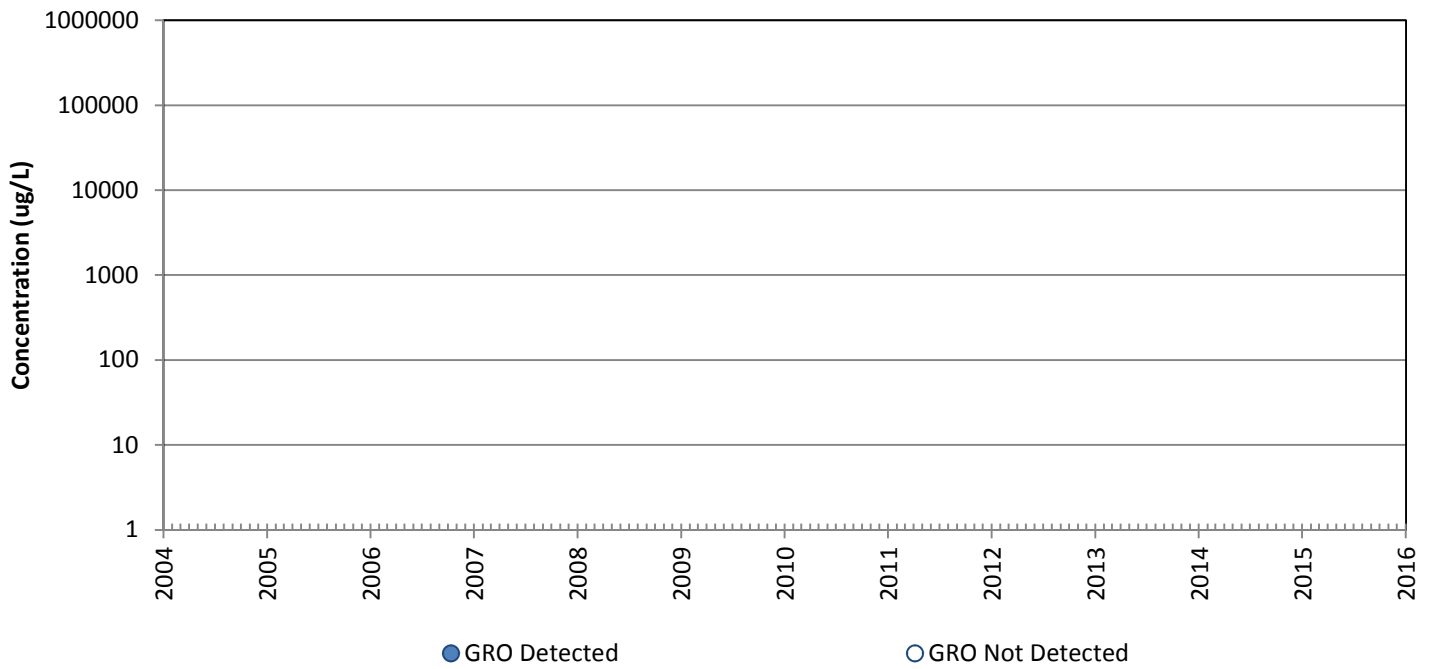


# NCL-31

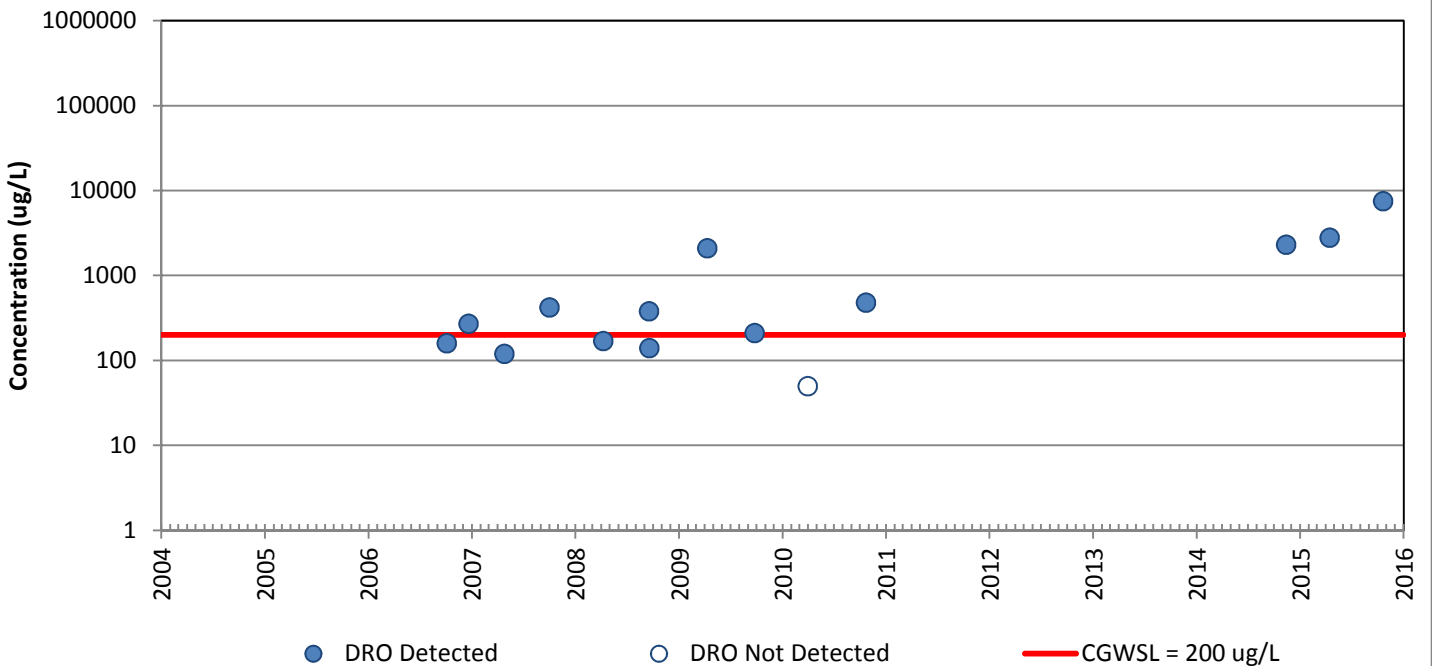


# NCL-32

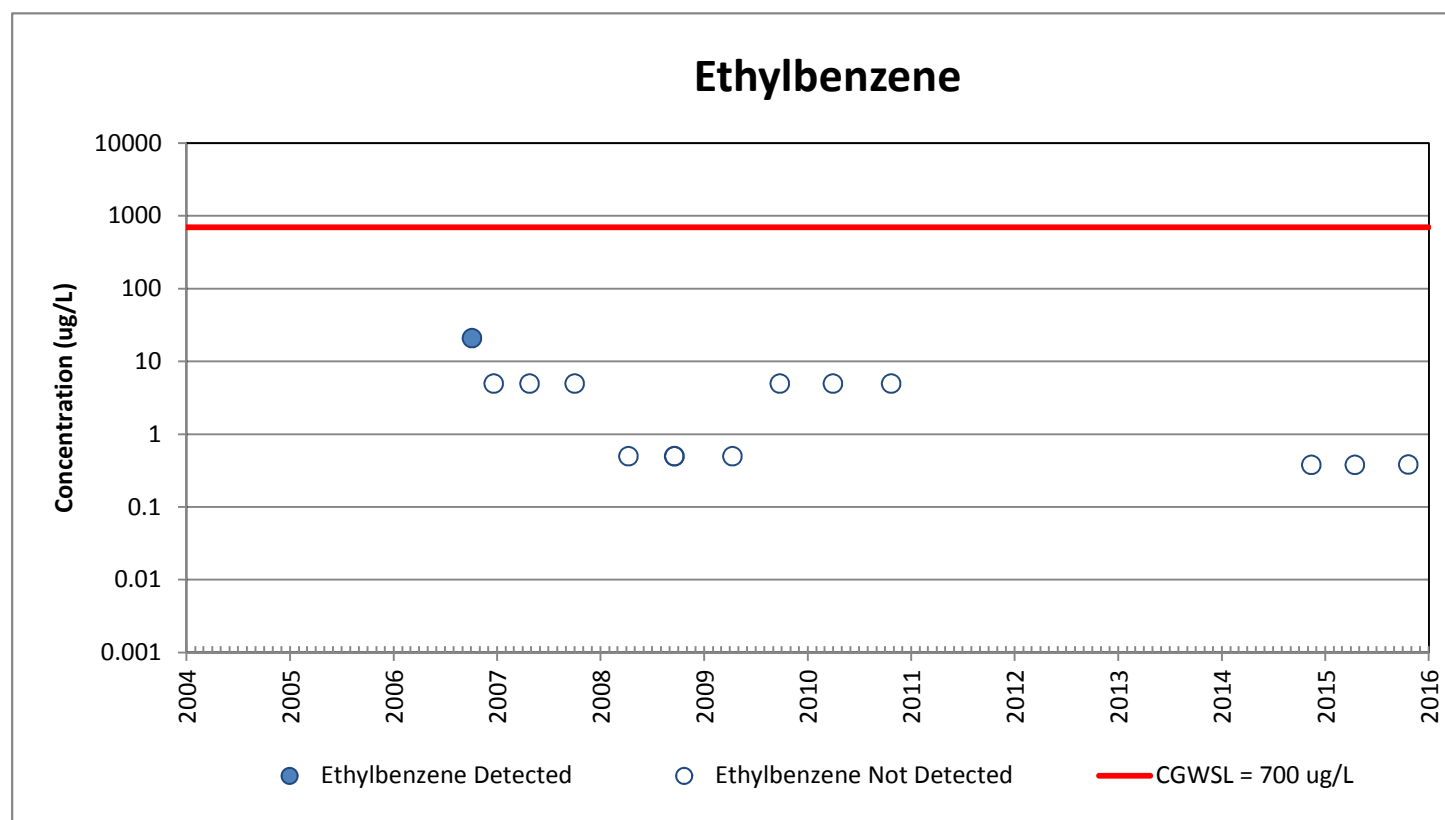
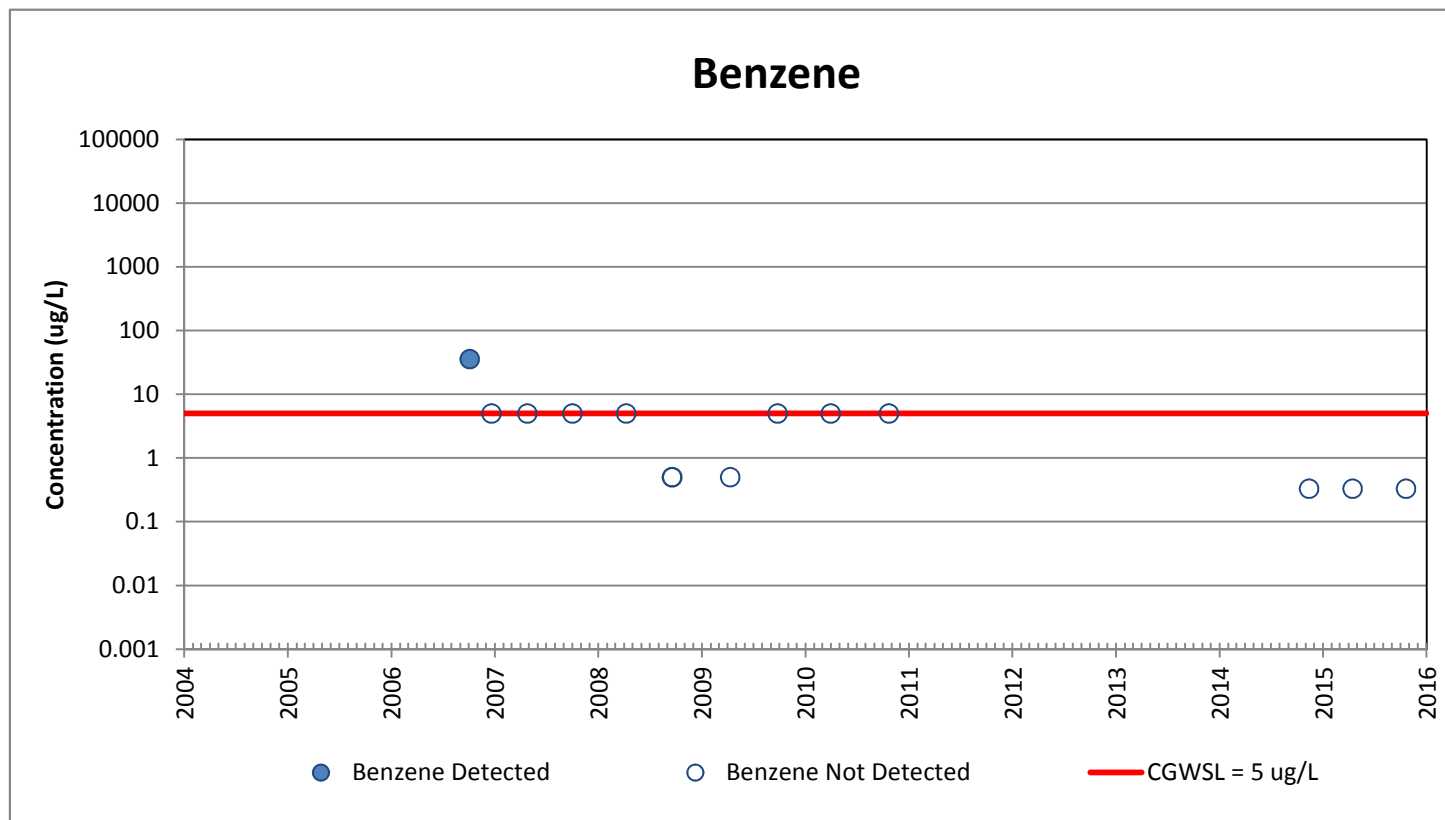
## GRO



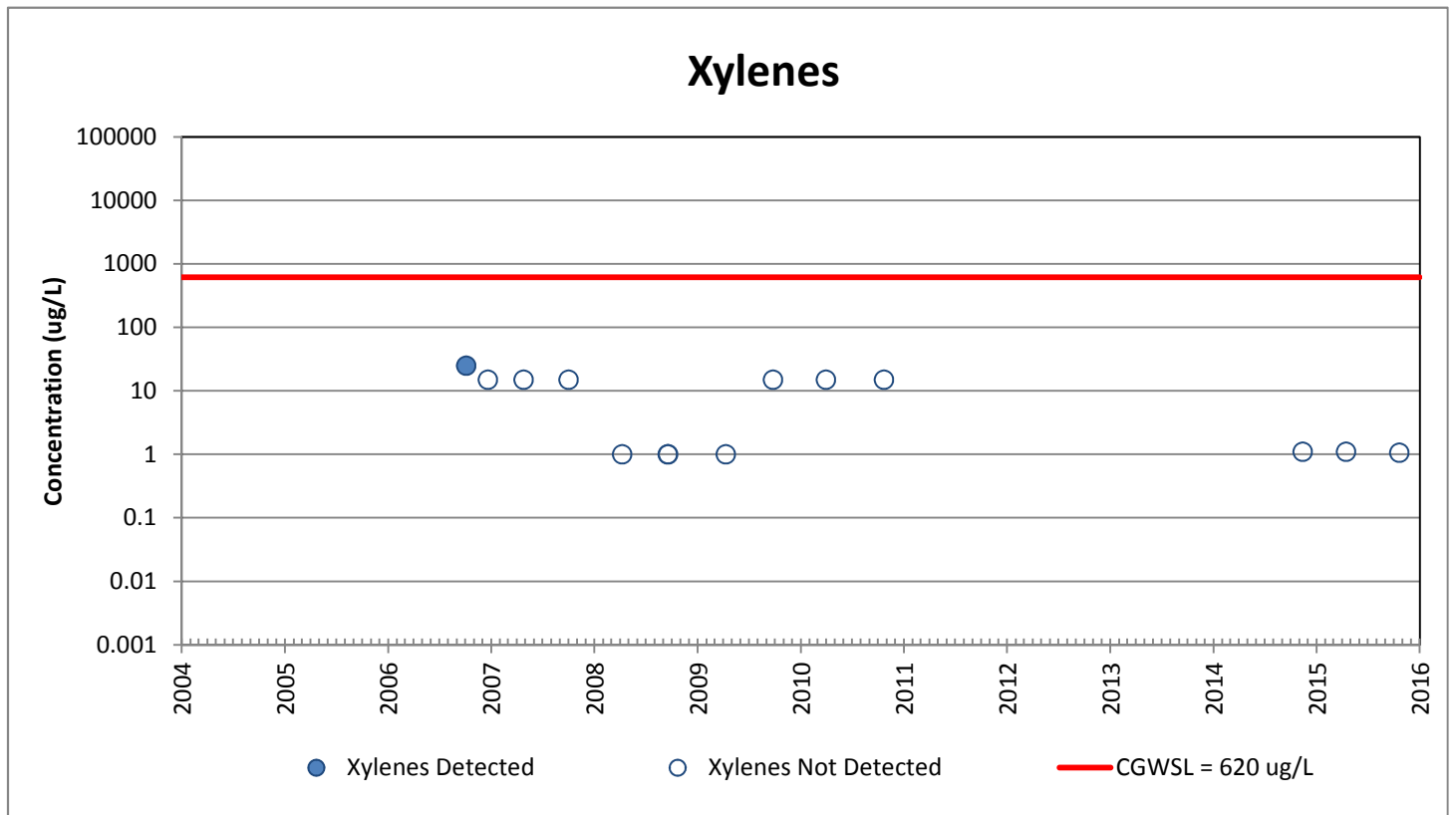
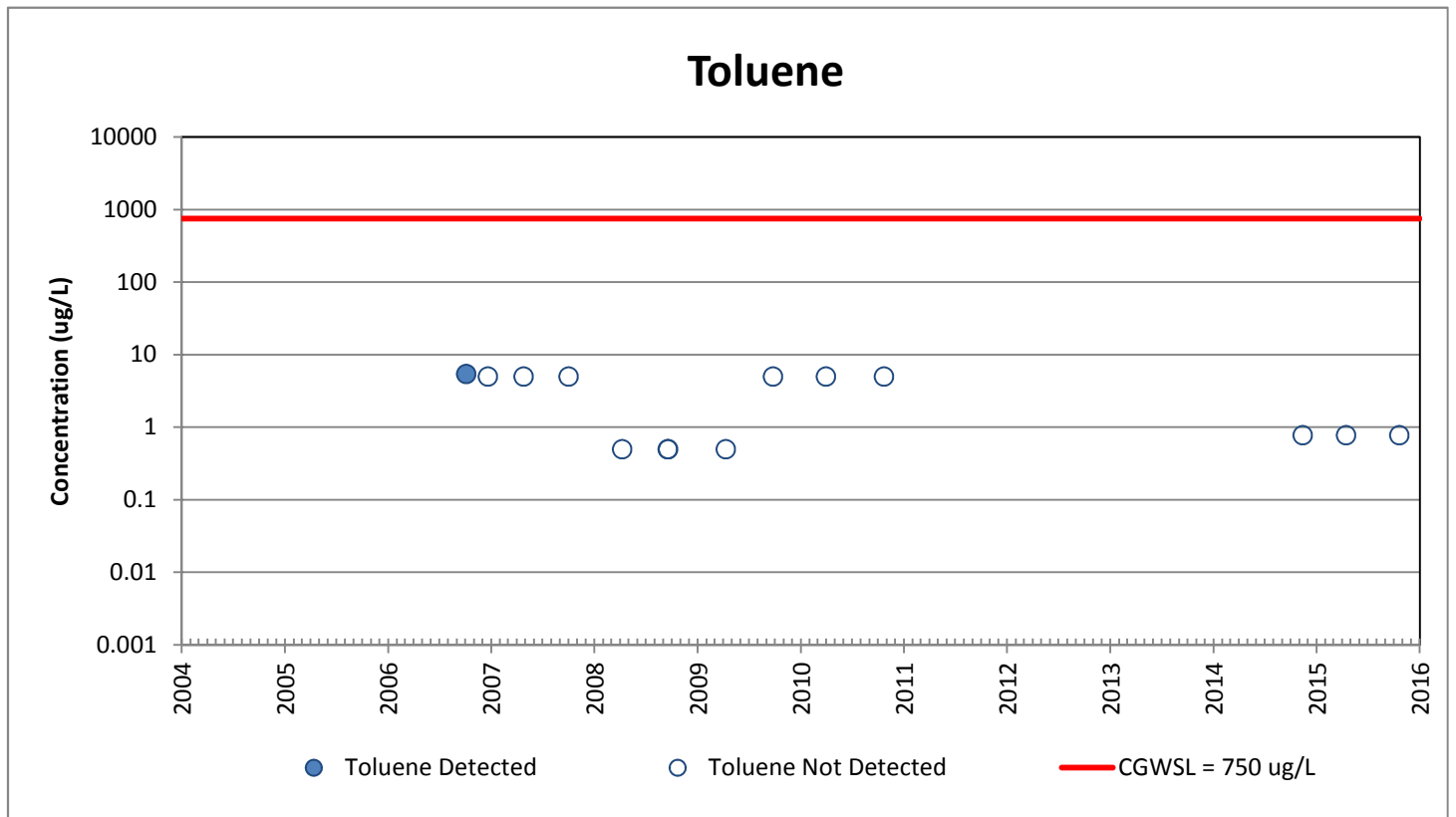
## DRO



# NCL-32

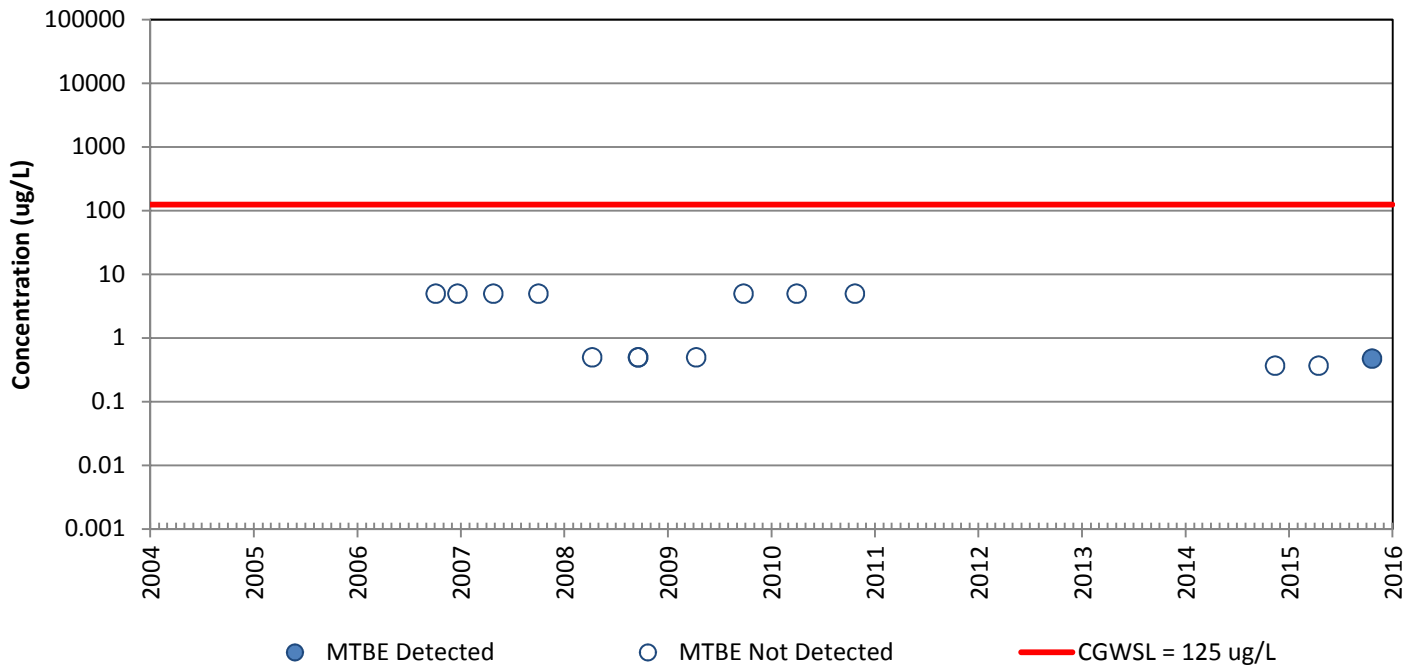


# NCL-32

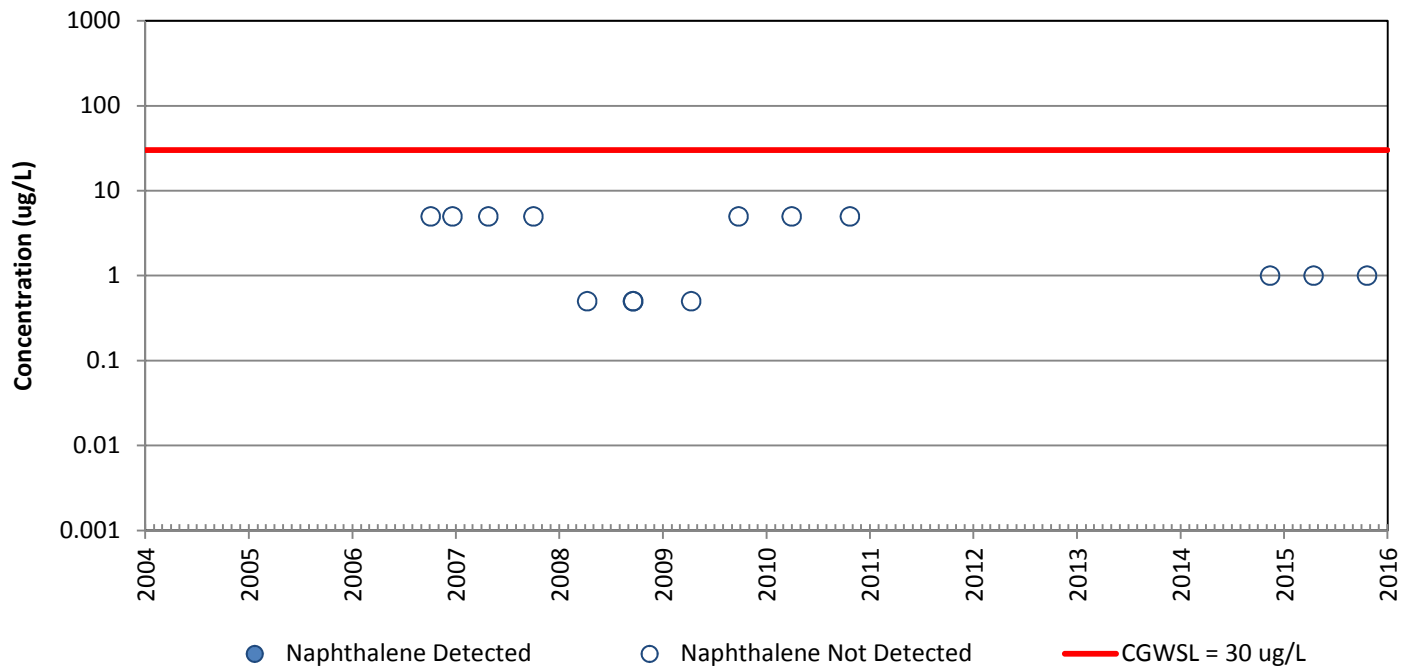


# NCL-32

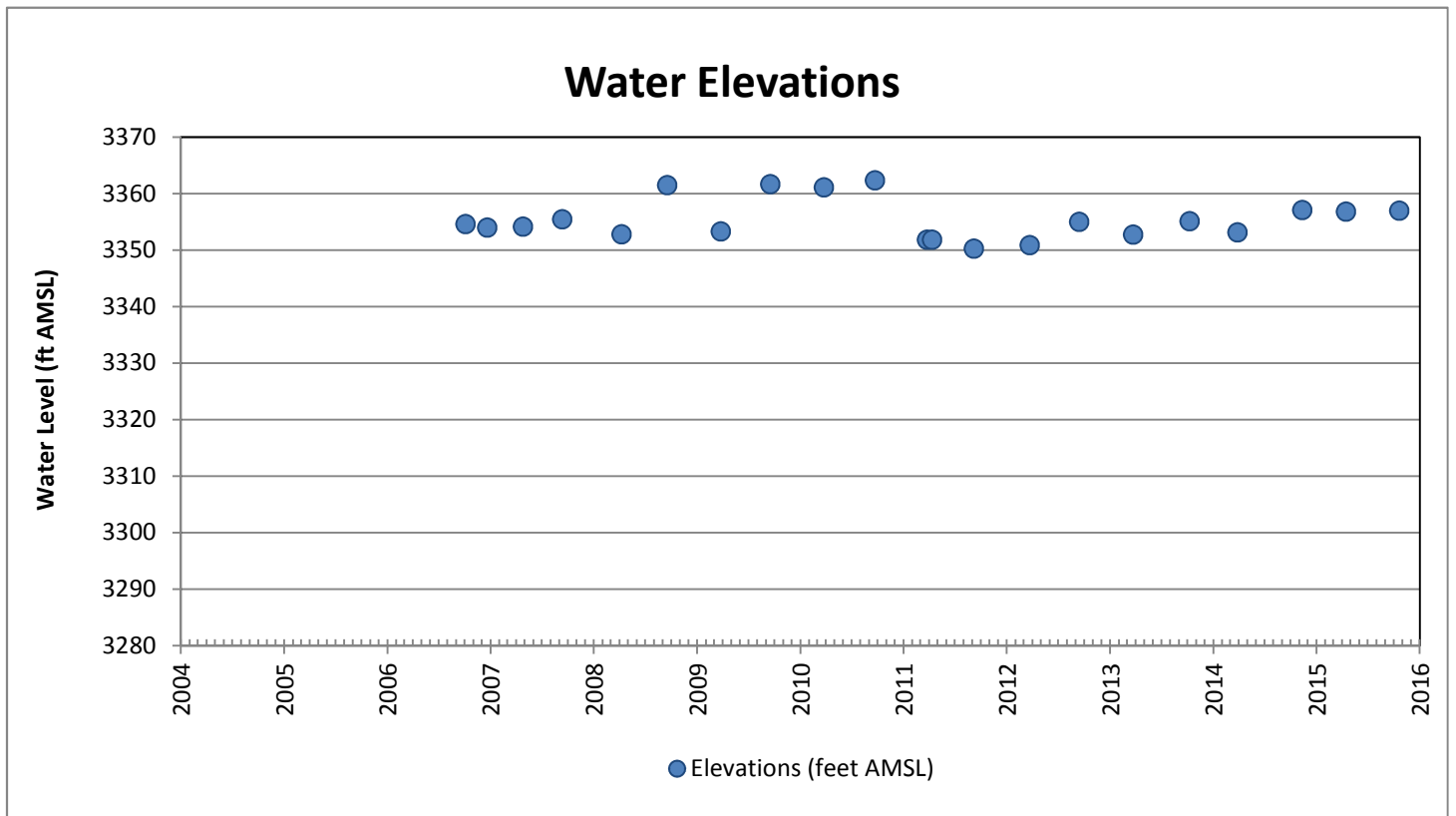
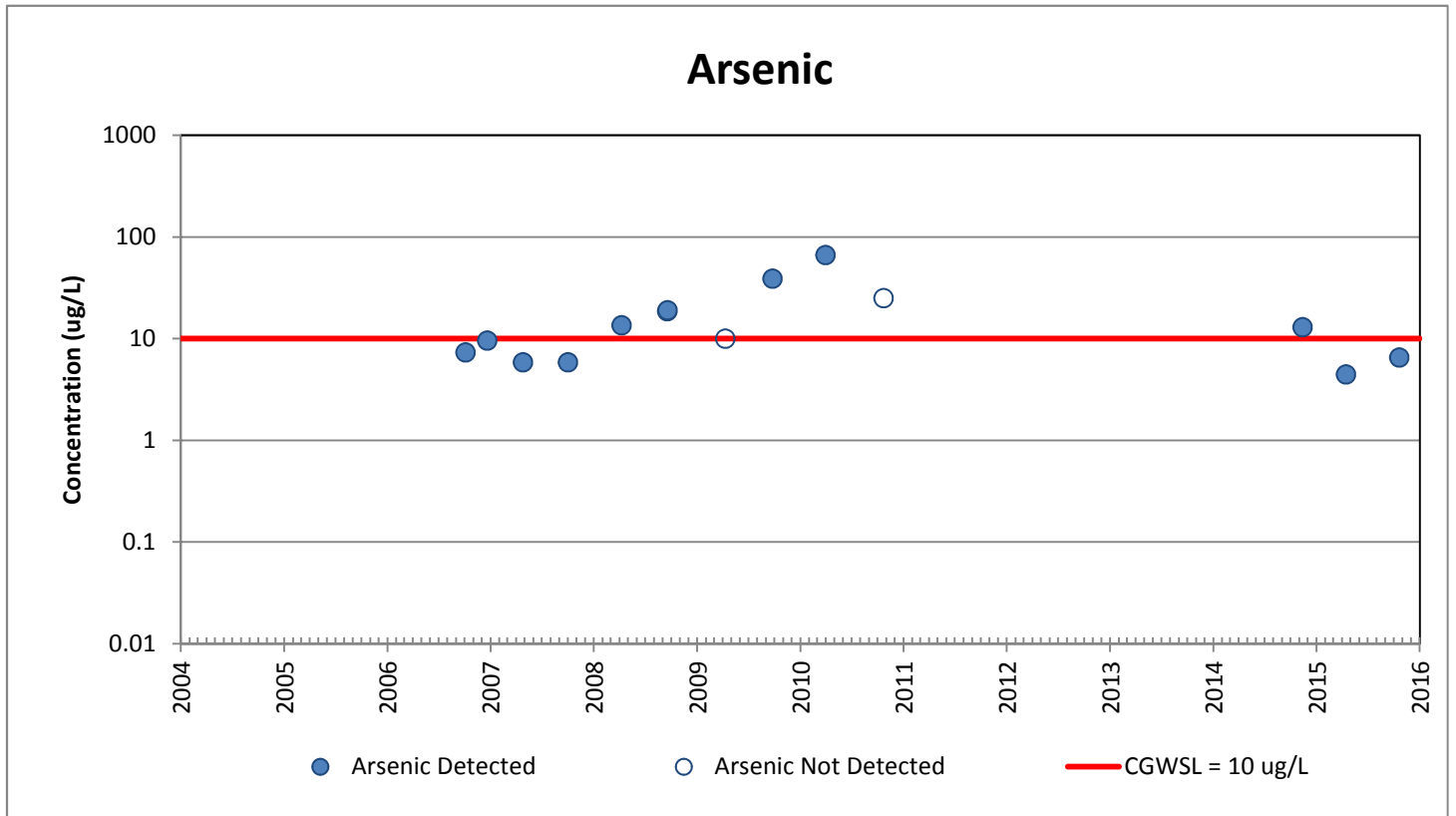
## MTBE



## Naphthalene

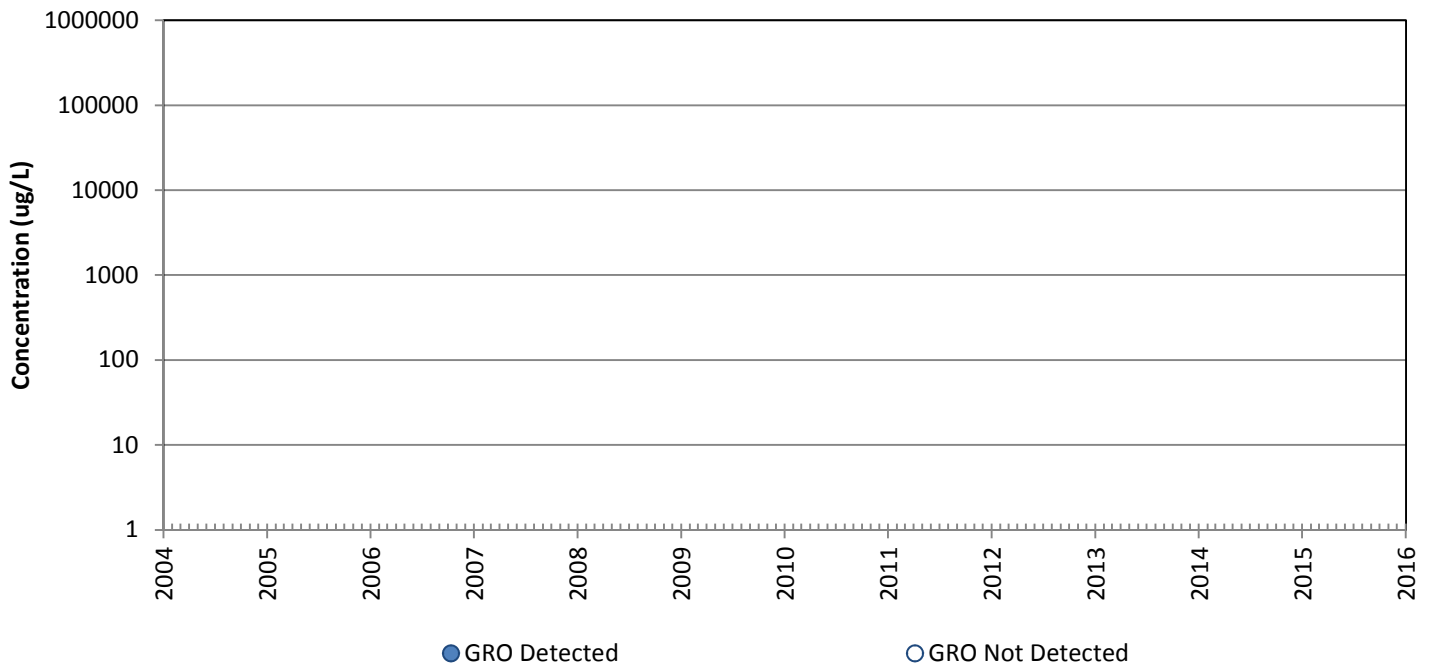


# NCL-32

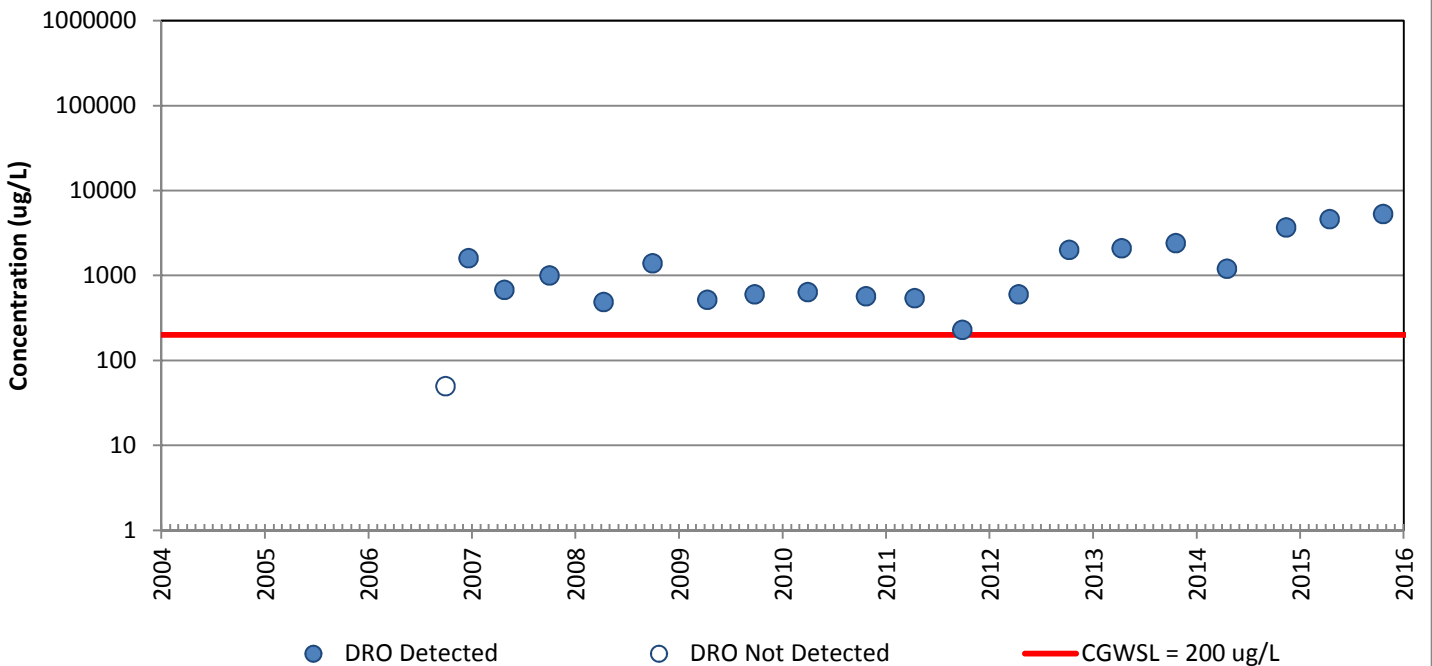


# NCL-33

## GRO

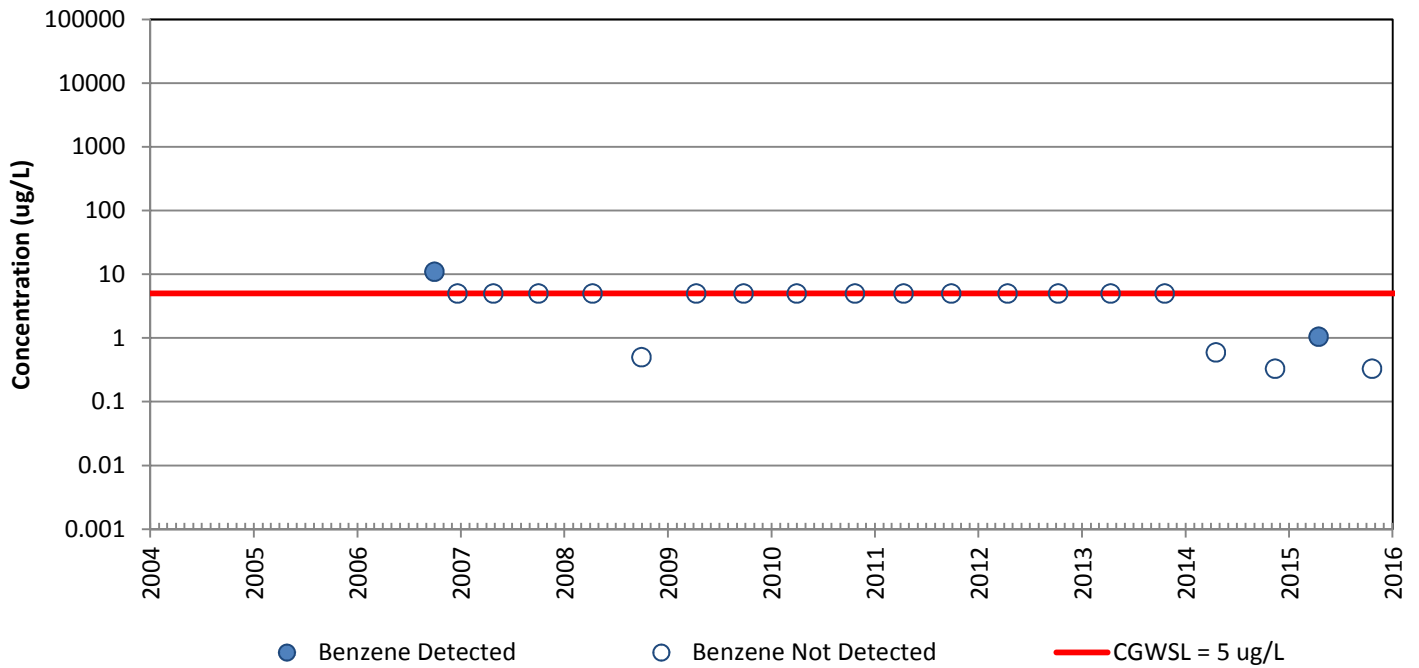


## DRO

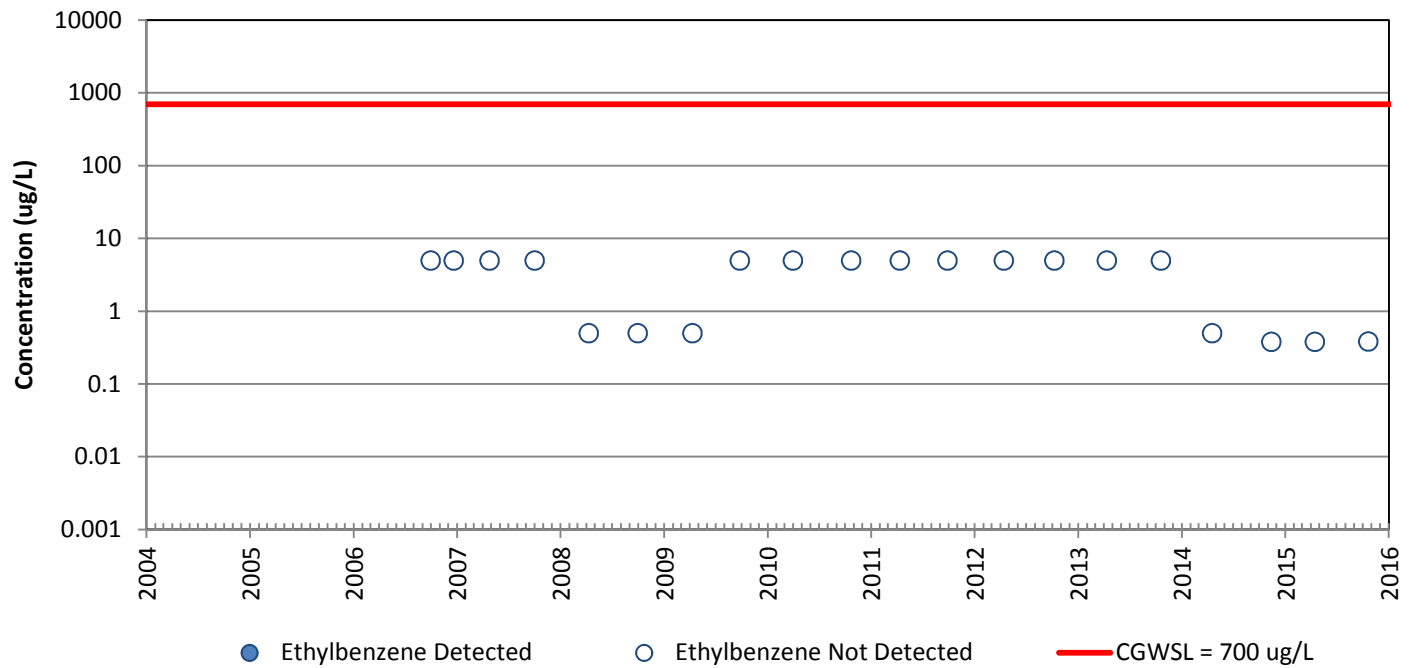


# NCL-33

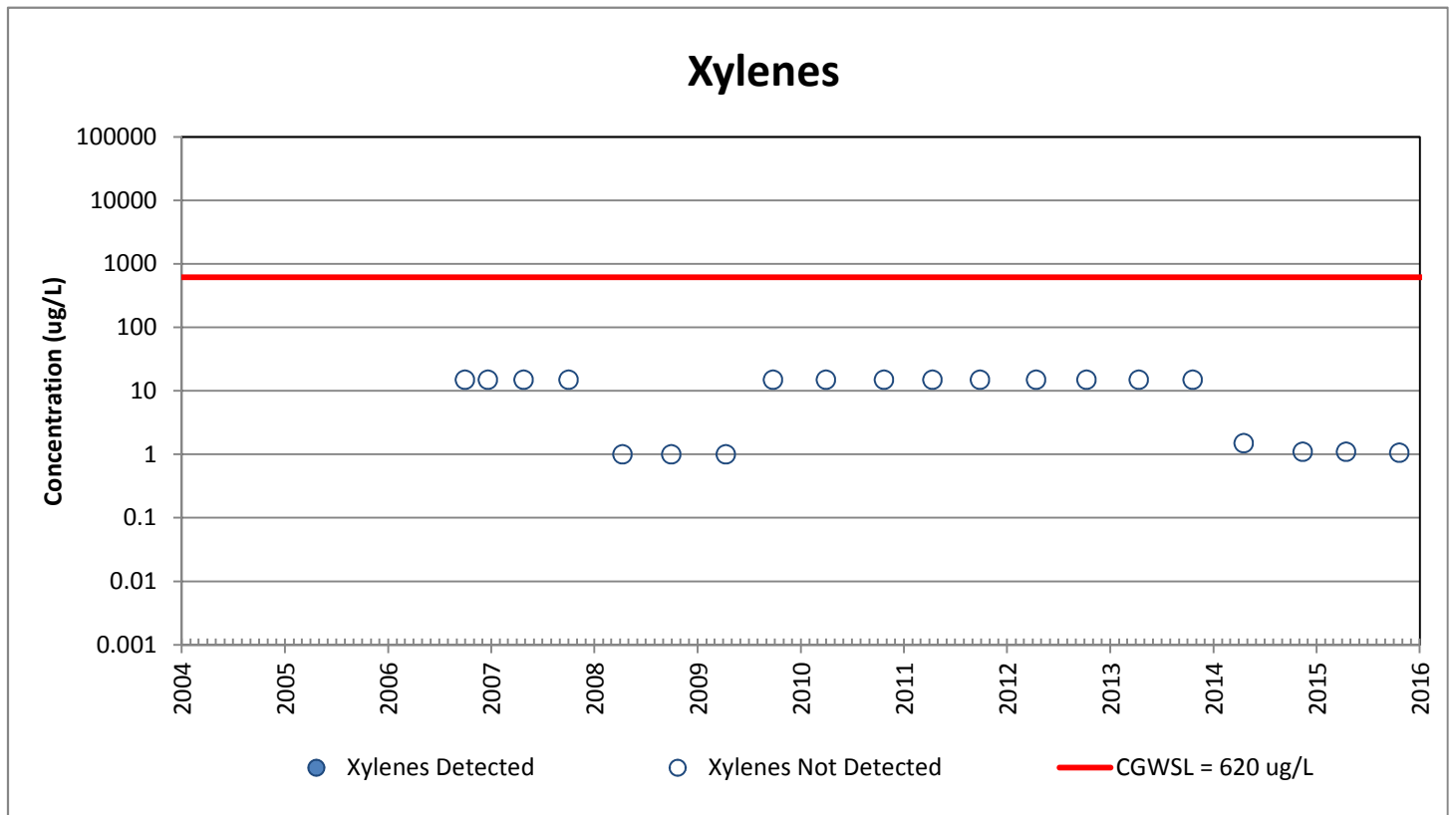
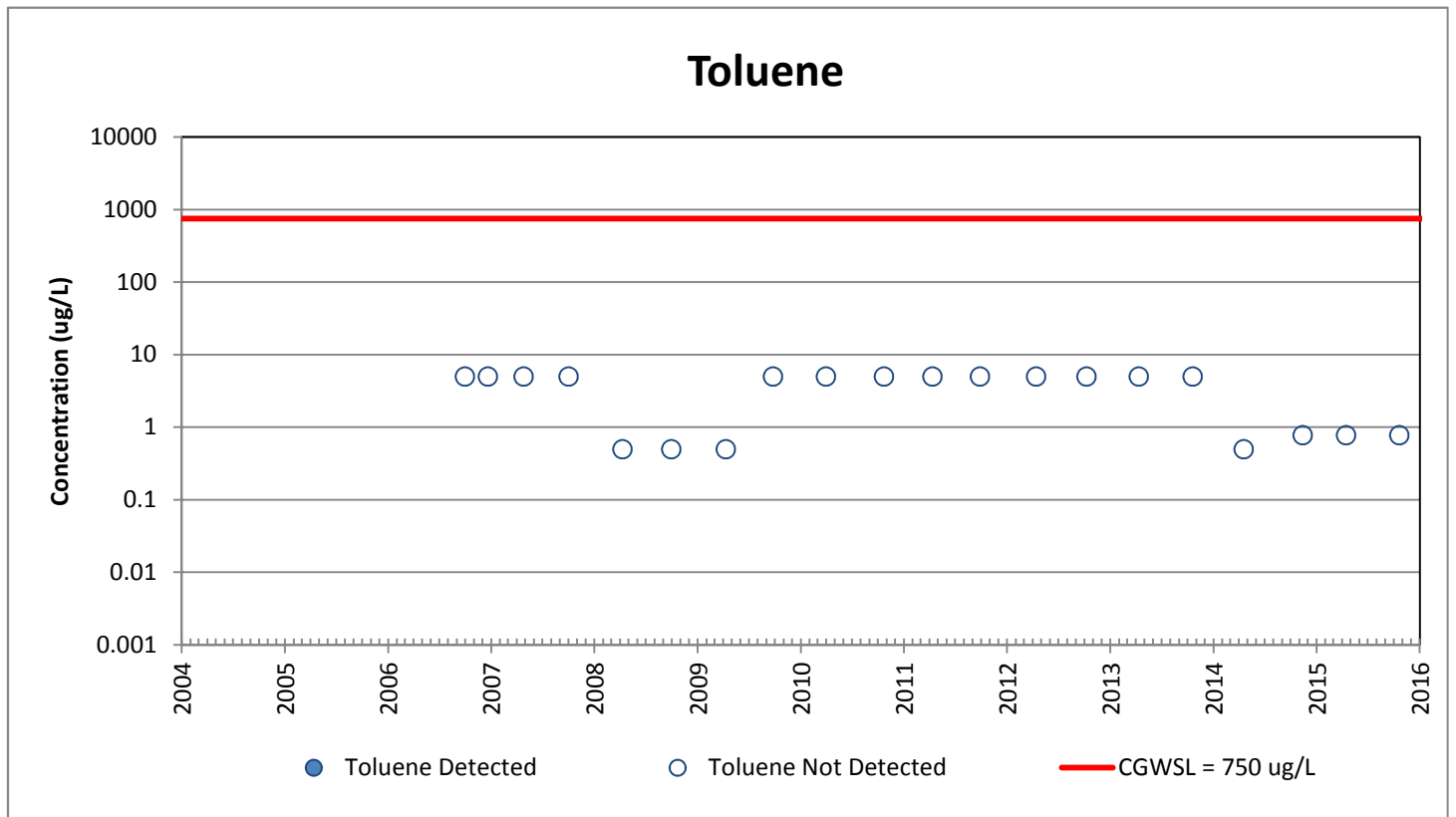
## Benzene



## Ethylbenzene

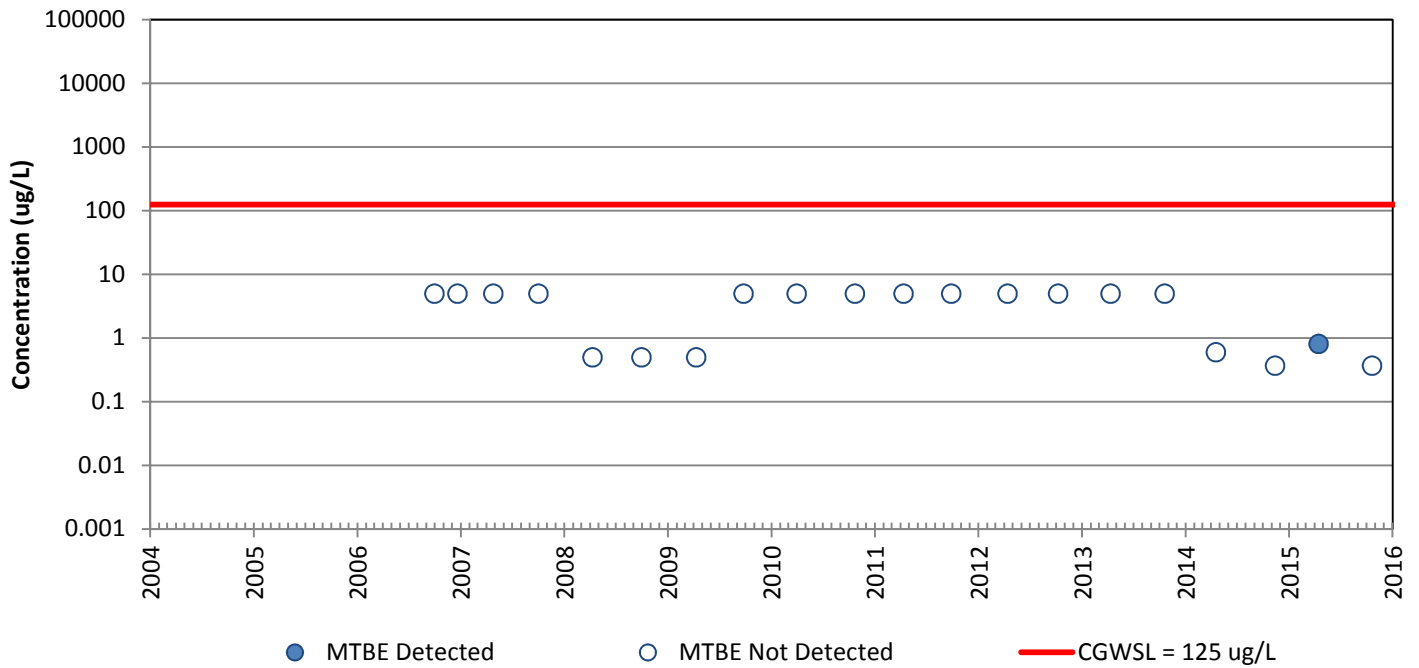


# NCL-33

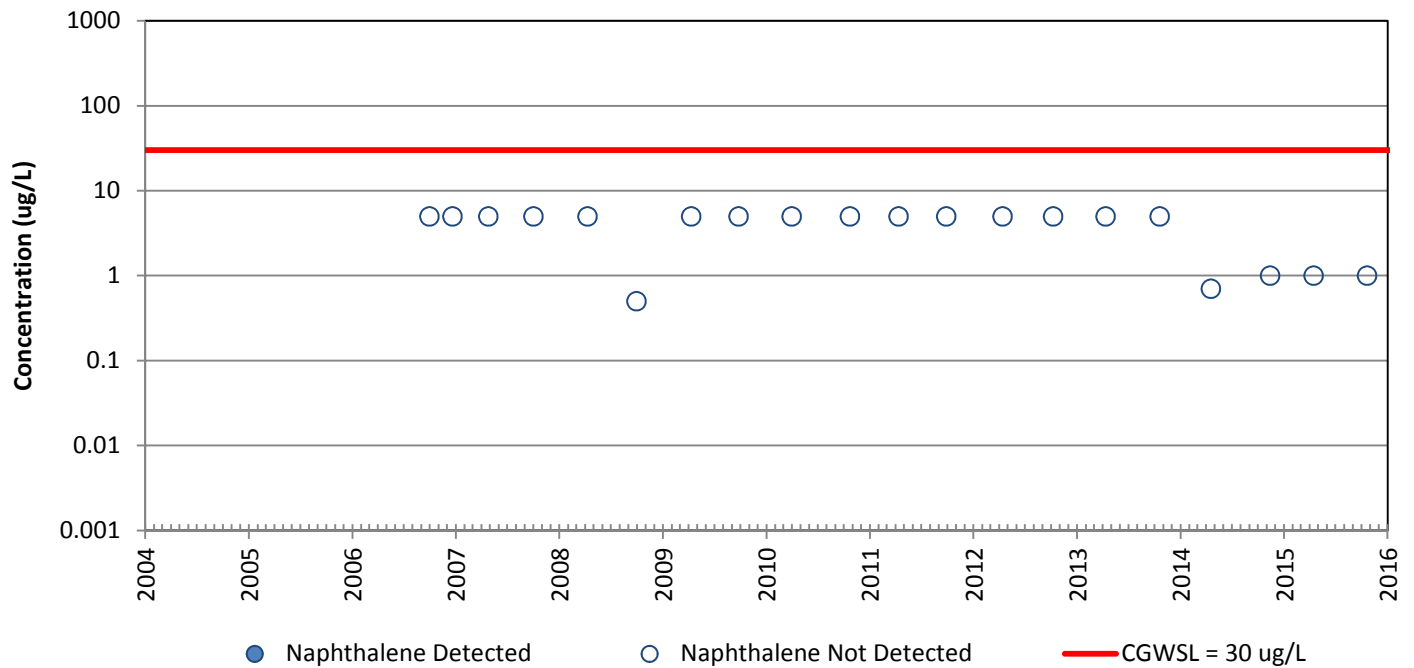


# NCL-33

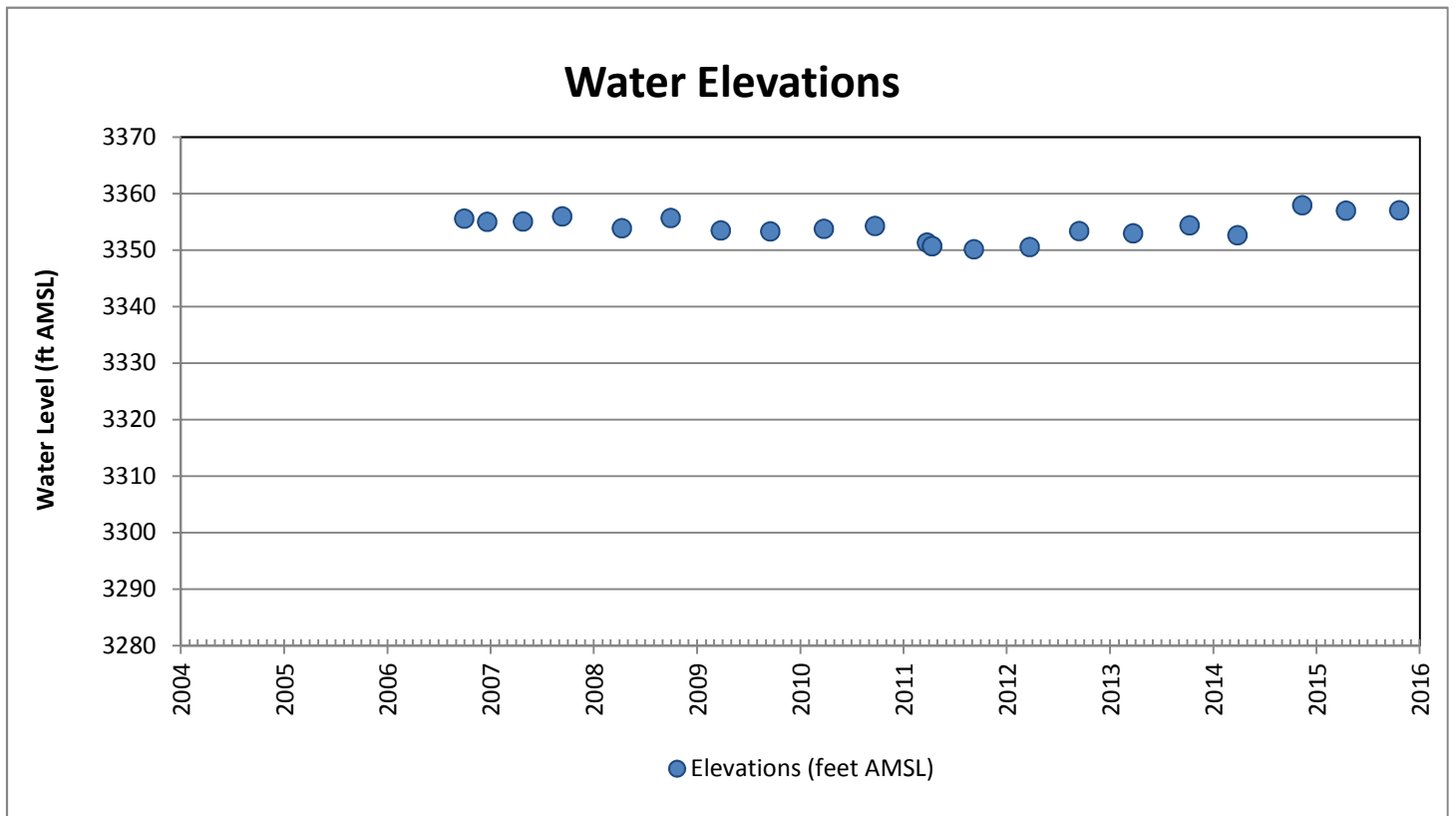
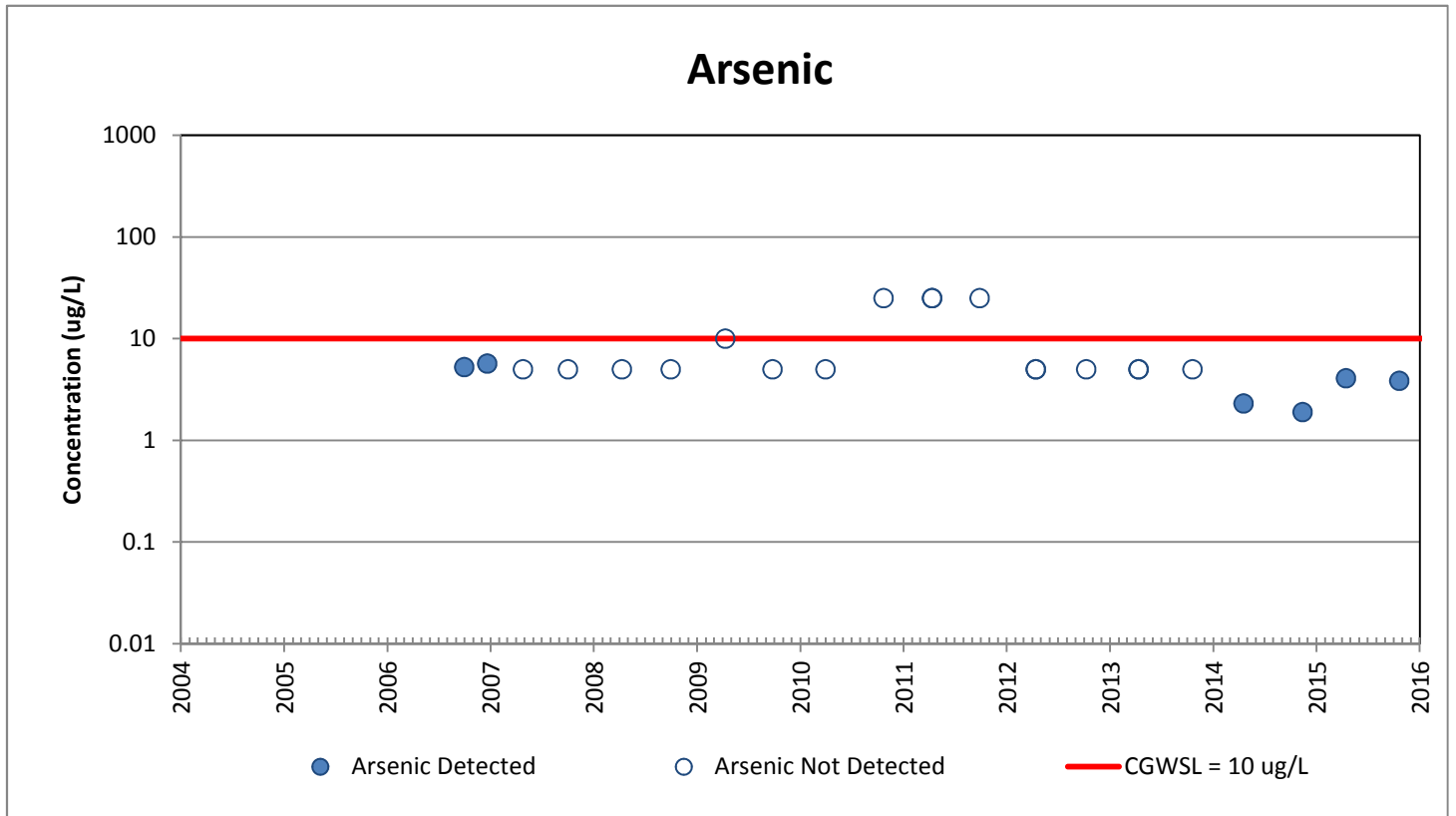
## MTBE



## Naphthalene

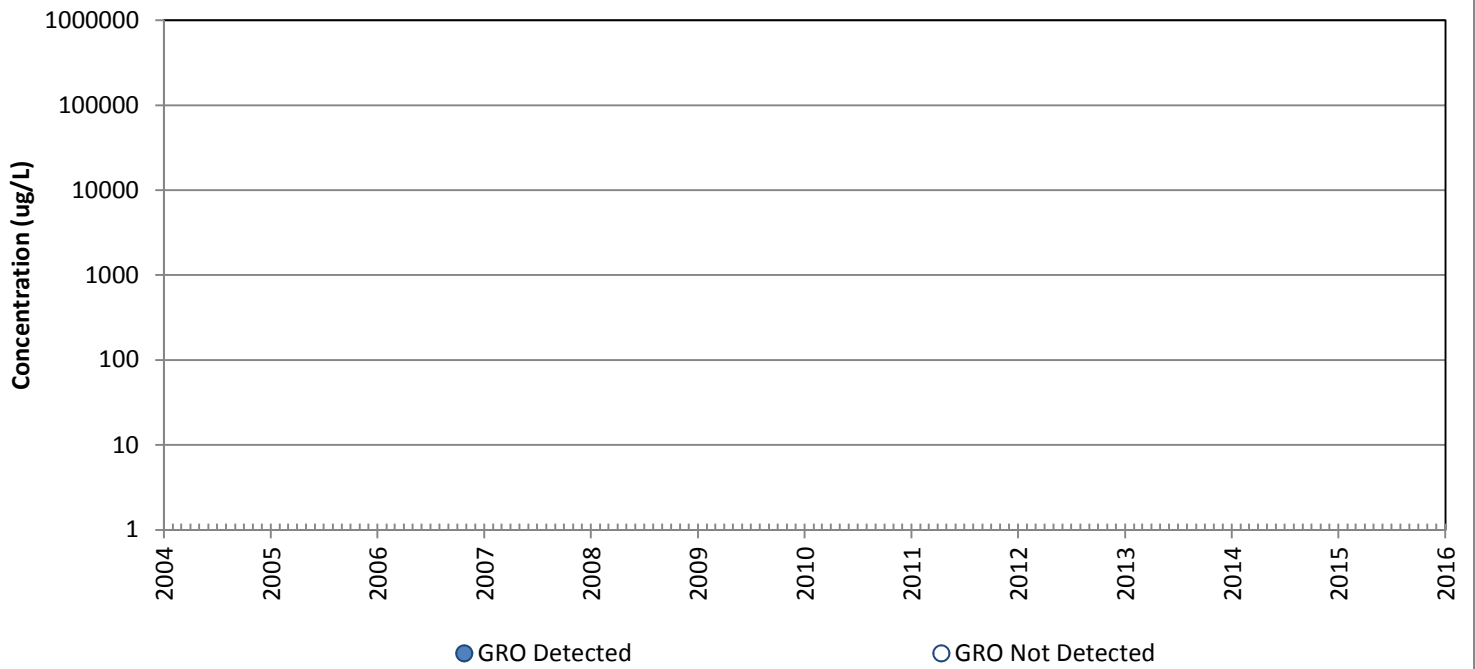


# NCL-33

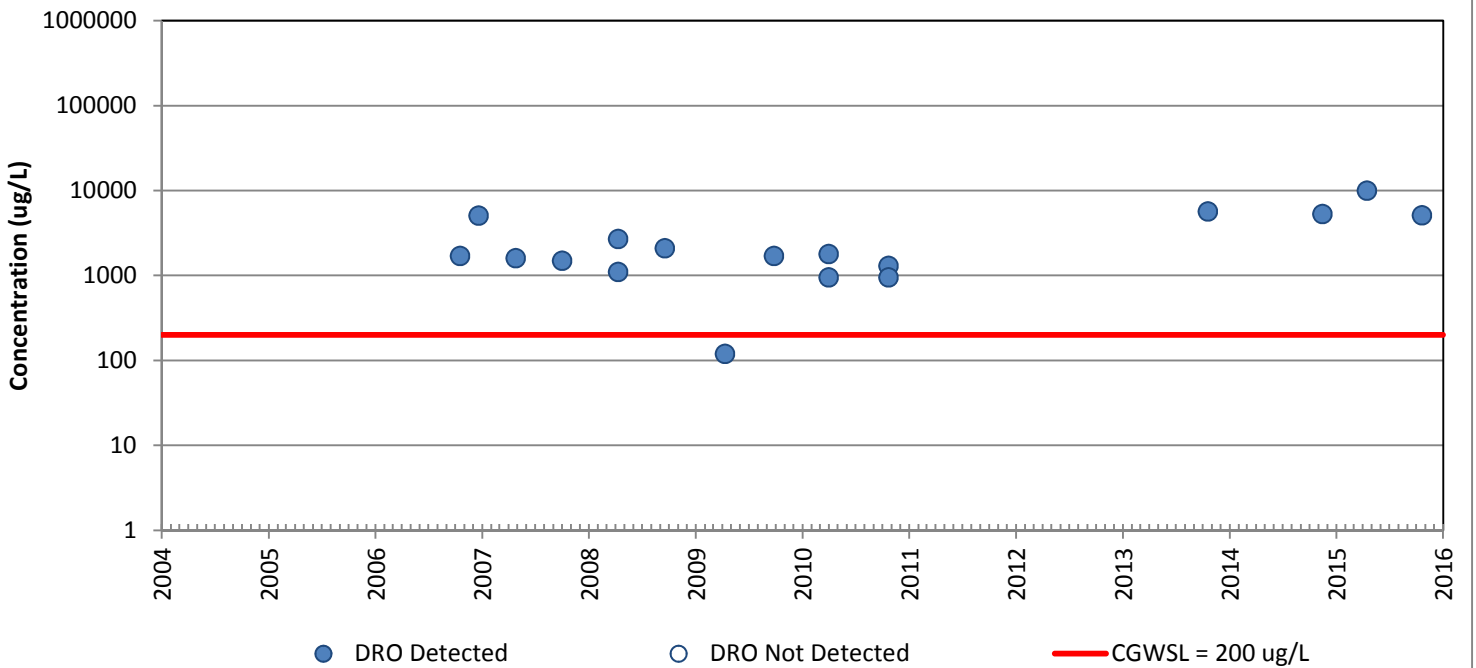


# NCL-34

## GRO

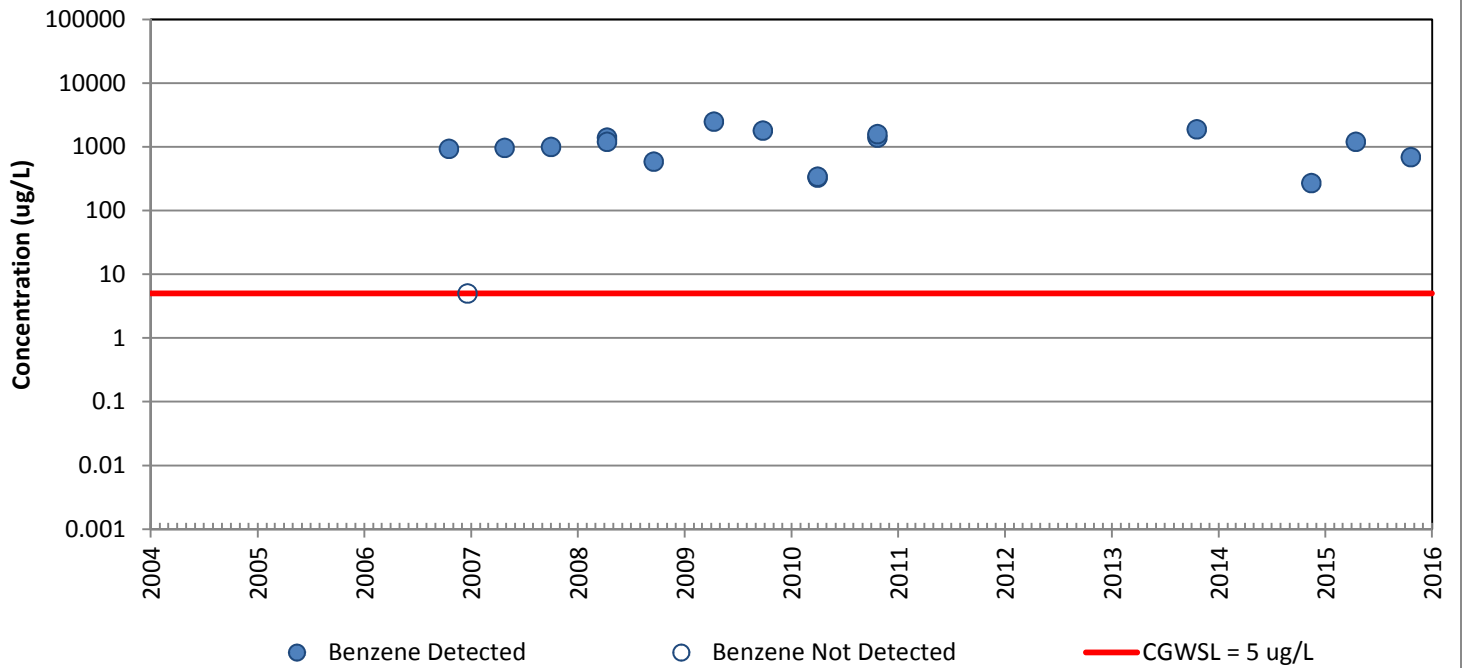


## DRO

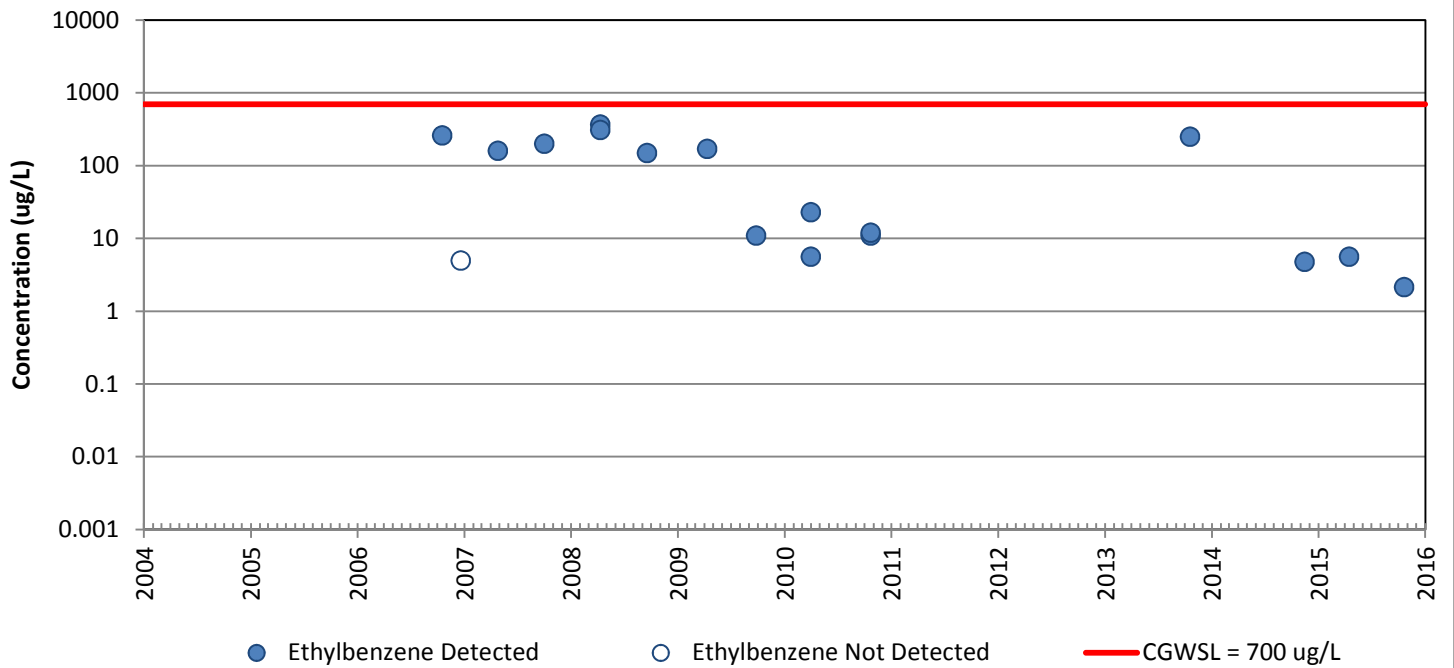


# NCL-34

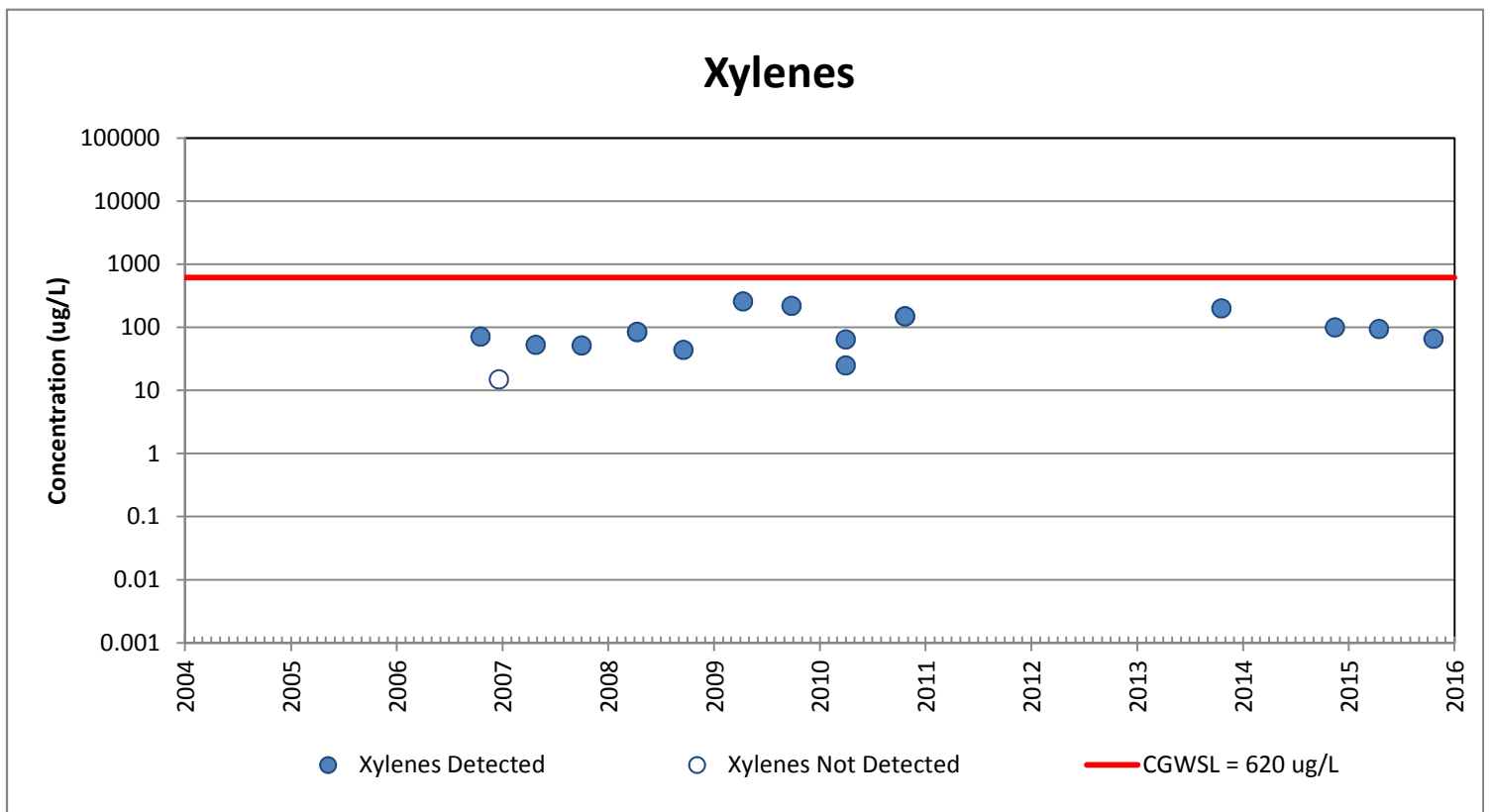
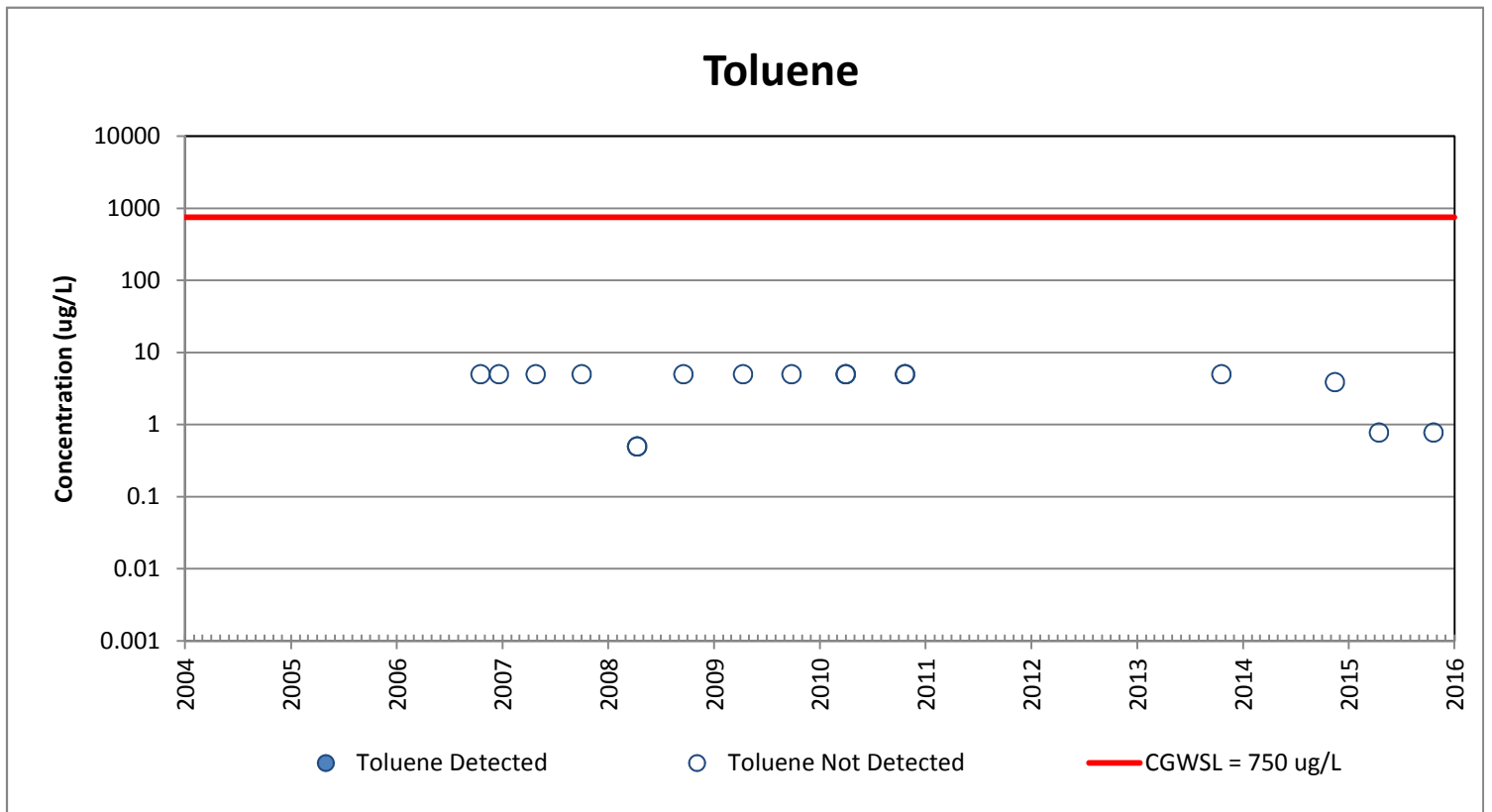
## Benzene



## Ethylbenzene

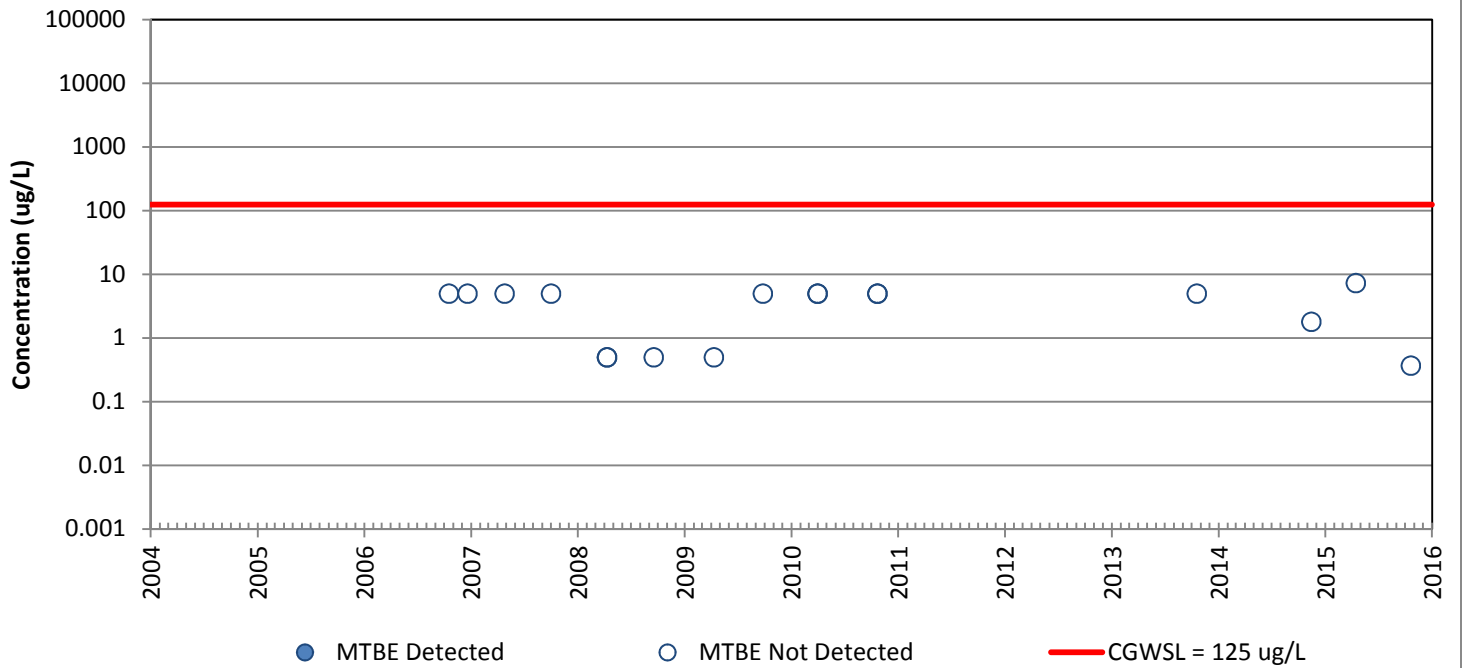


# NCL-34

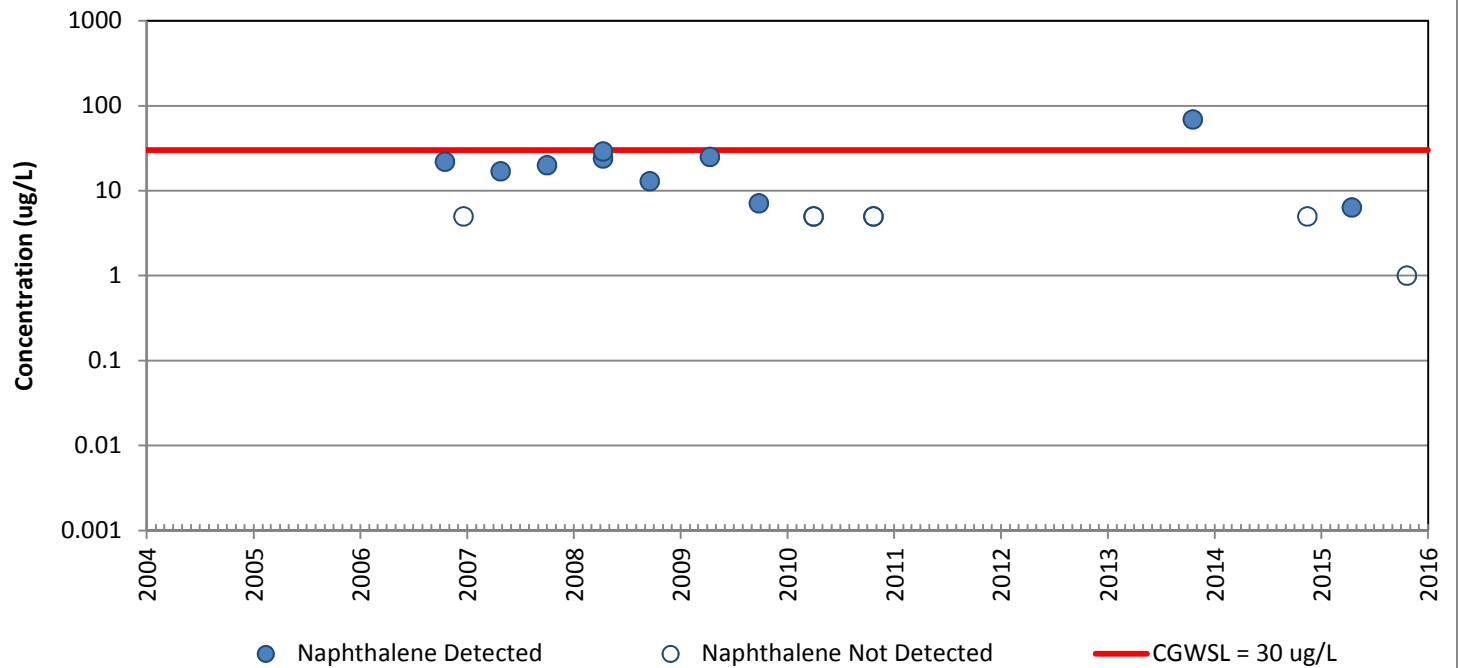


# NCL-34

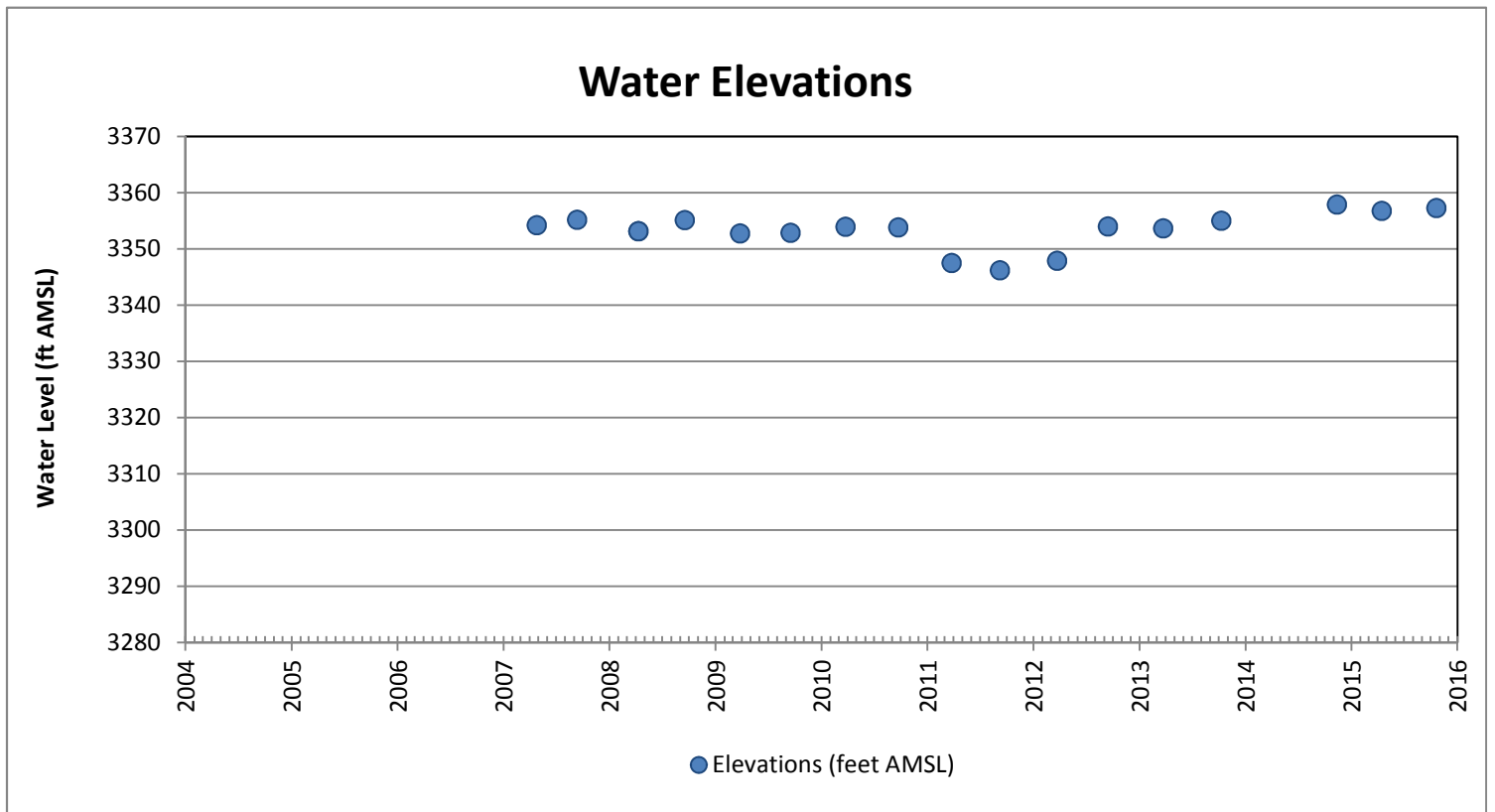
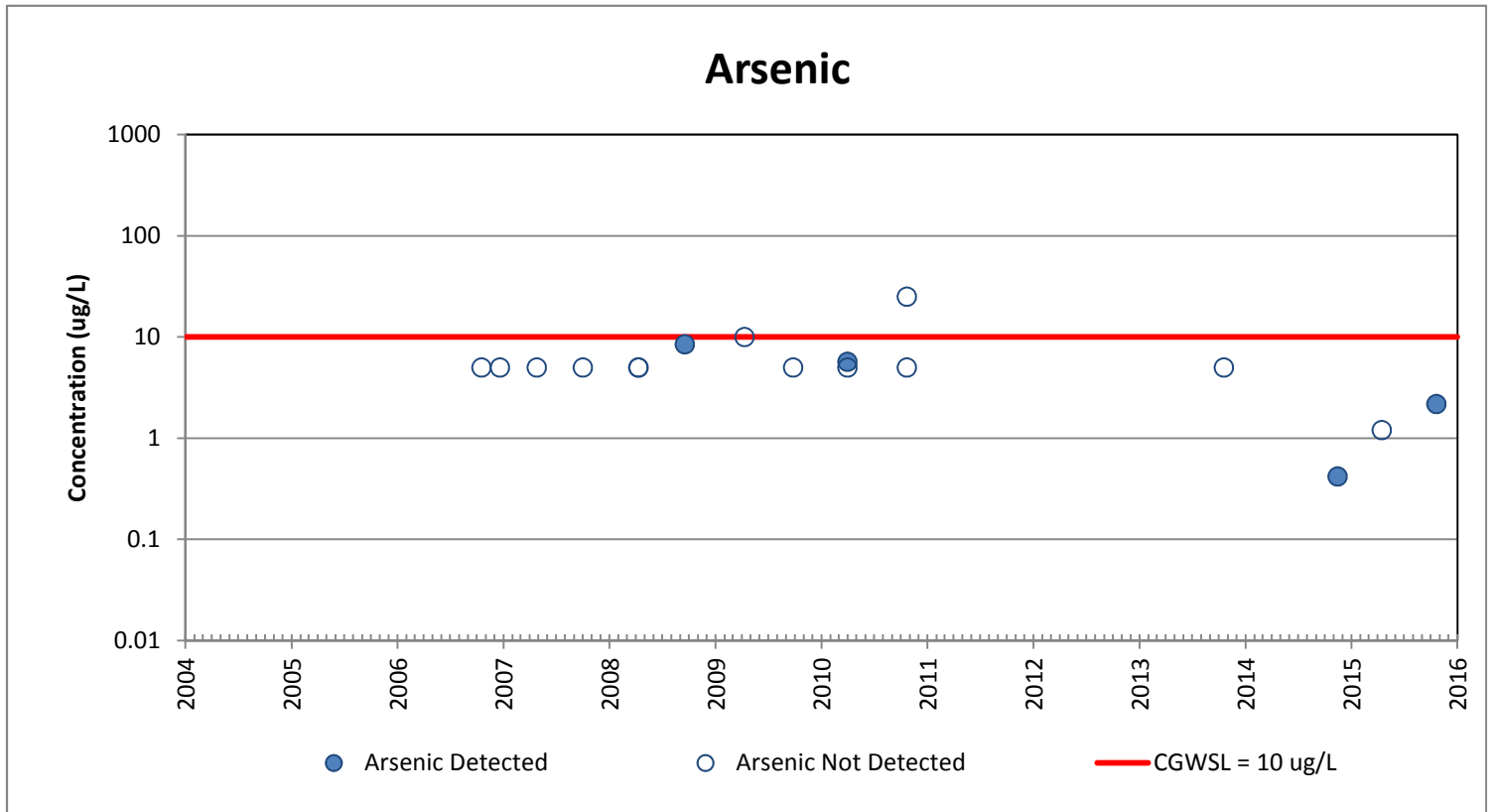
## MTBE



## Naphthalene

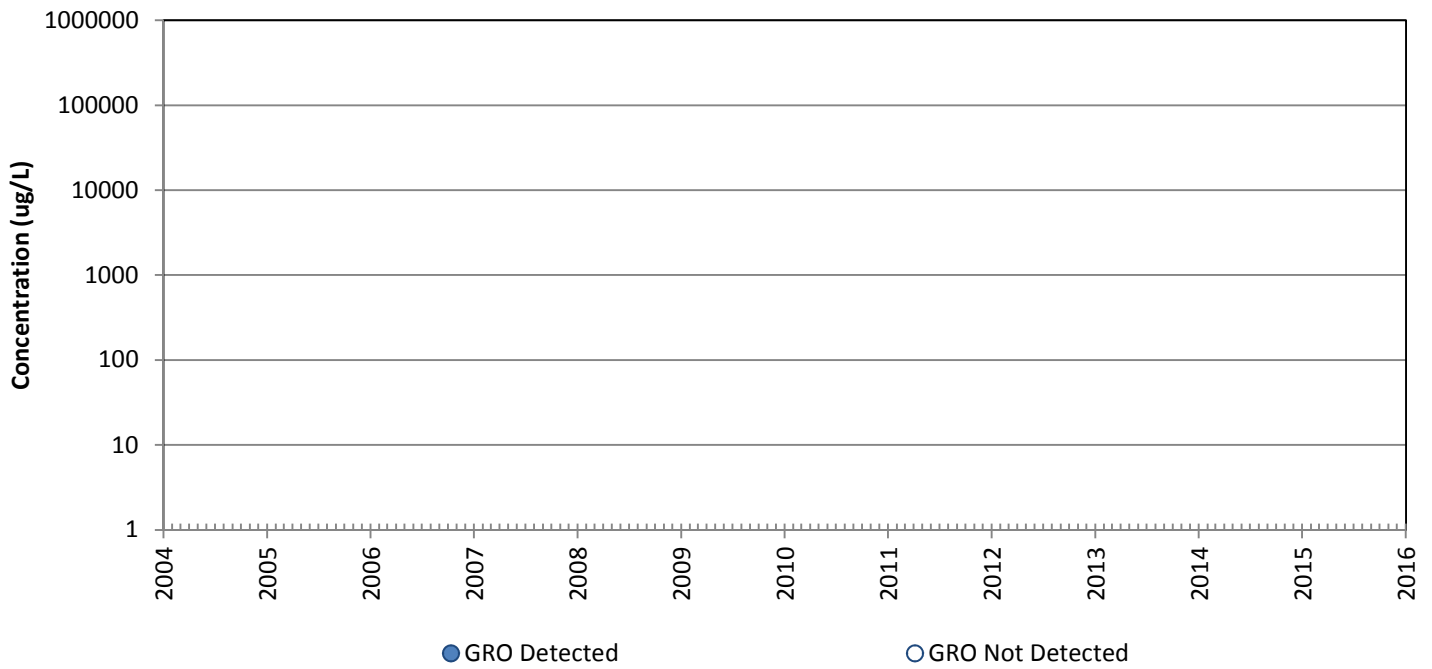


# NCL-34

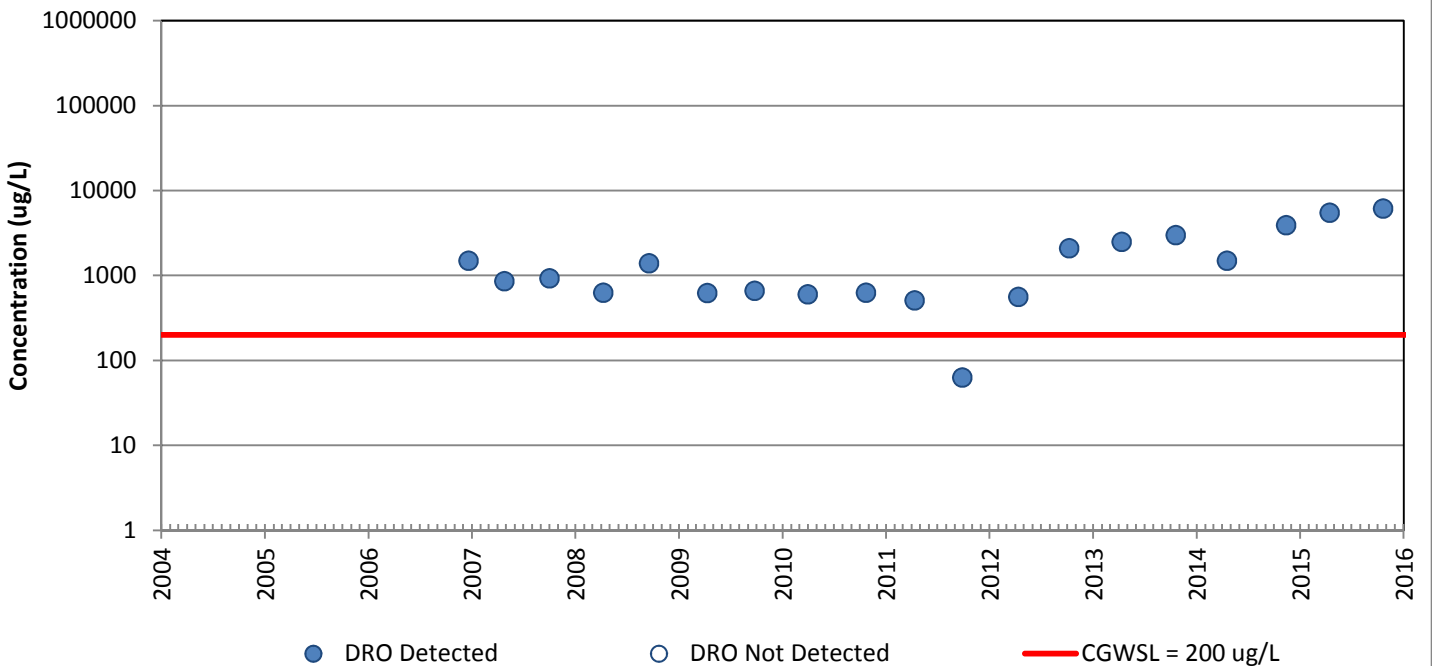


# NCL-44

## GRO

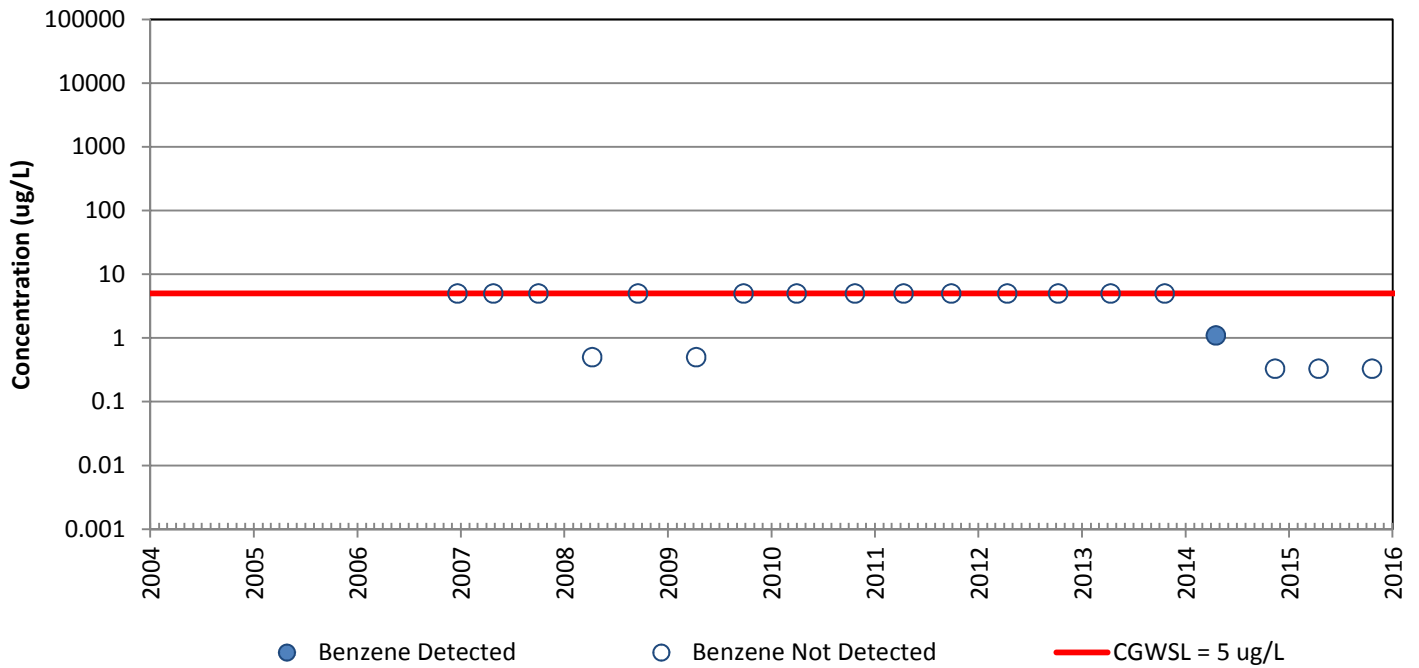


## DRO

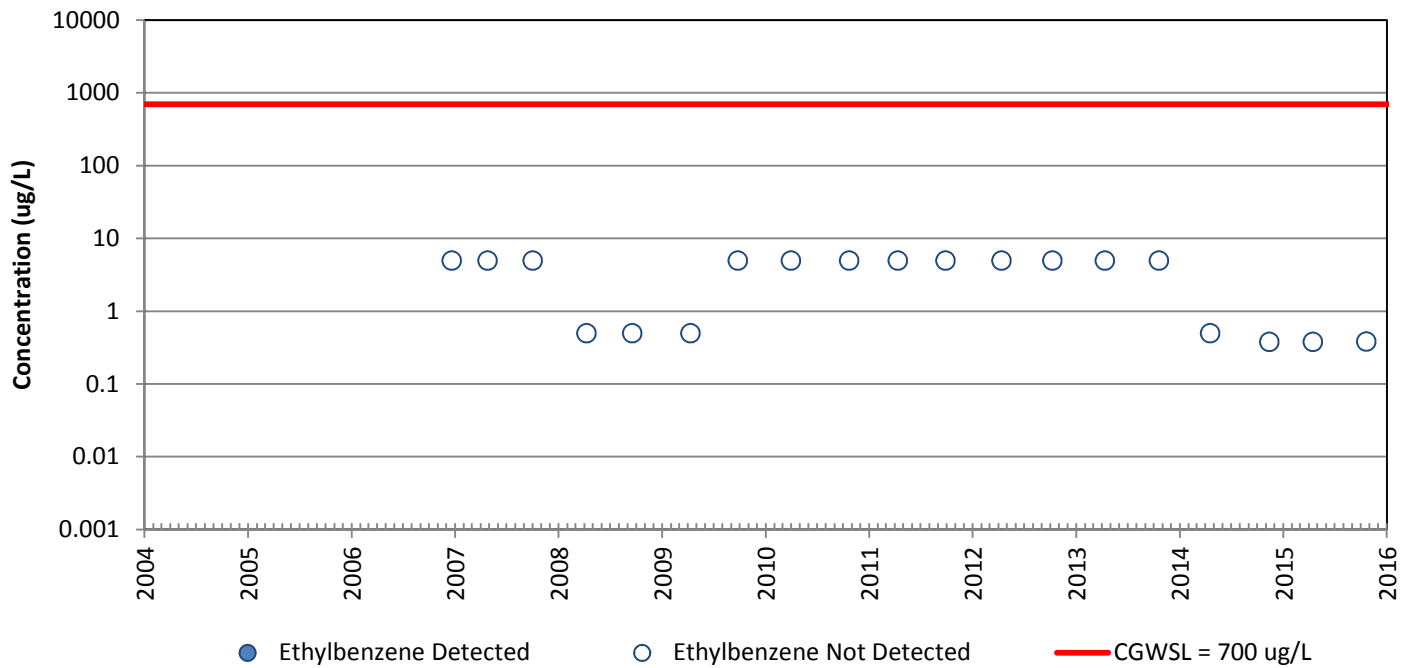


# NCL-44

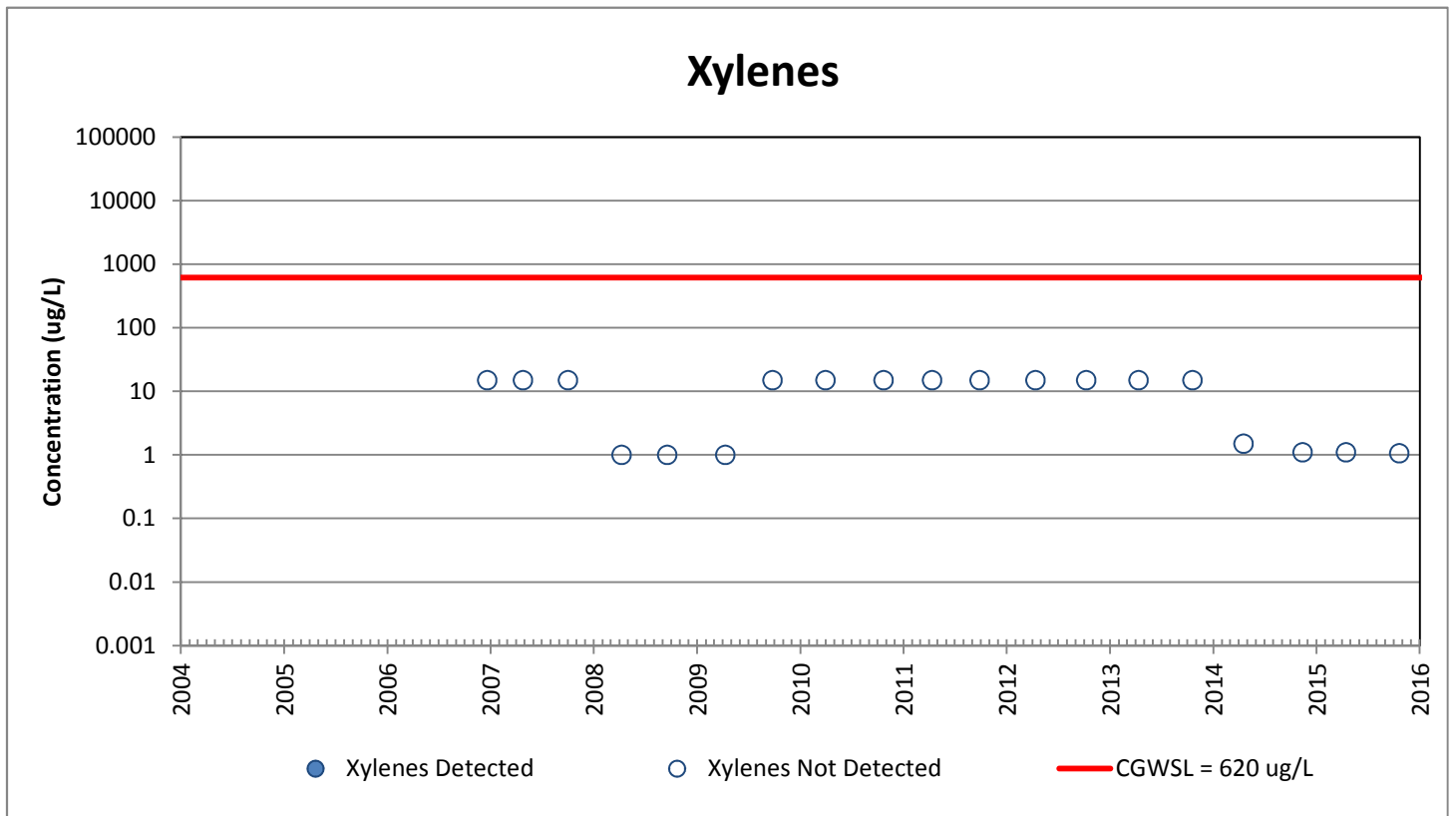
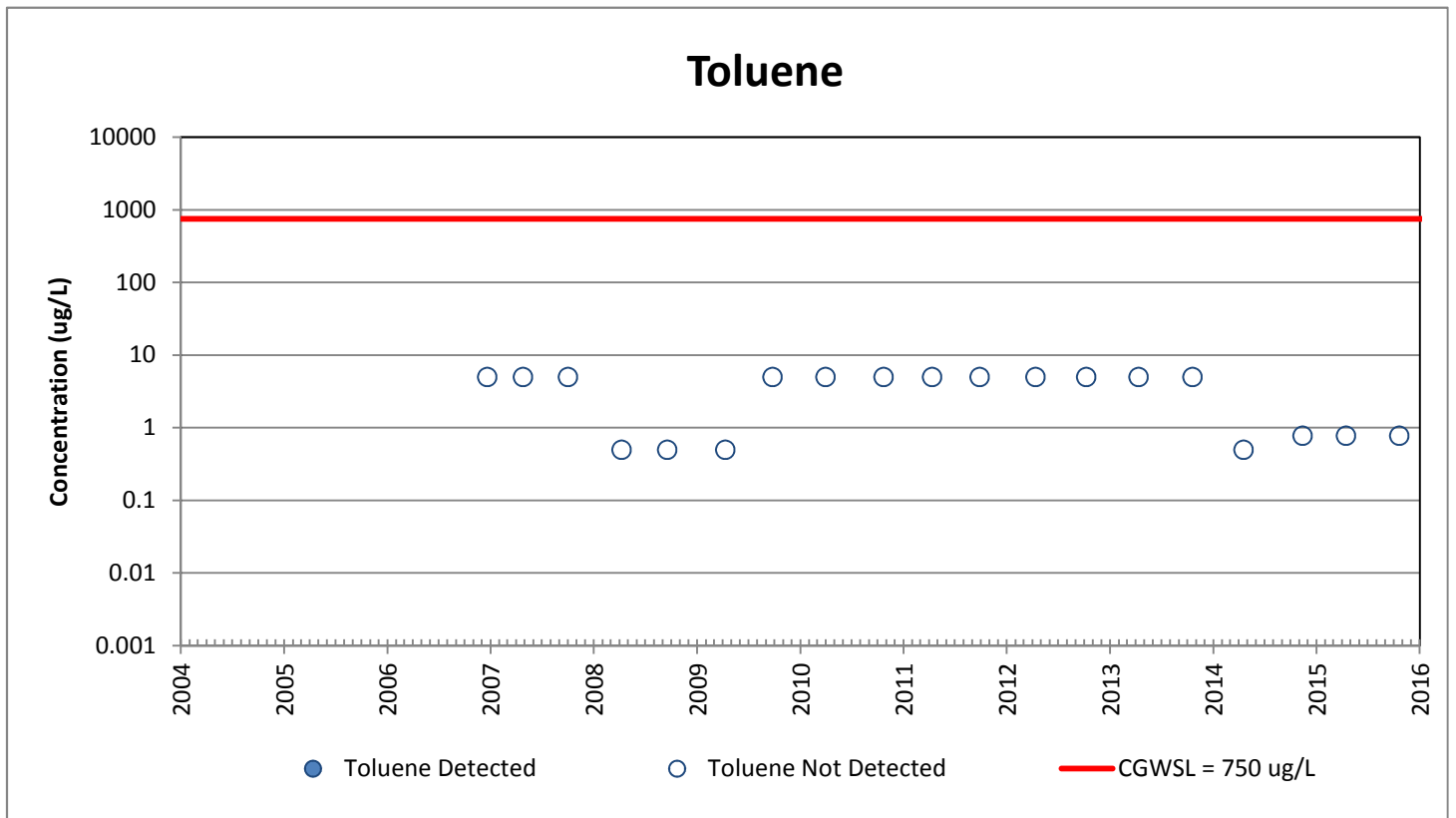
## Benzene



## Ethylbenzene

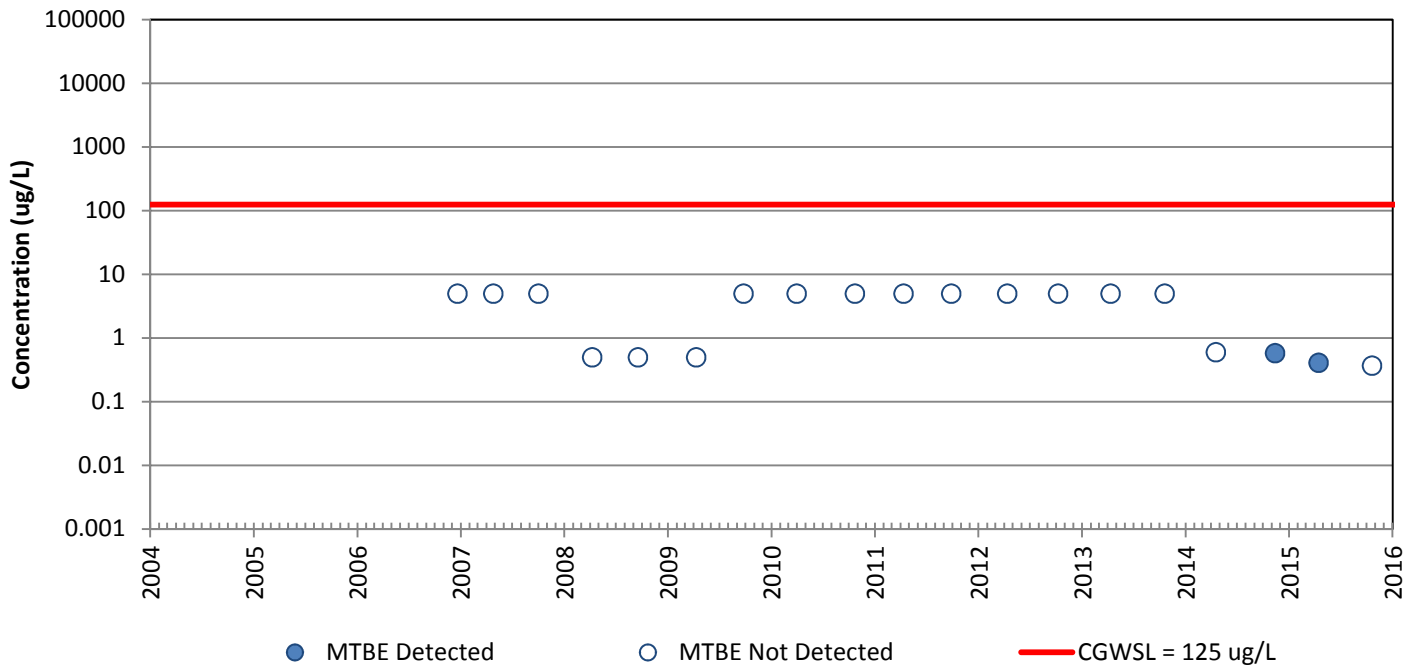


# NCL-44

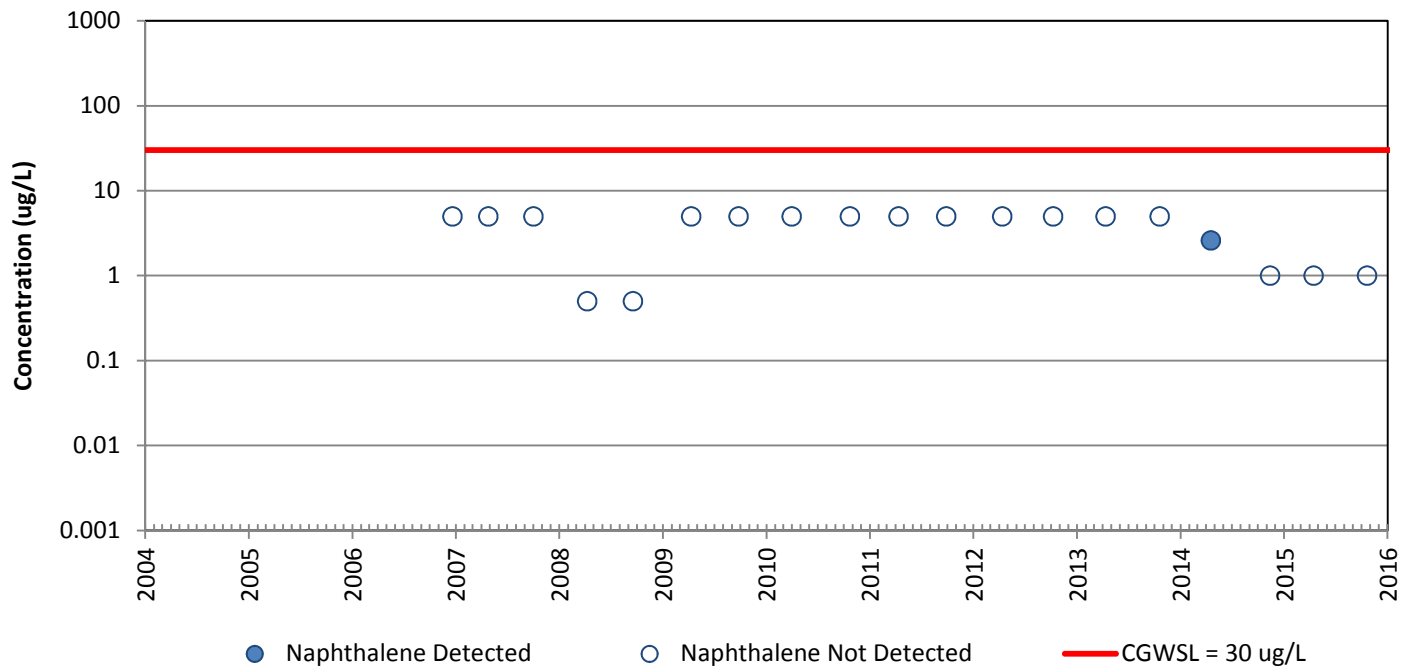


# NCL-44

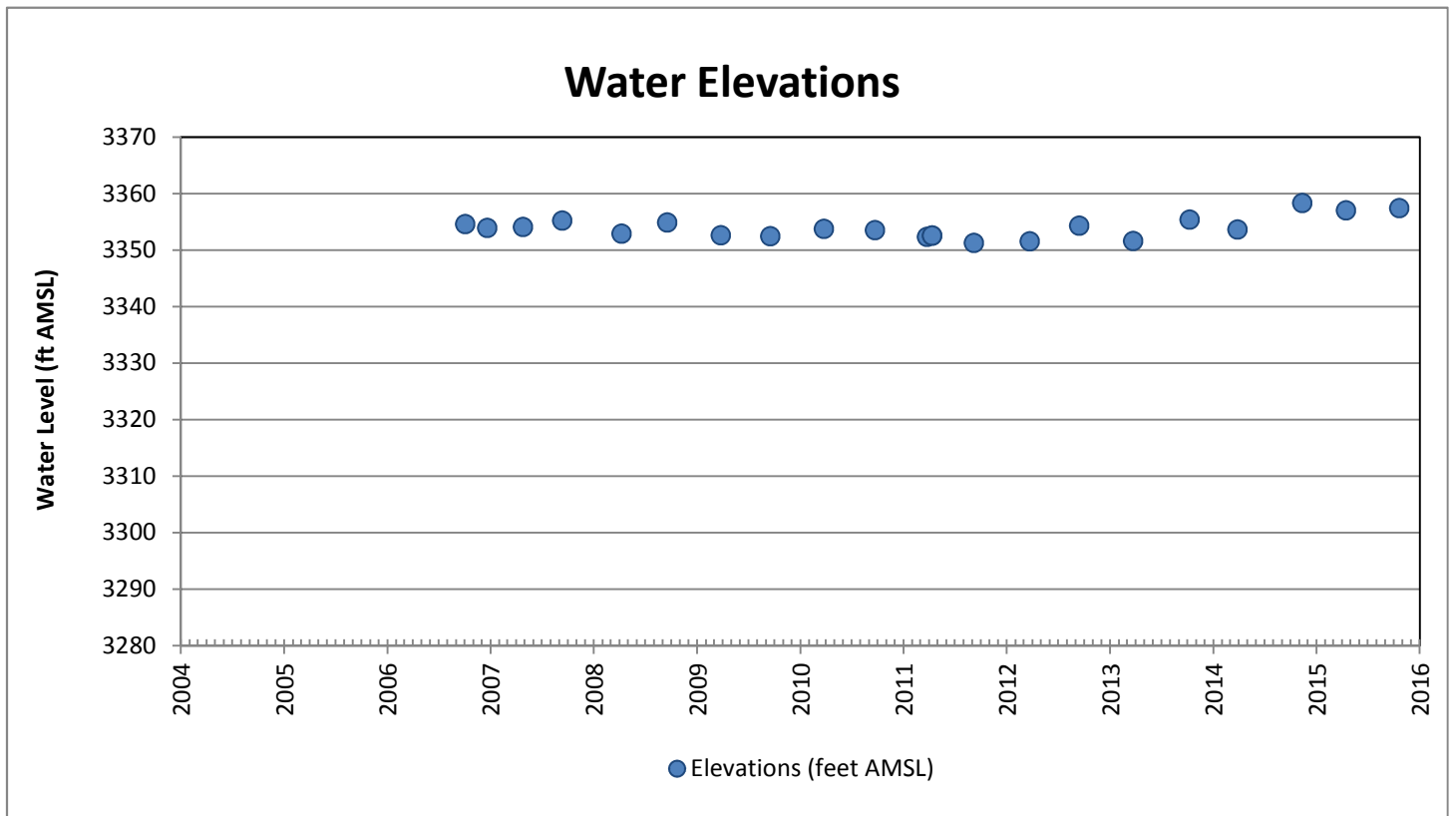
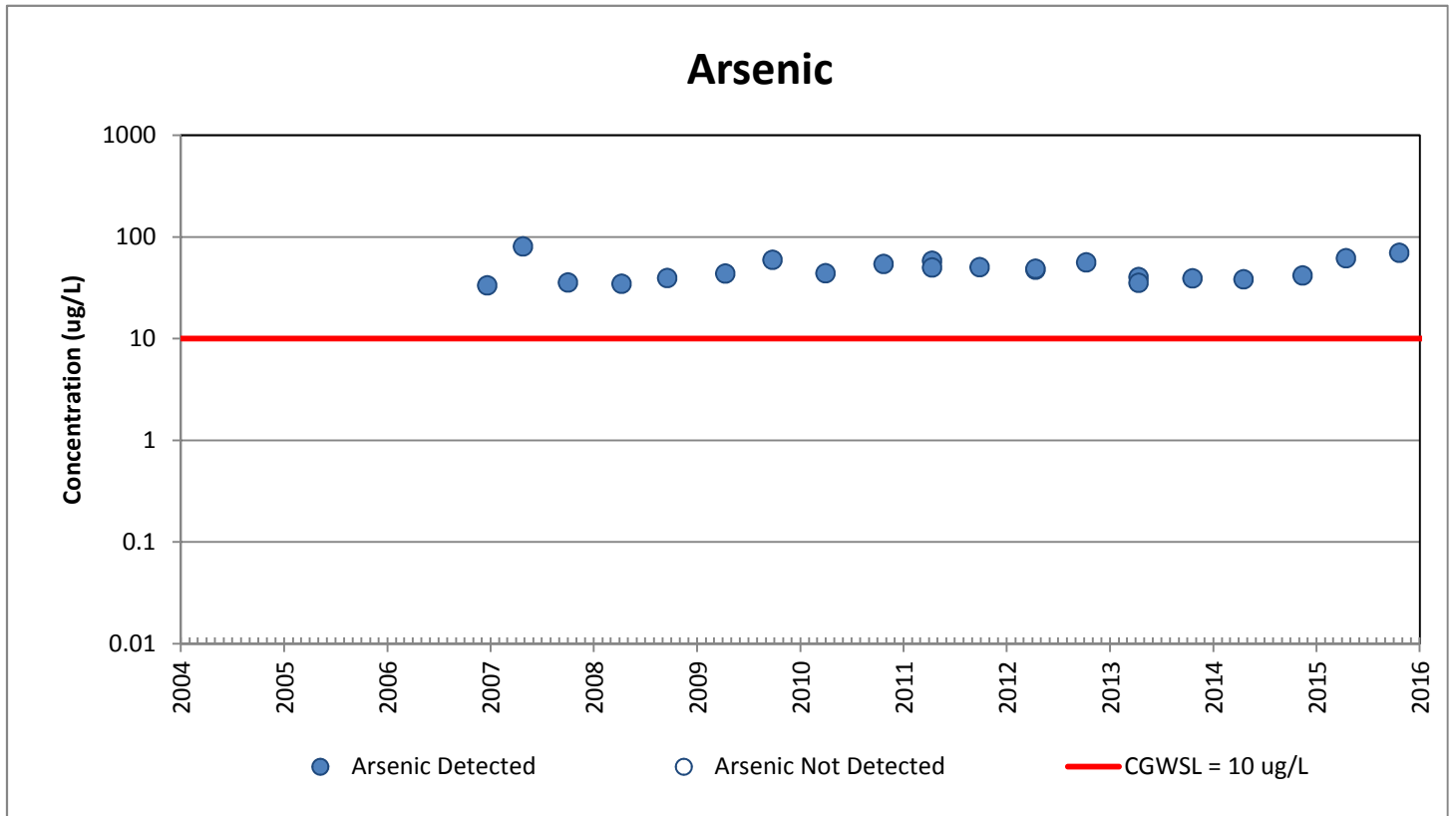
## MTBE



## Naphthalene

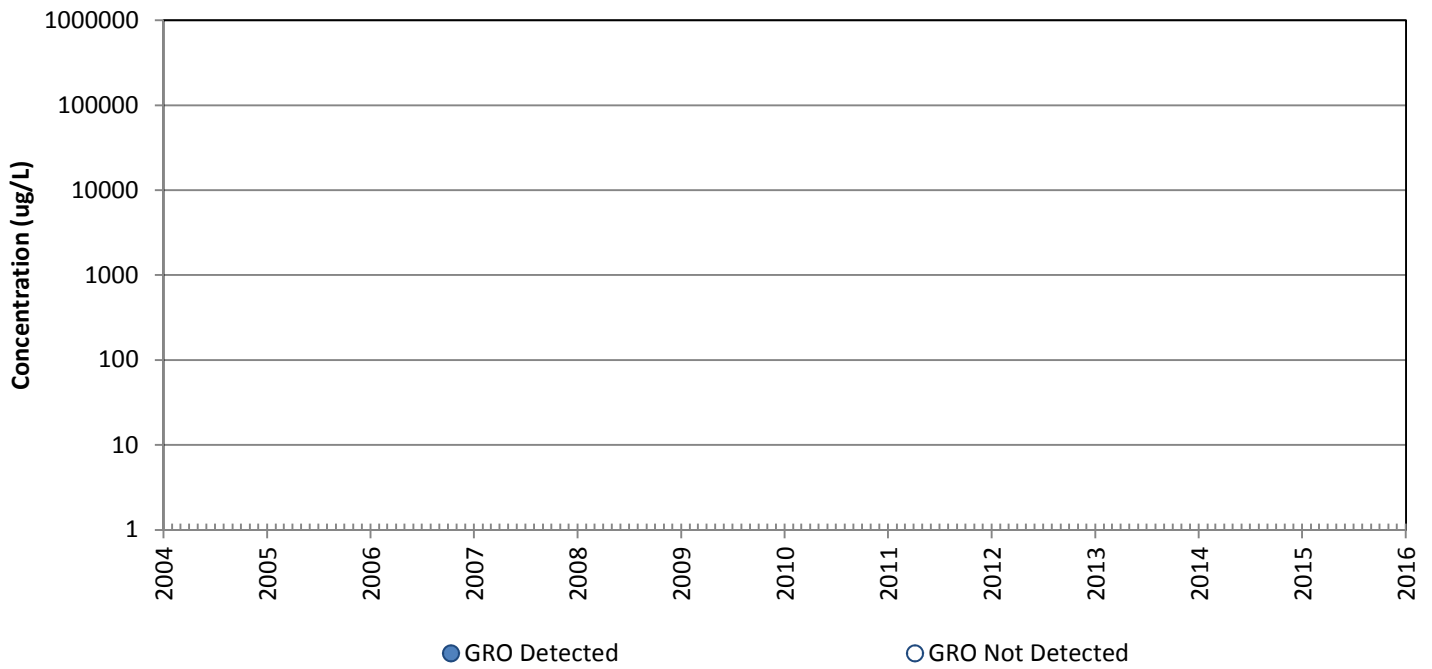


# NCL-44

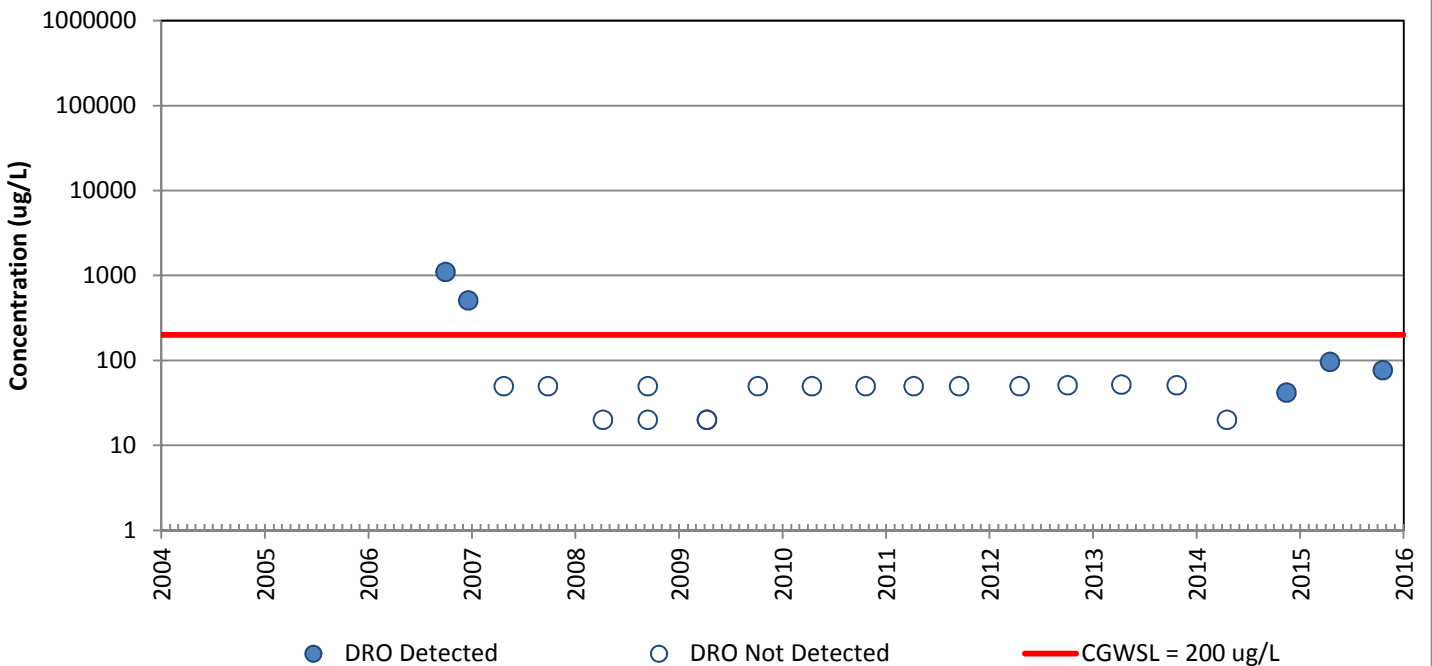


# NCL-49

## GRO

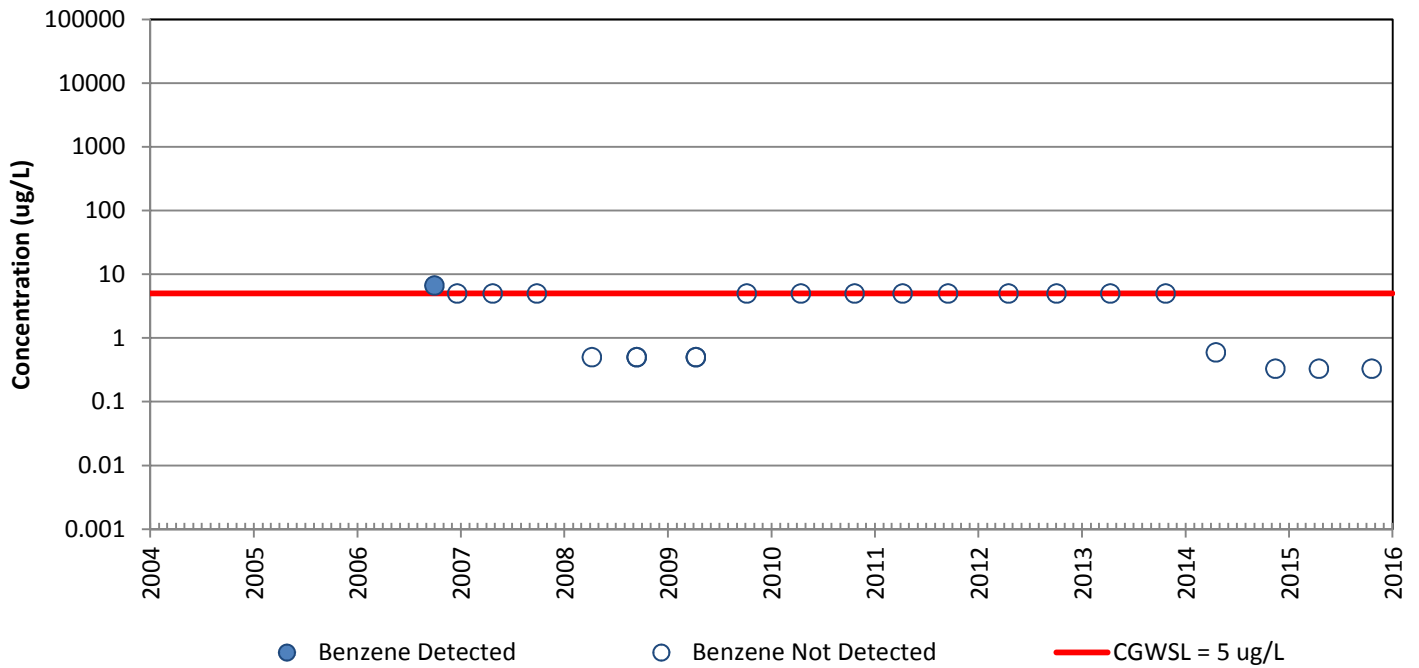


## DRO

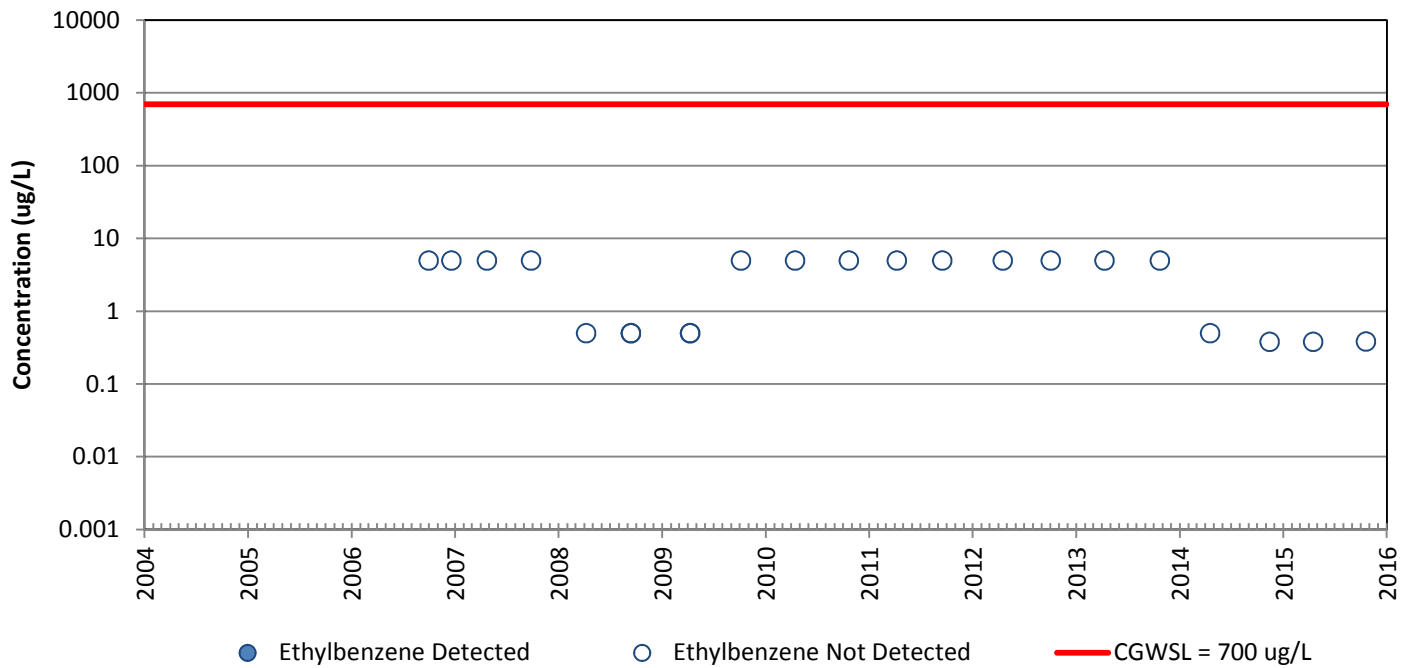


# NCL-49

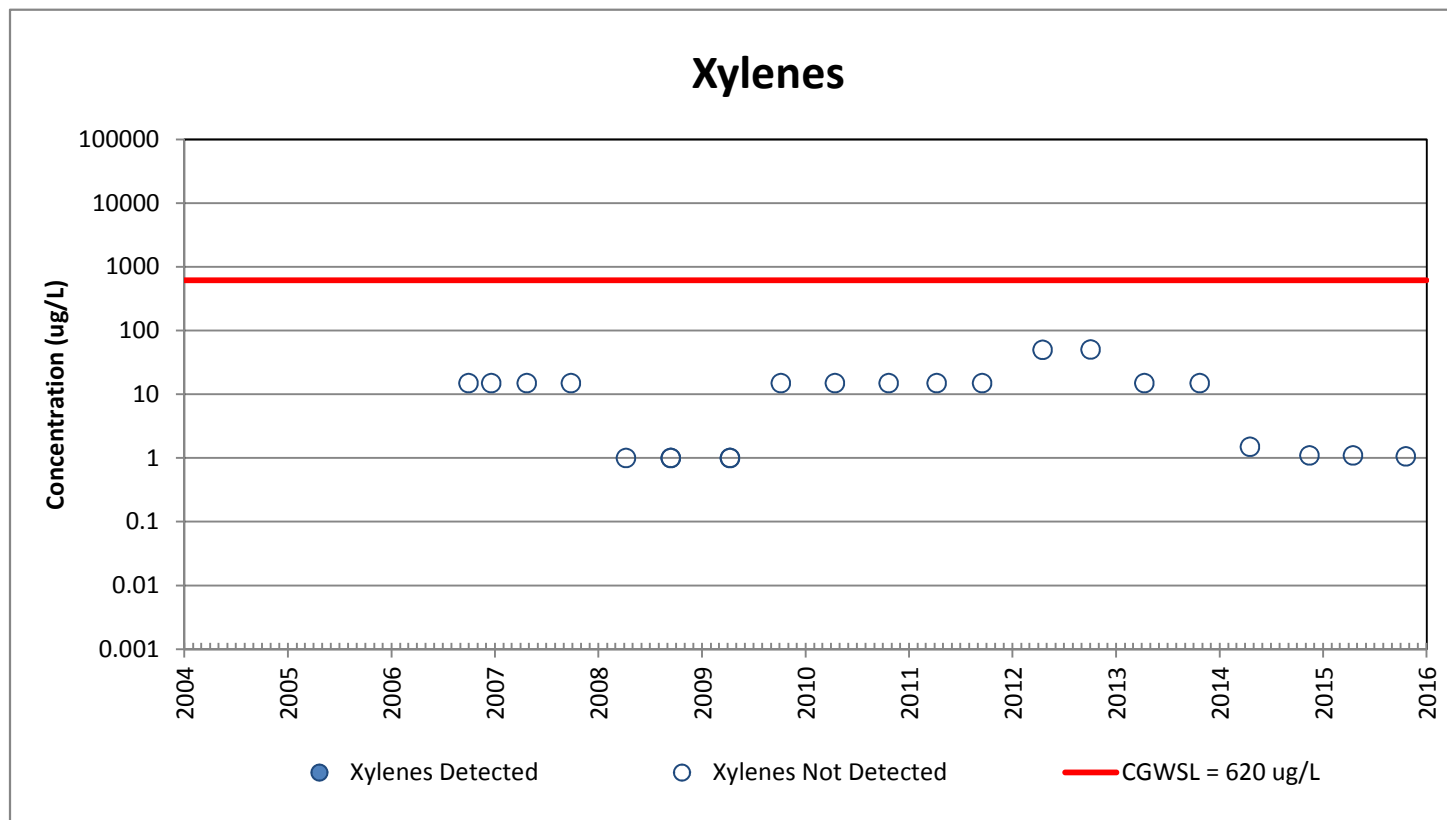
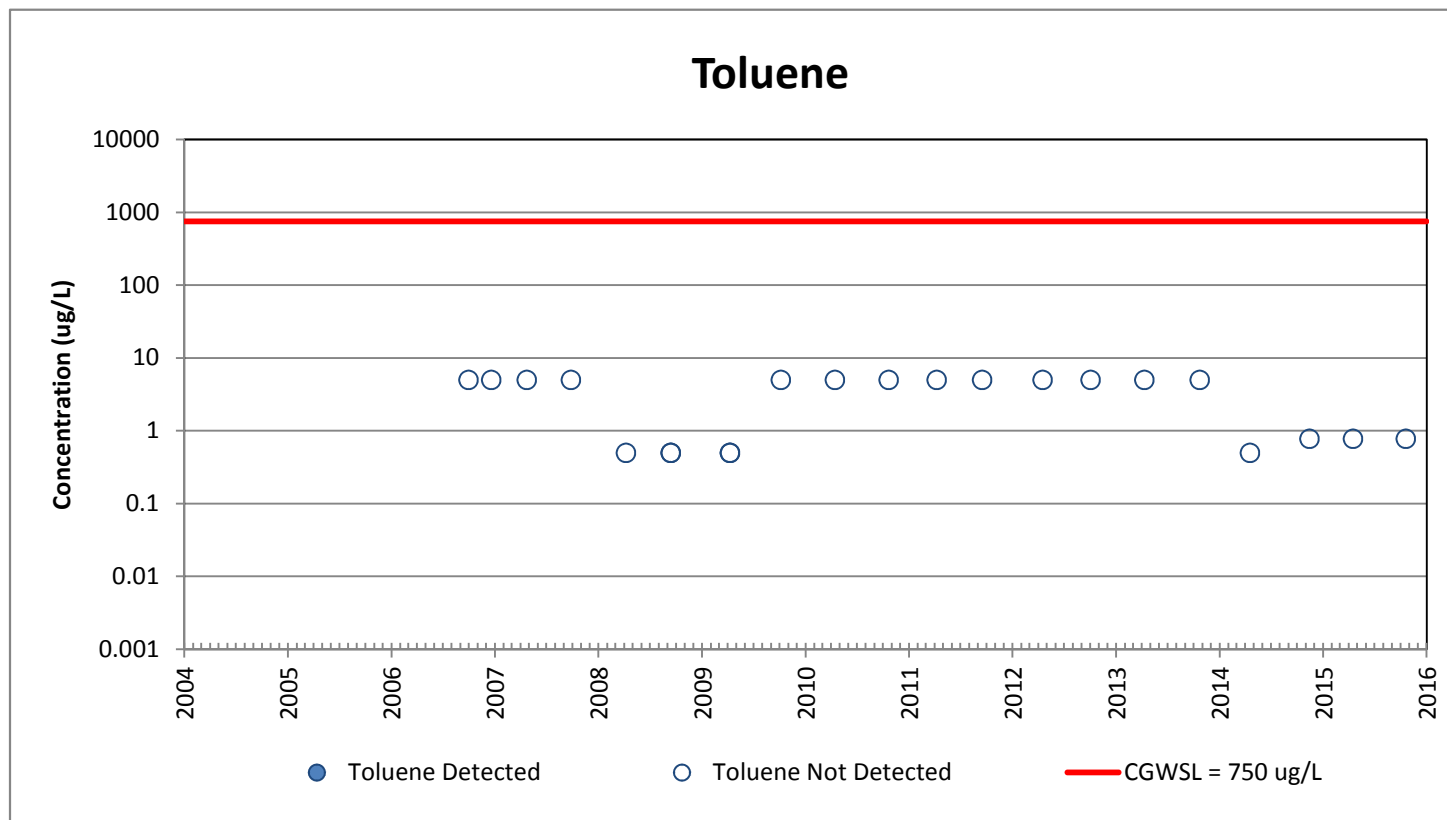
## Benzene



## Ethylbenzene

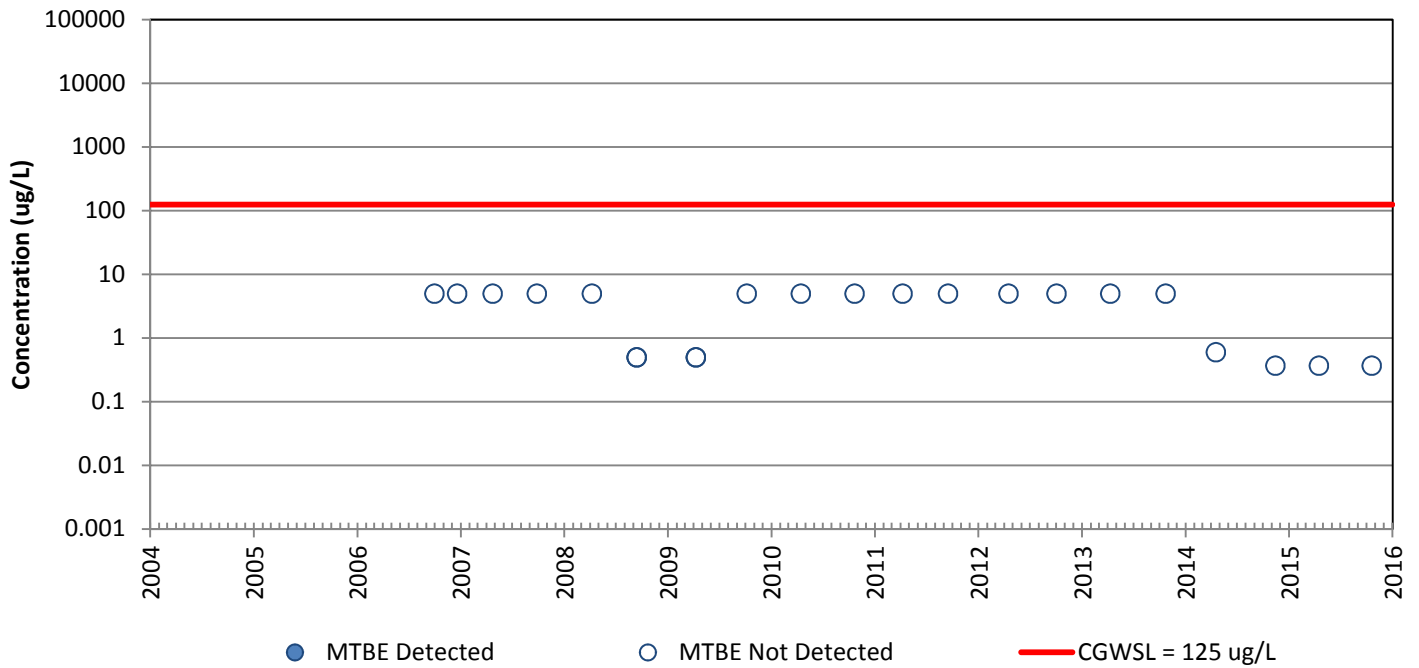


# NCL-49

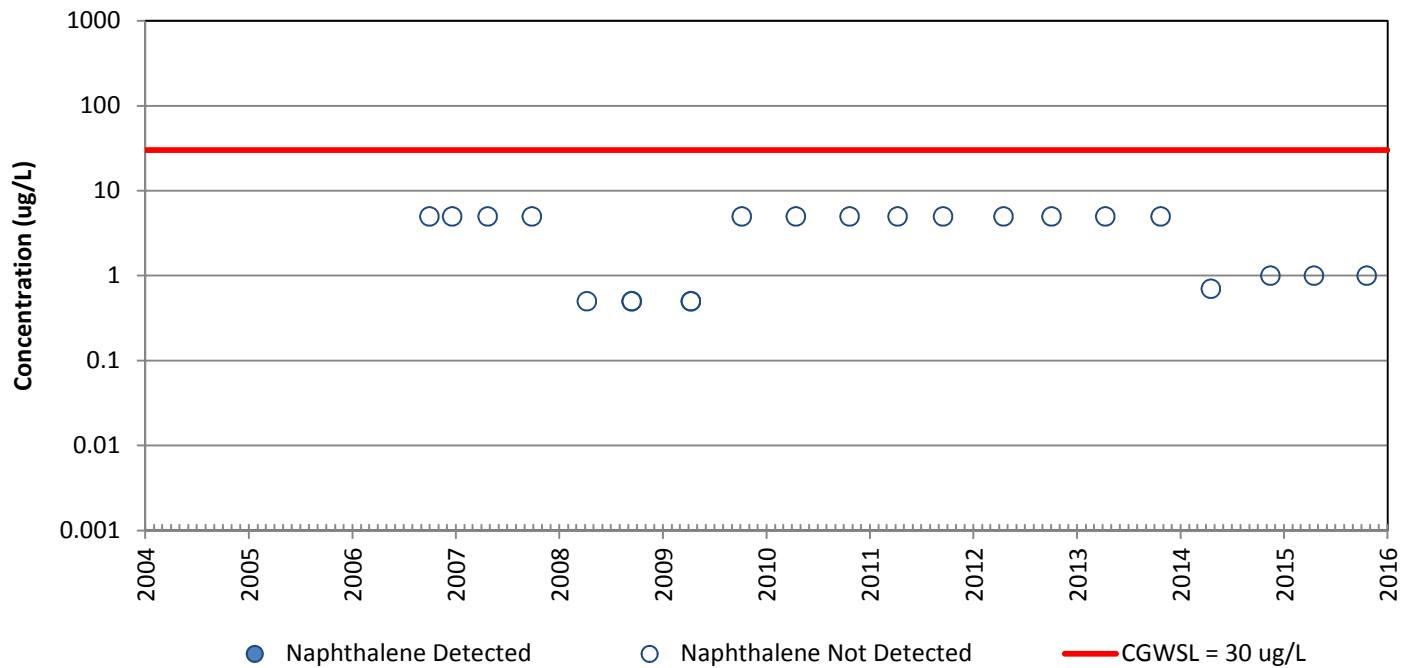


# NCL-49

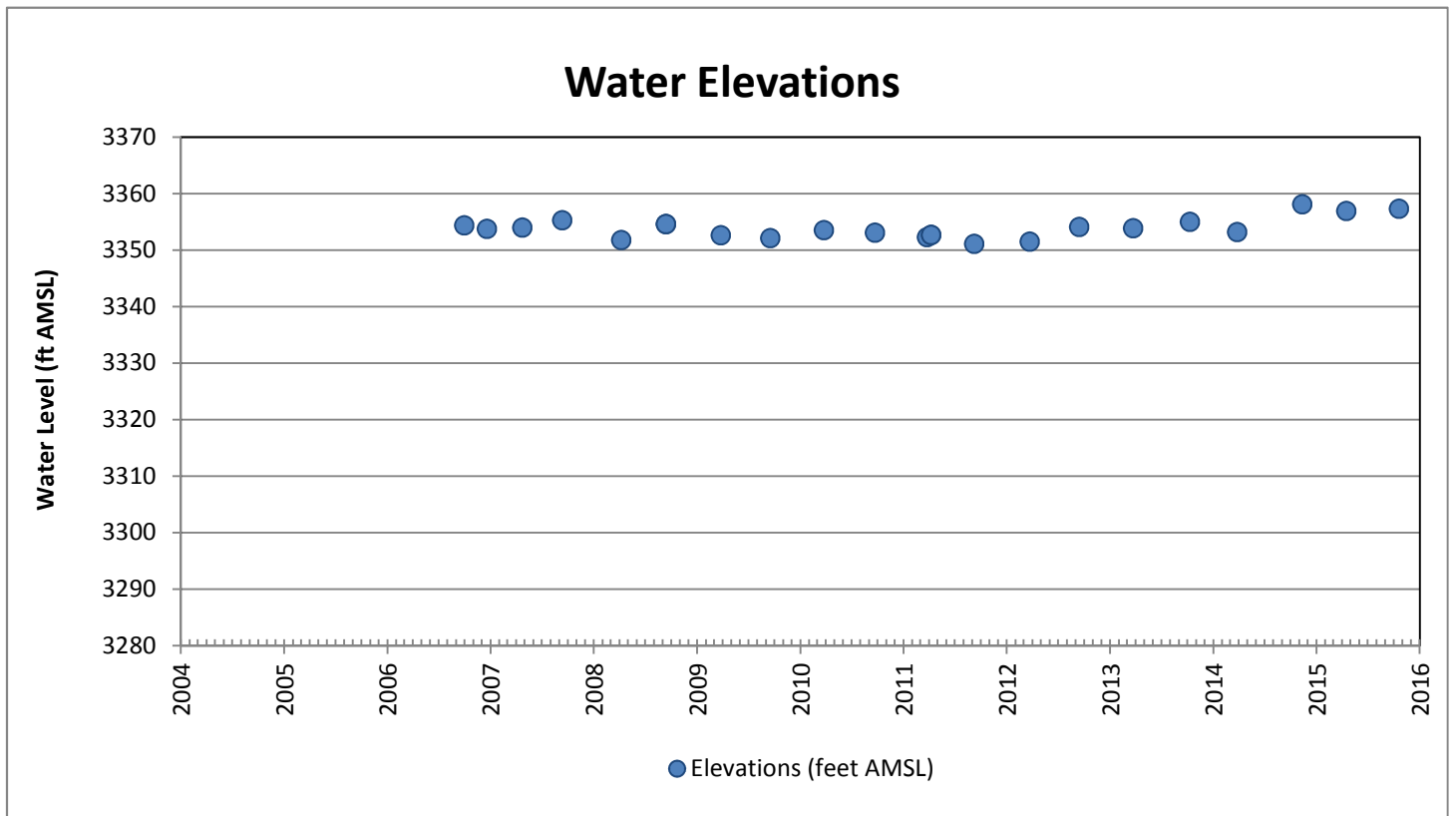
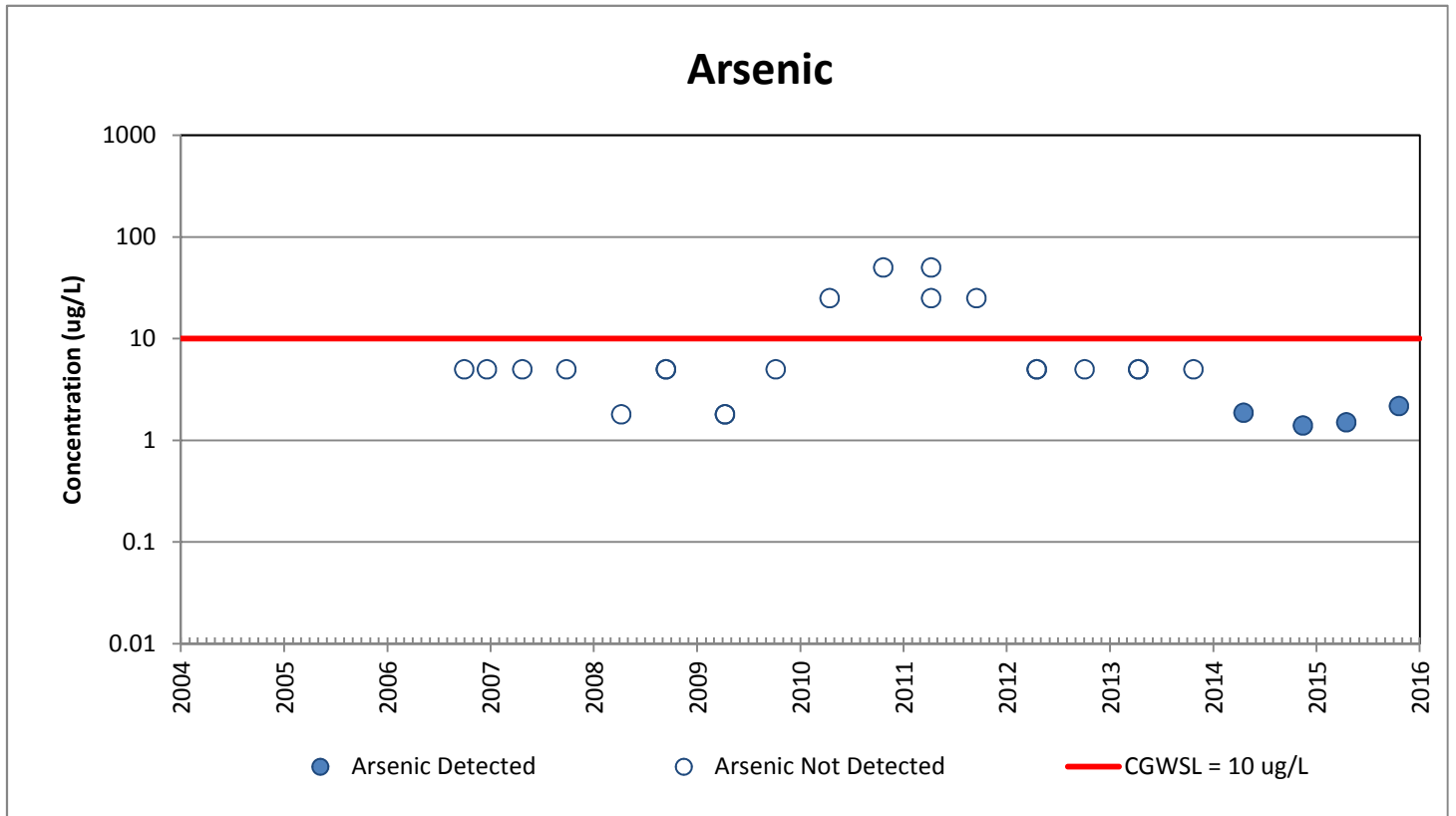
## MTBE



## Naphthalene

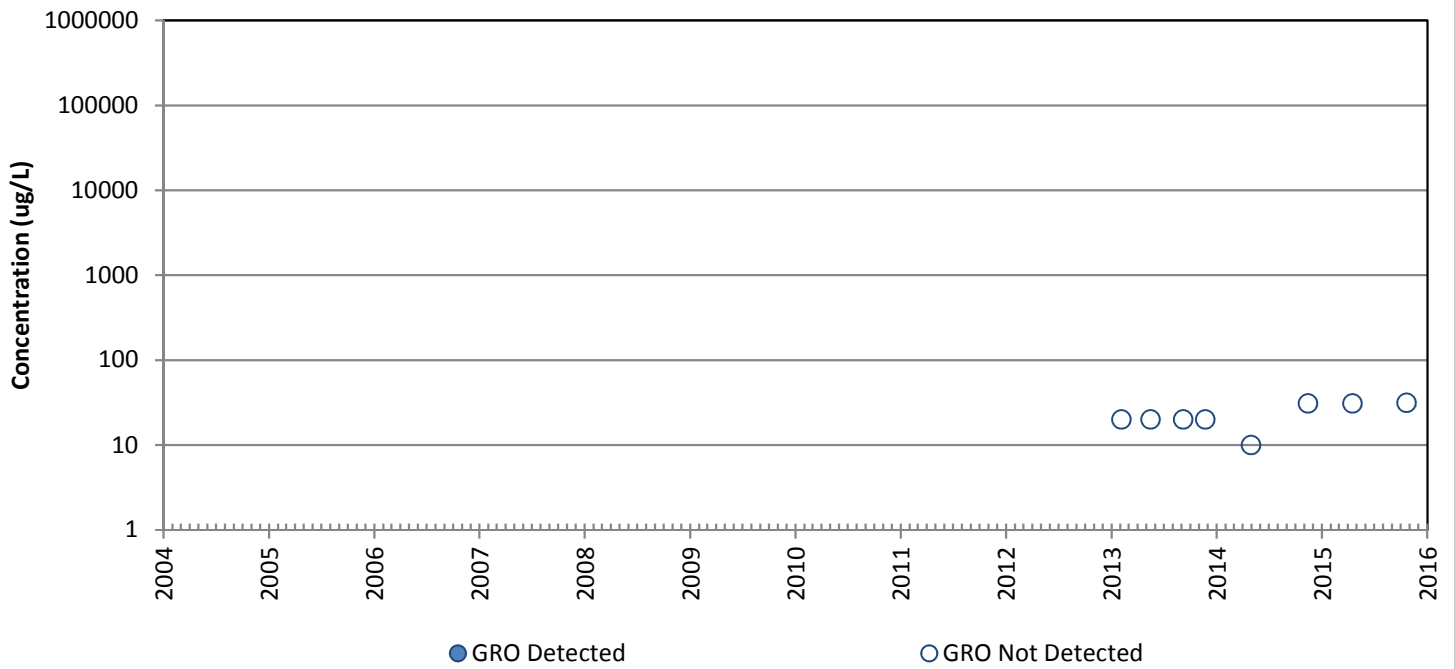


# NCL-49

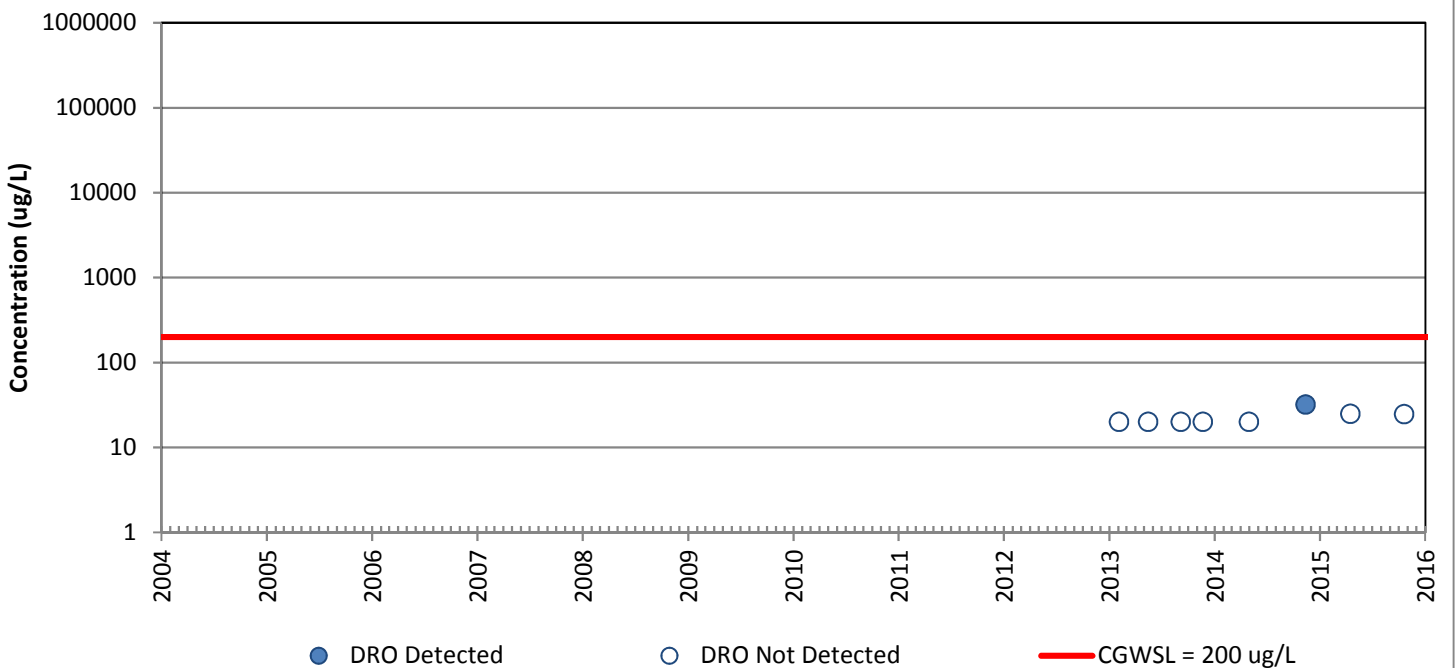


# MW-114

## GRO



## DRO

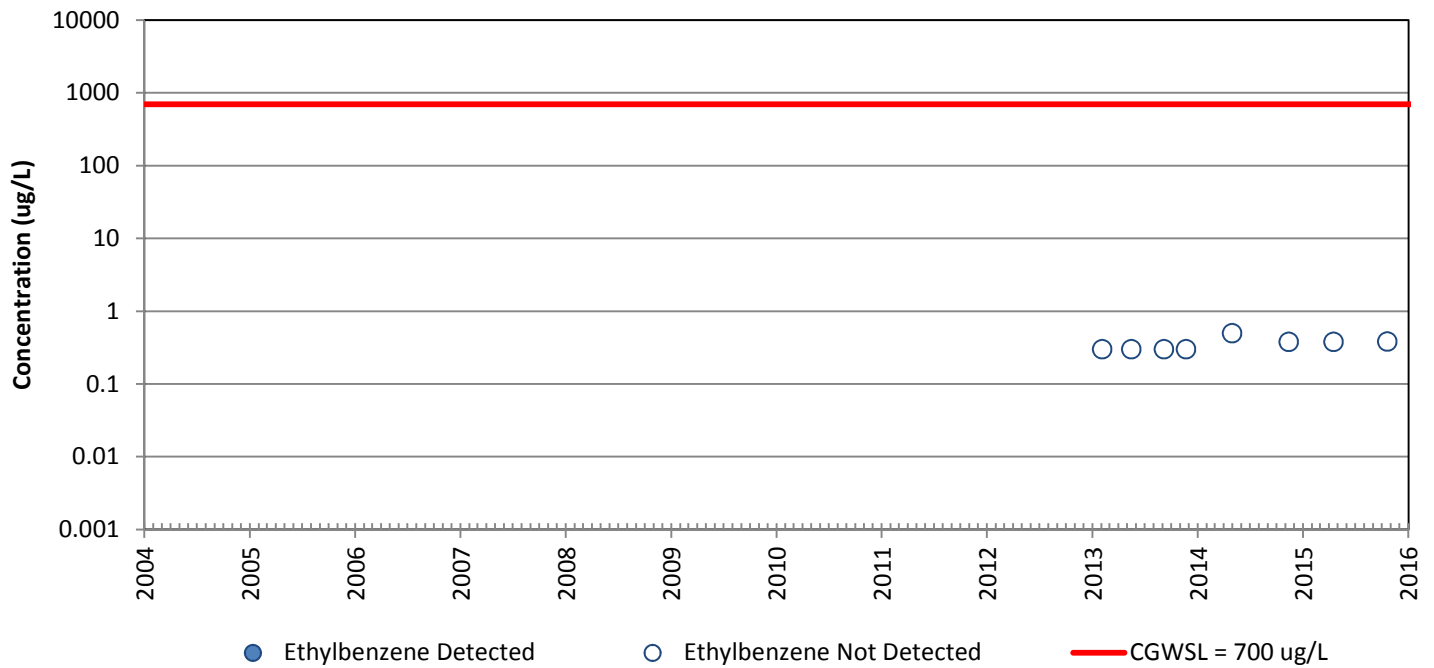


# MW-114

## Benzene

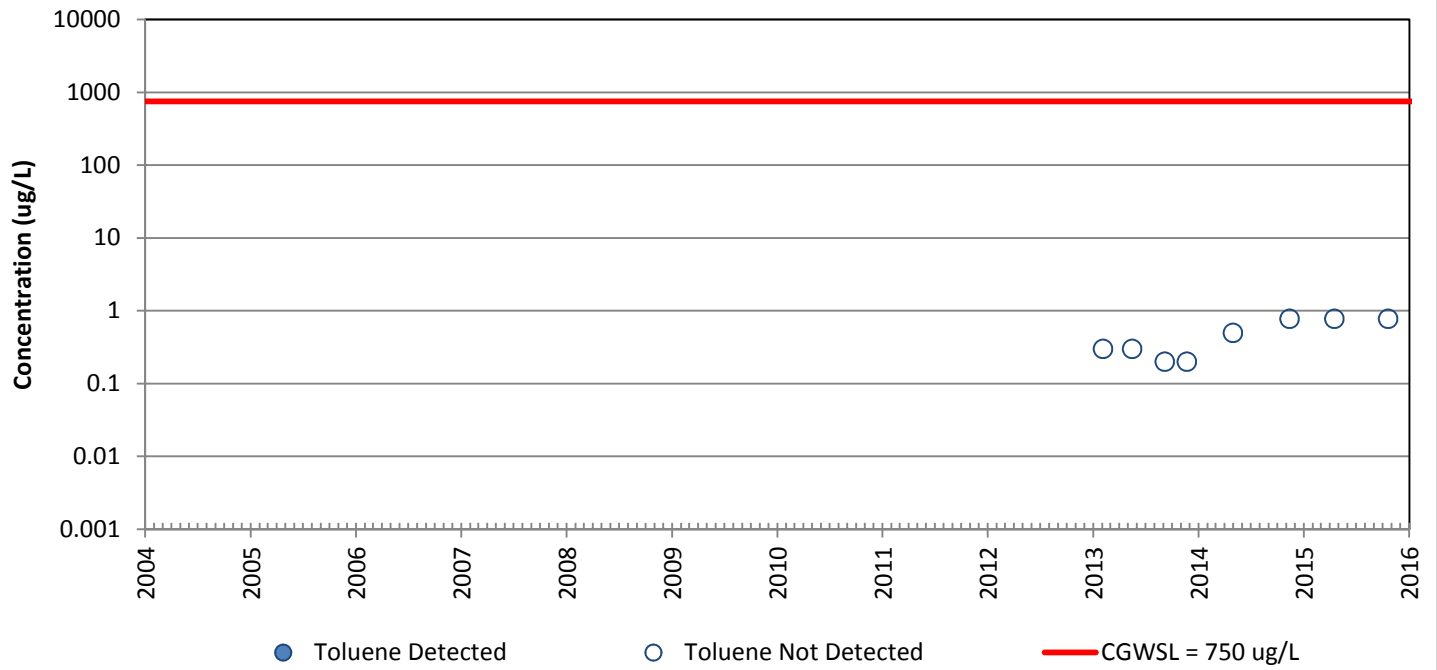


## Ethylbenzene

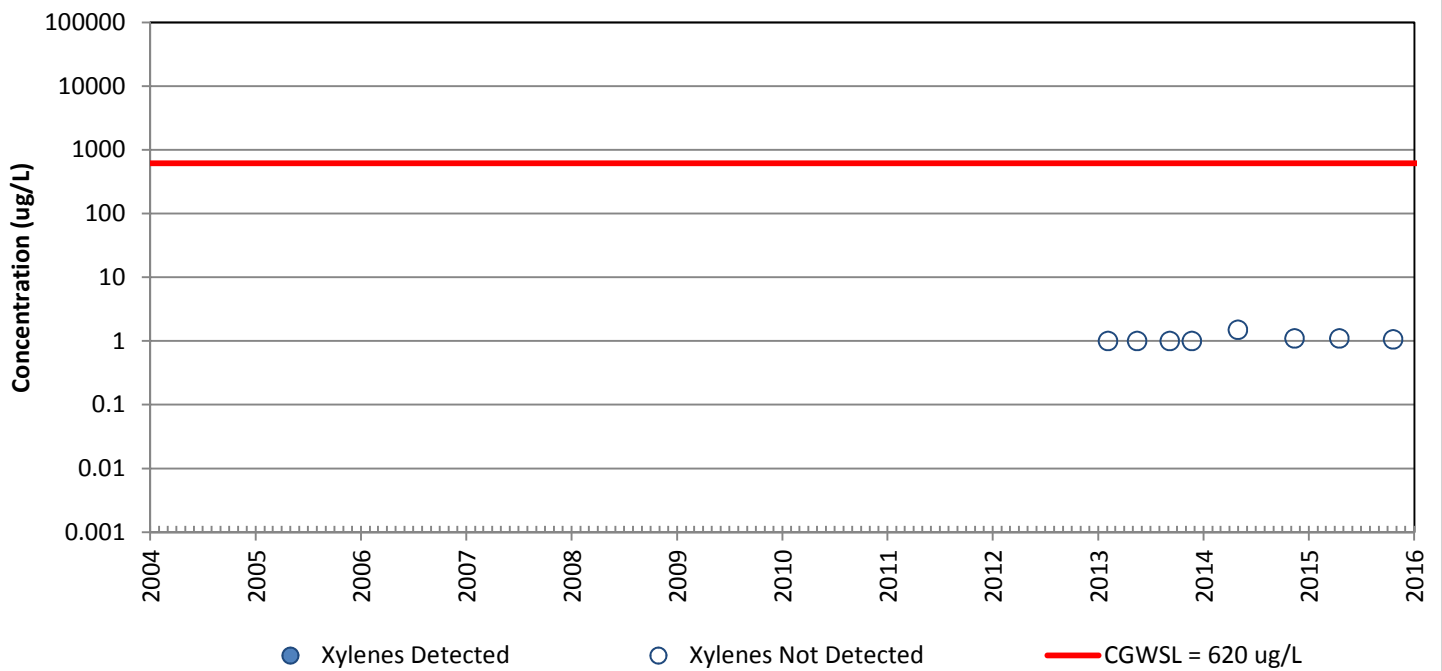


# MW-114

## Toluene

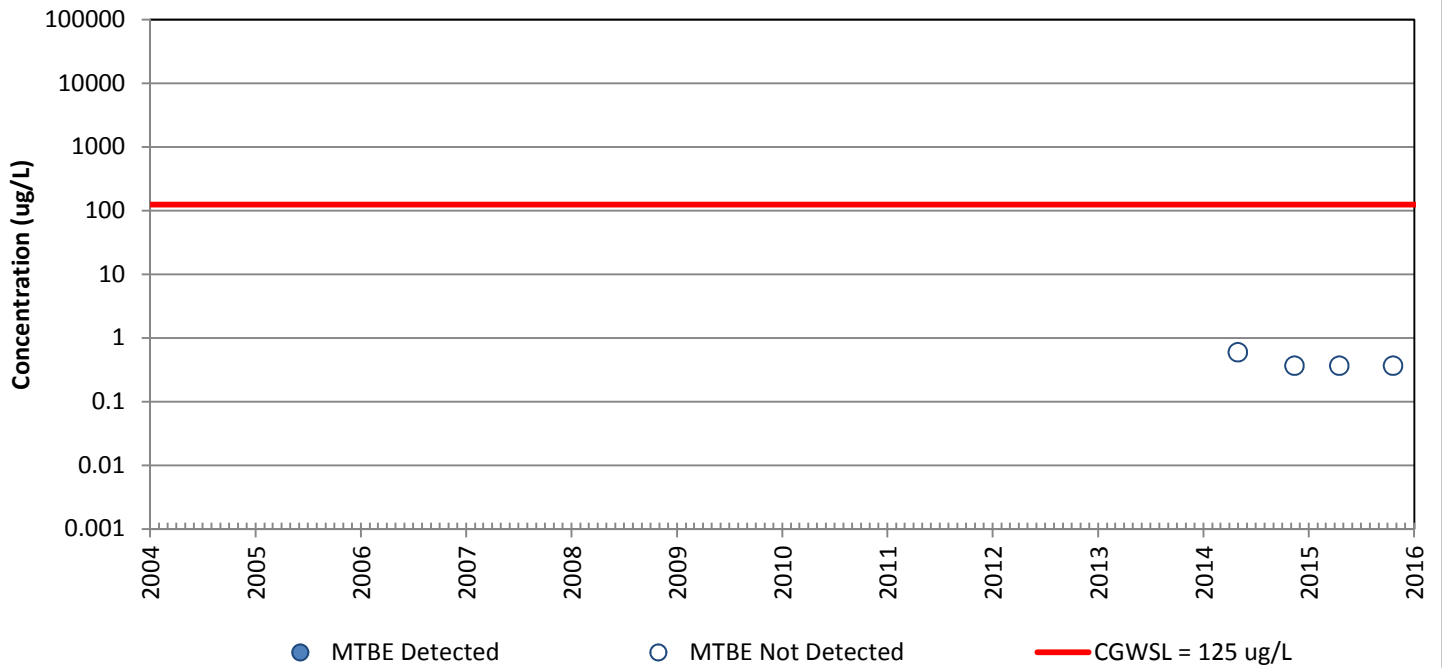


## Xylenes

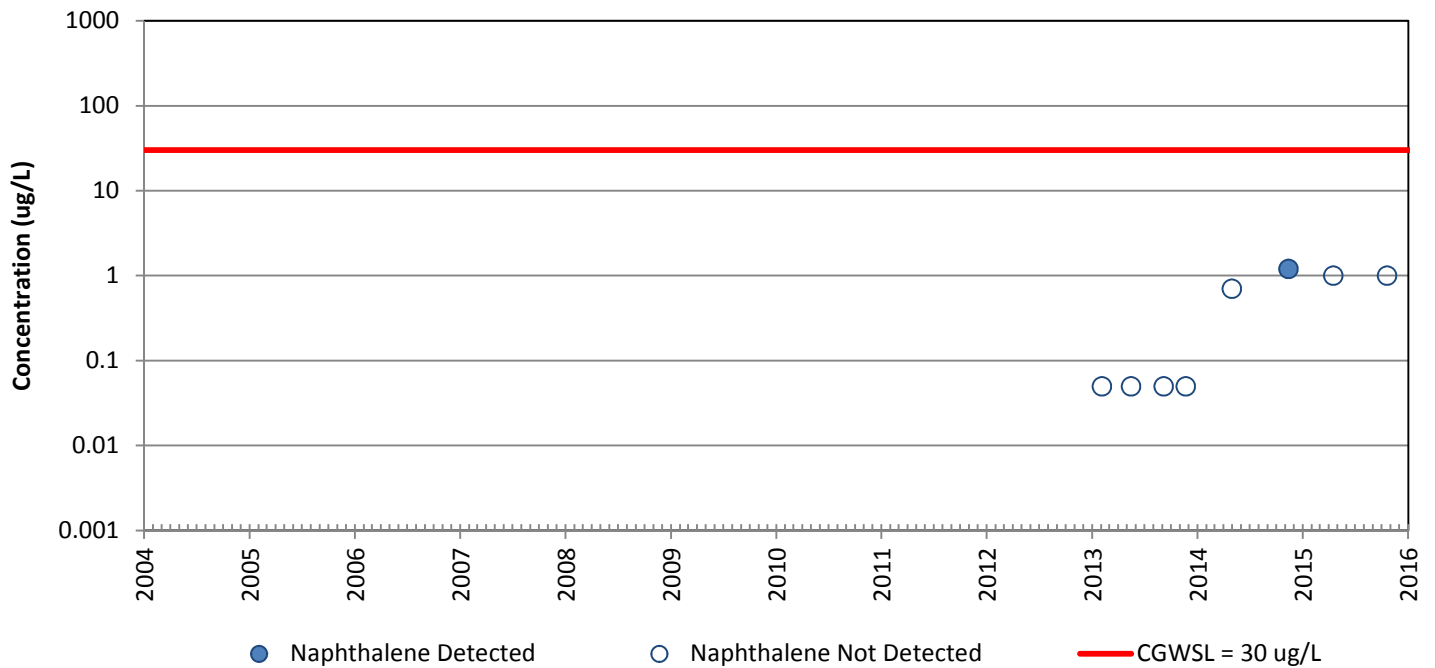


# MW-114

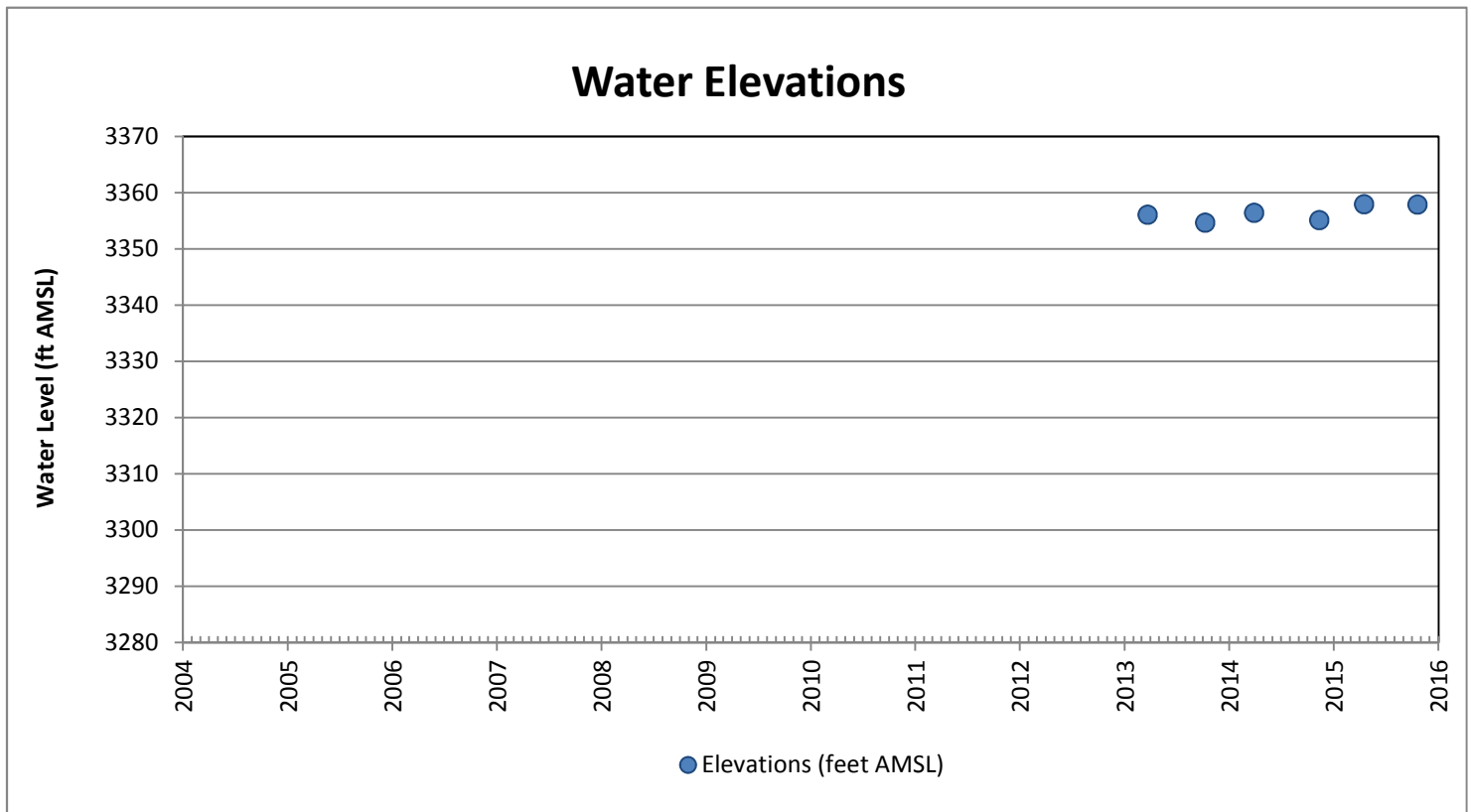
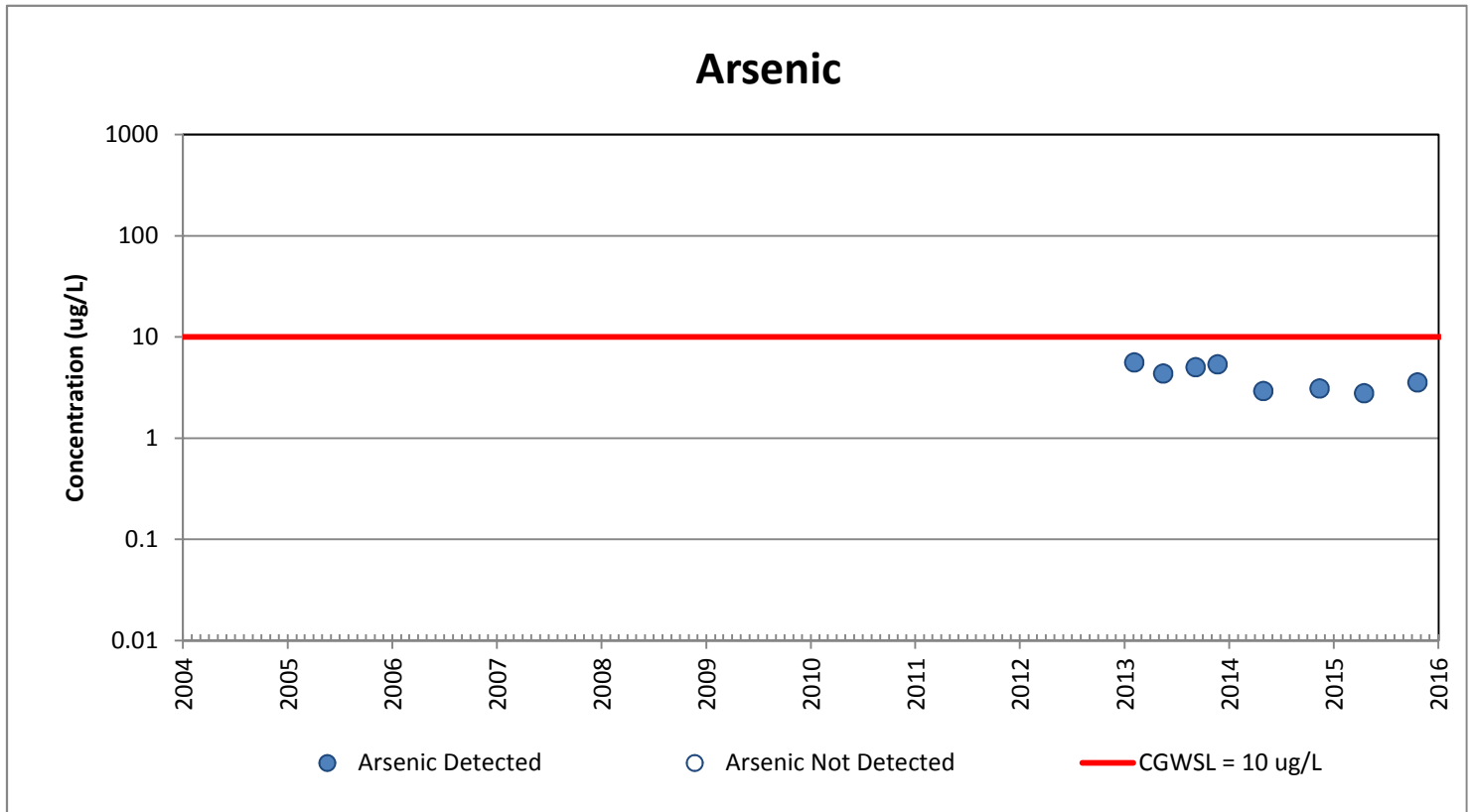
## MTBE



## Naphthalene

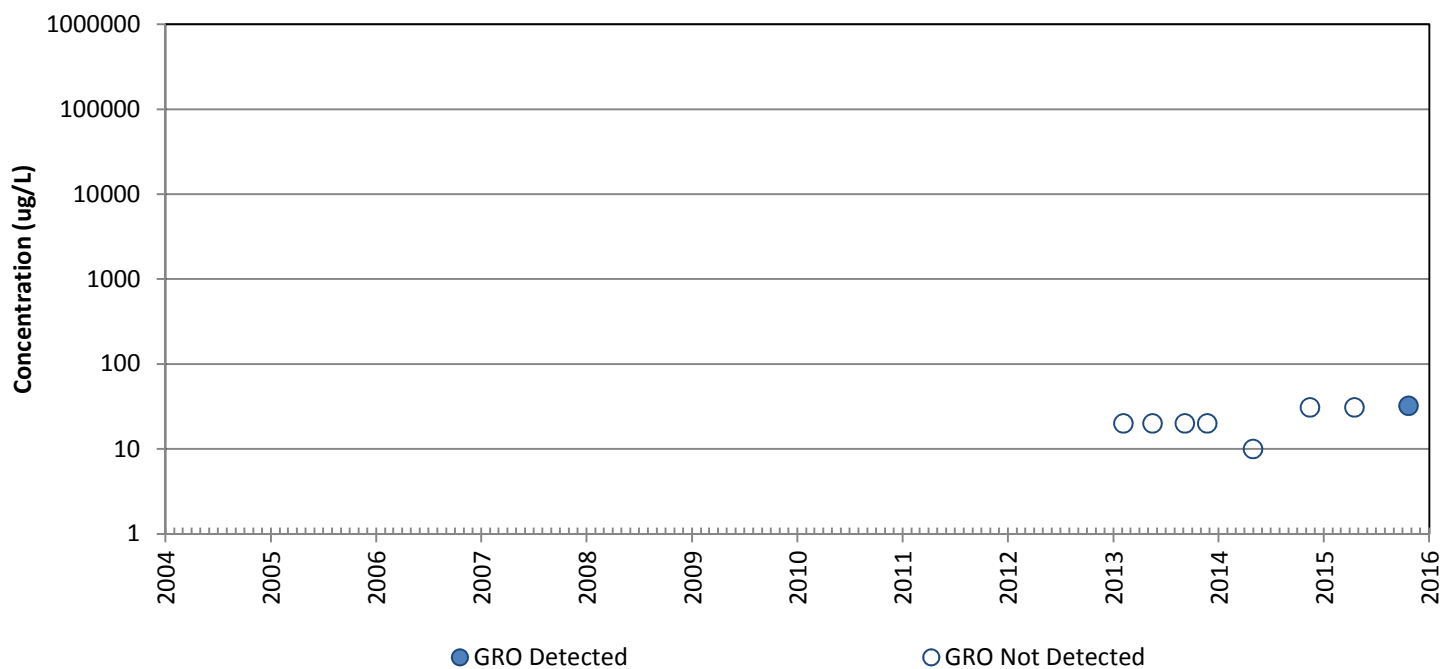


# MW-114

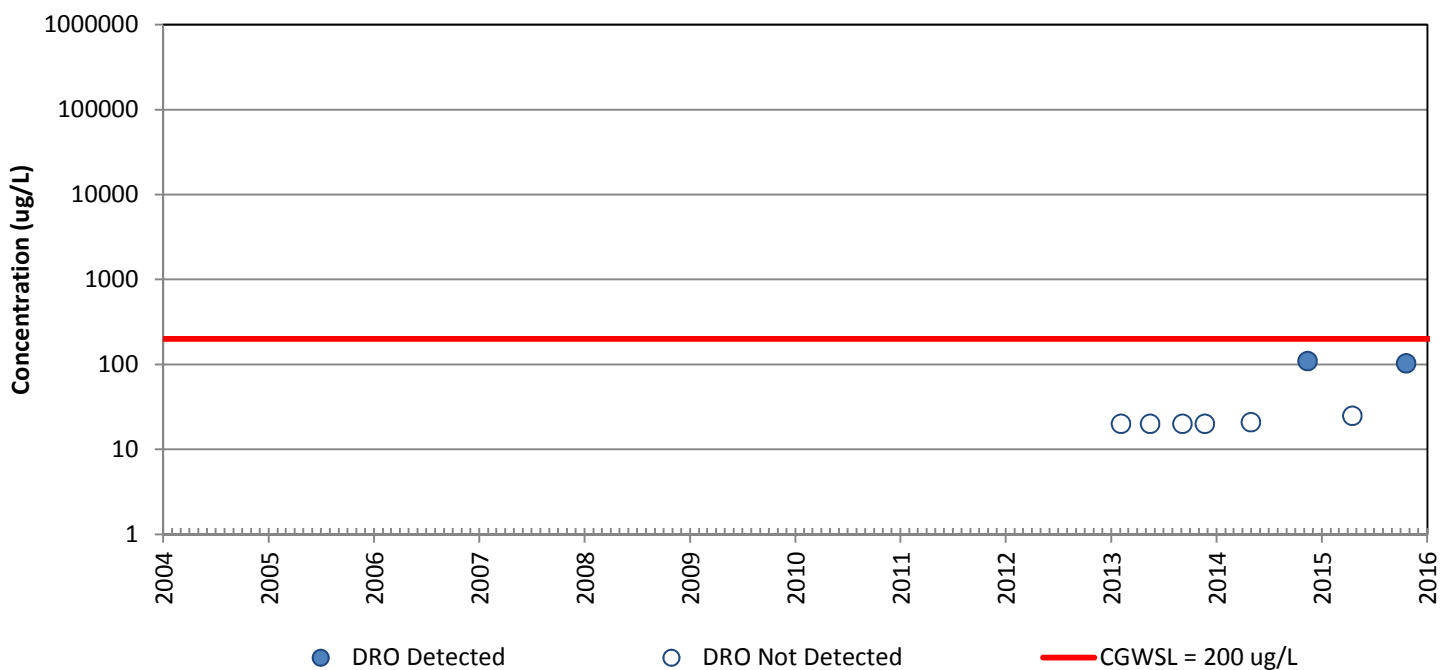


# MW-115

## GRO



## DRO

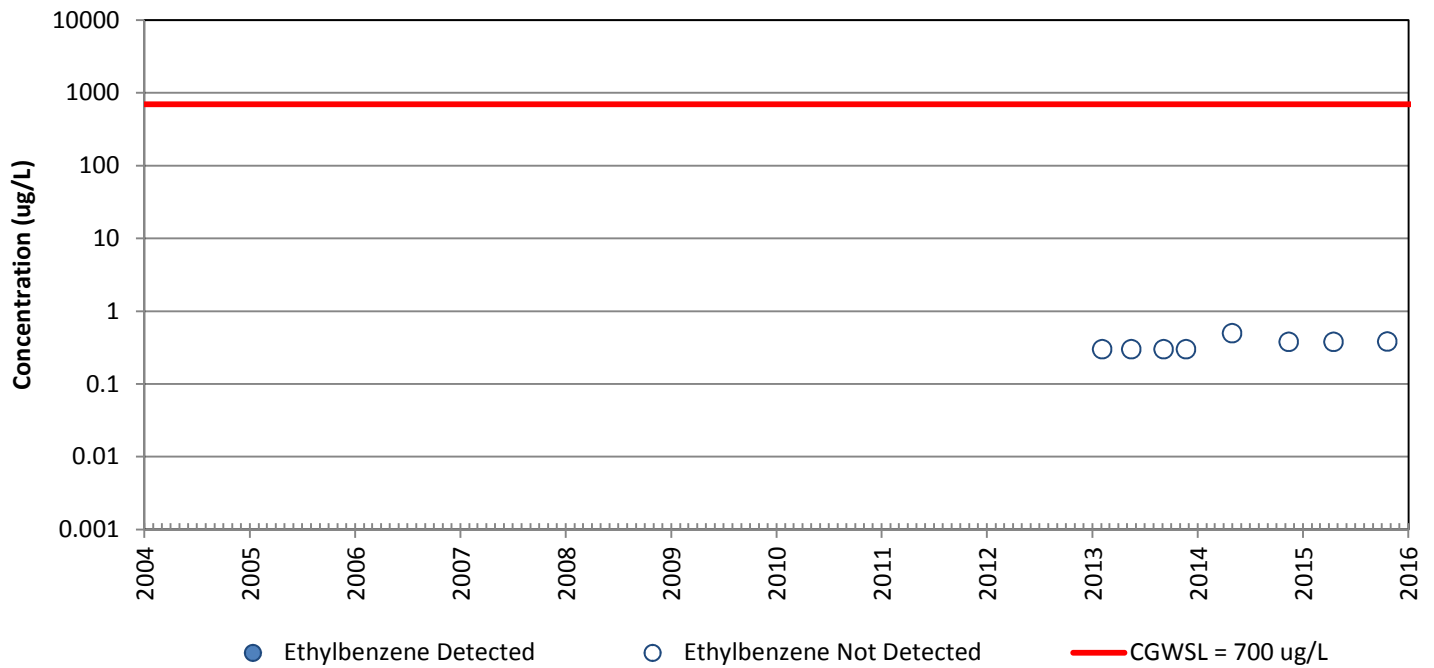


# MW-115

## Benzene

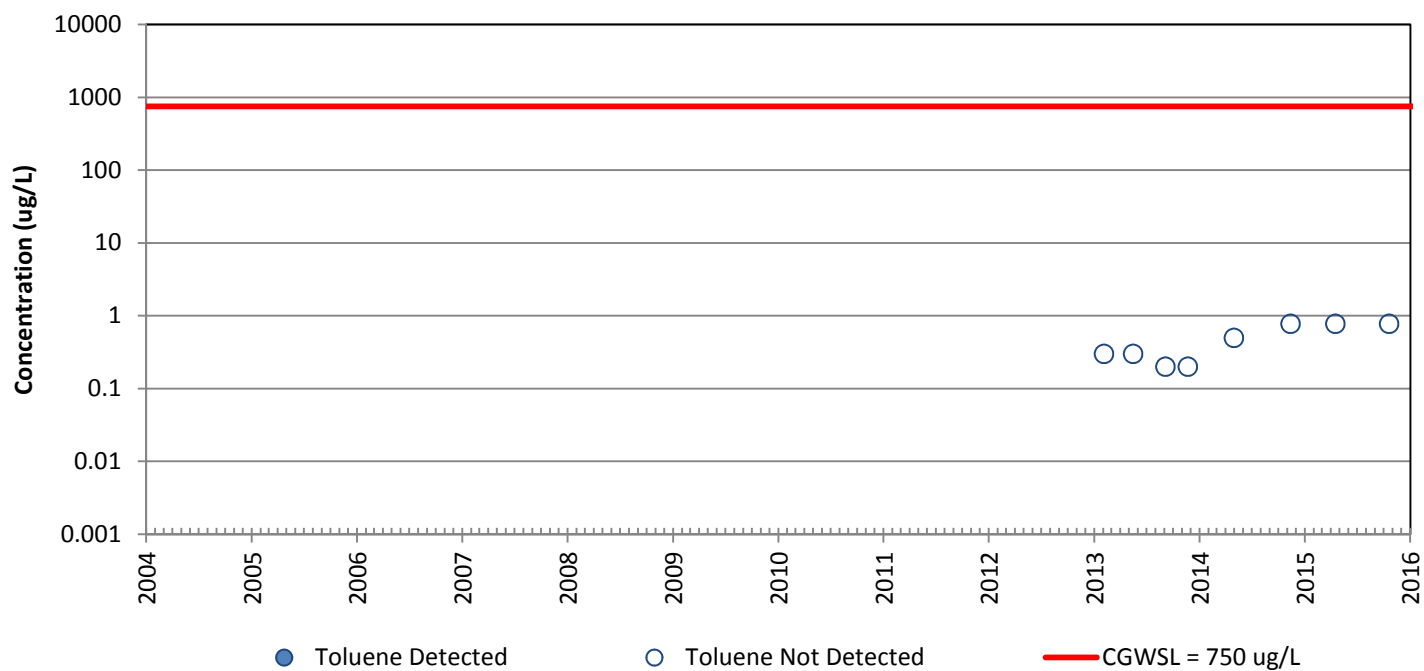


## Ethylbenzene

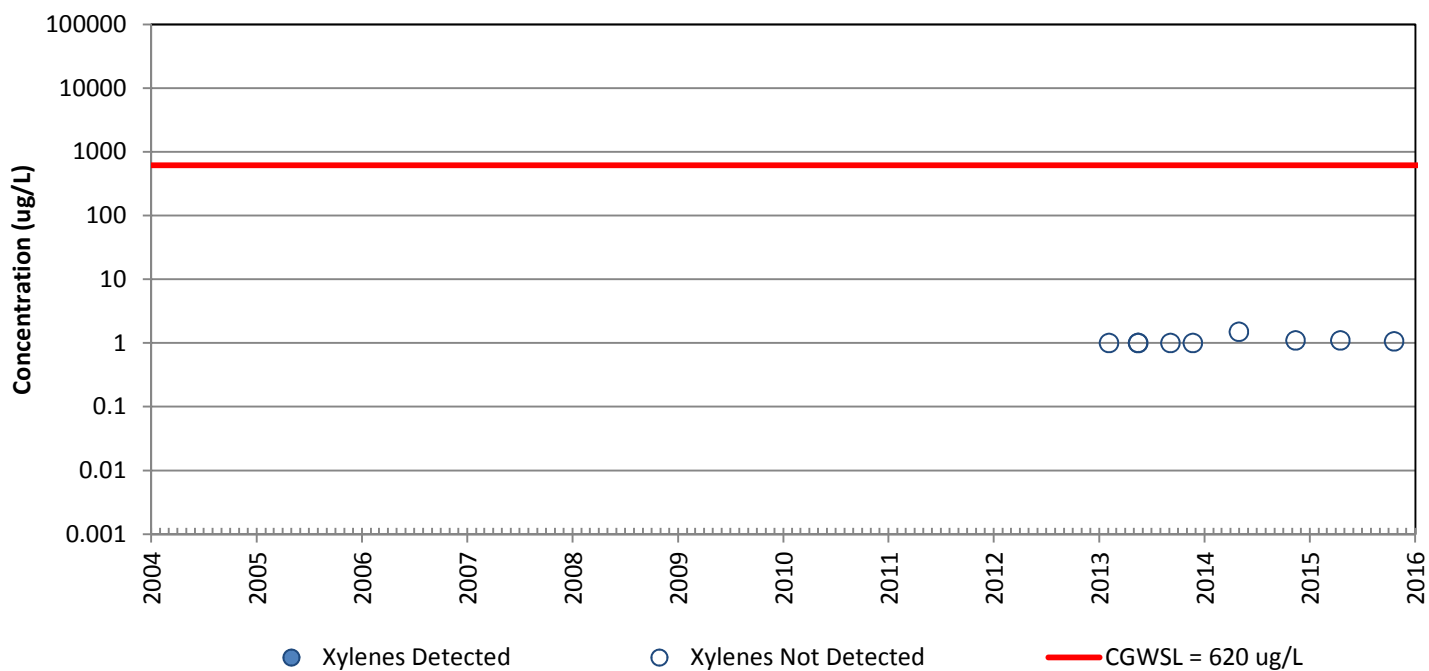


# MW-115

## Toluene

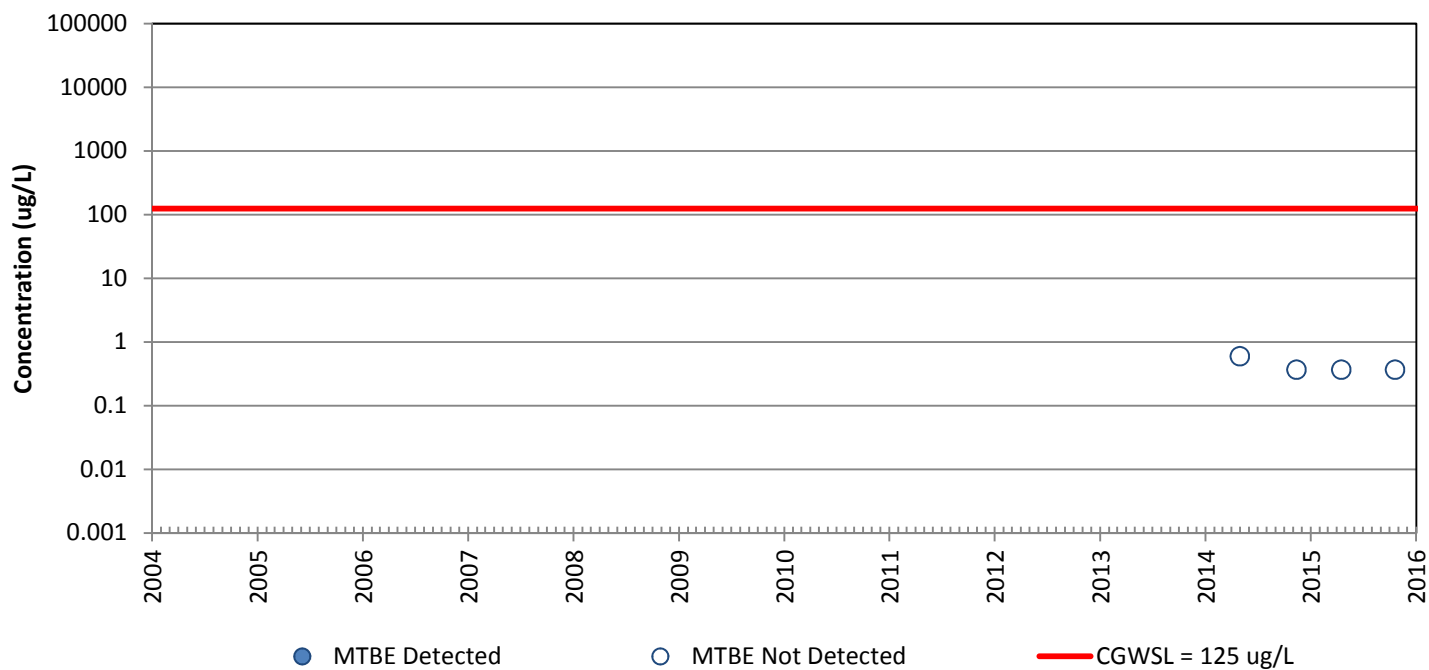


## Xylenes

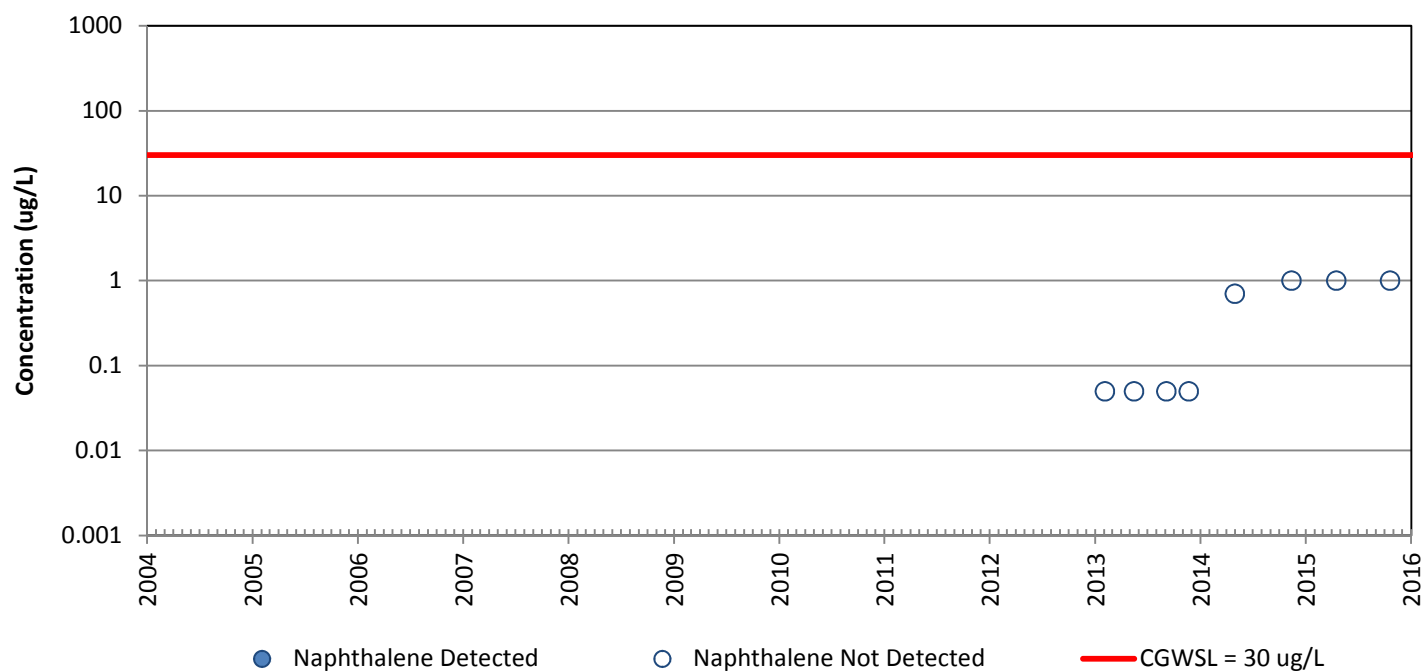


# MW-115

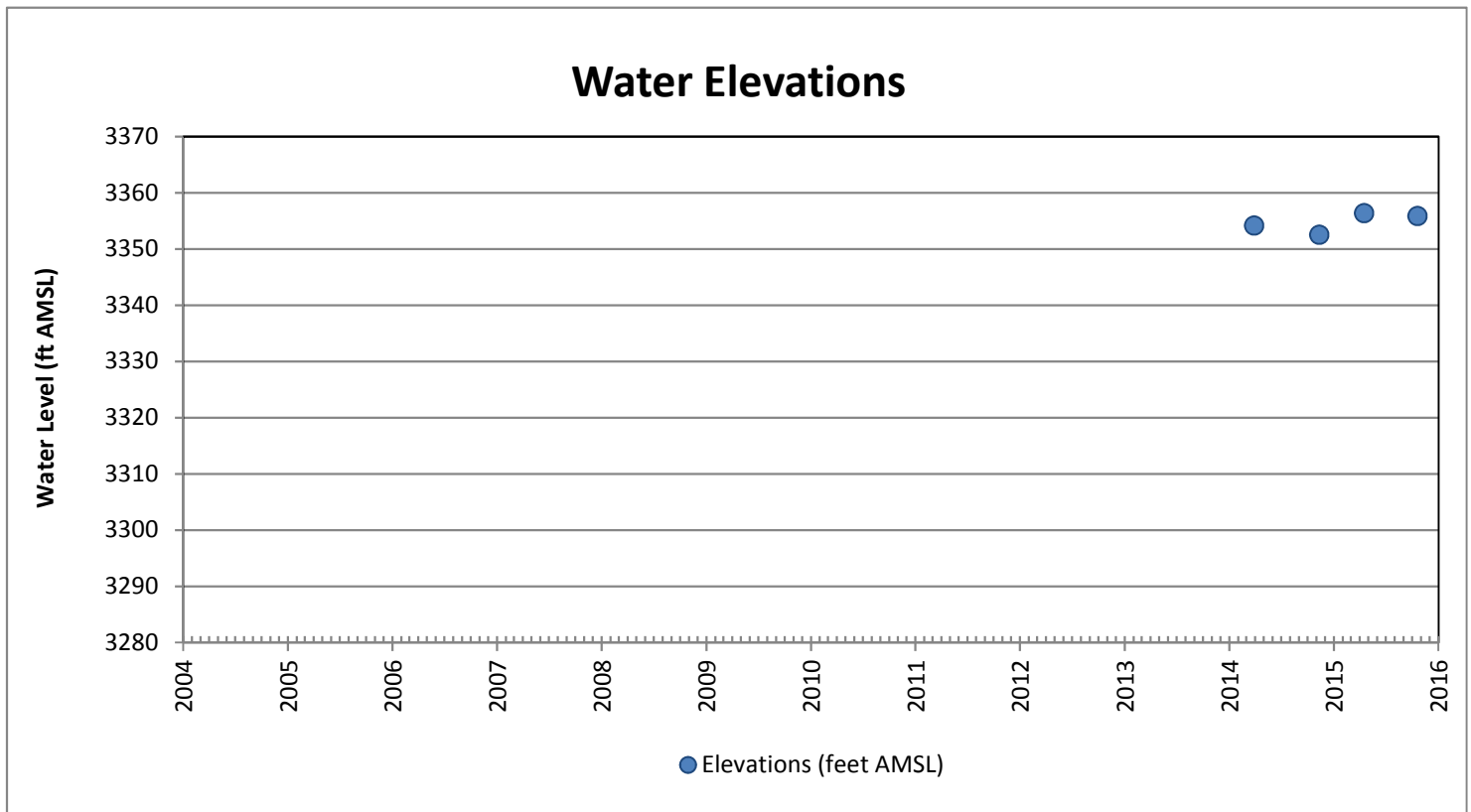
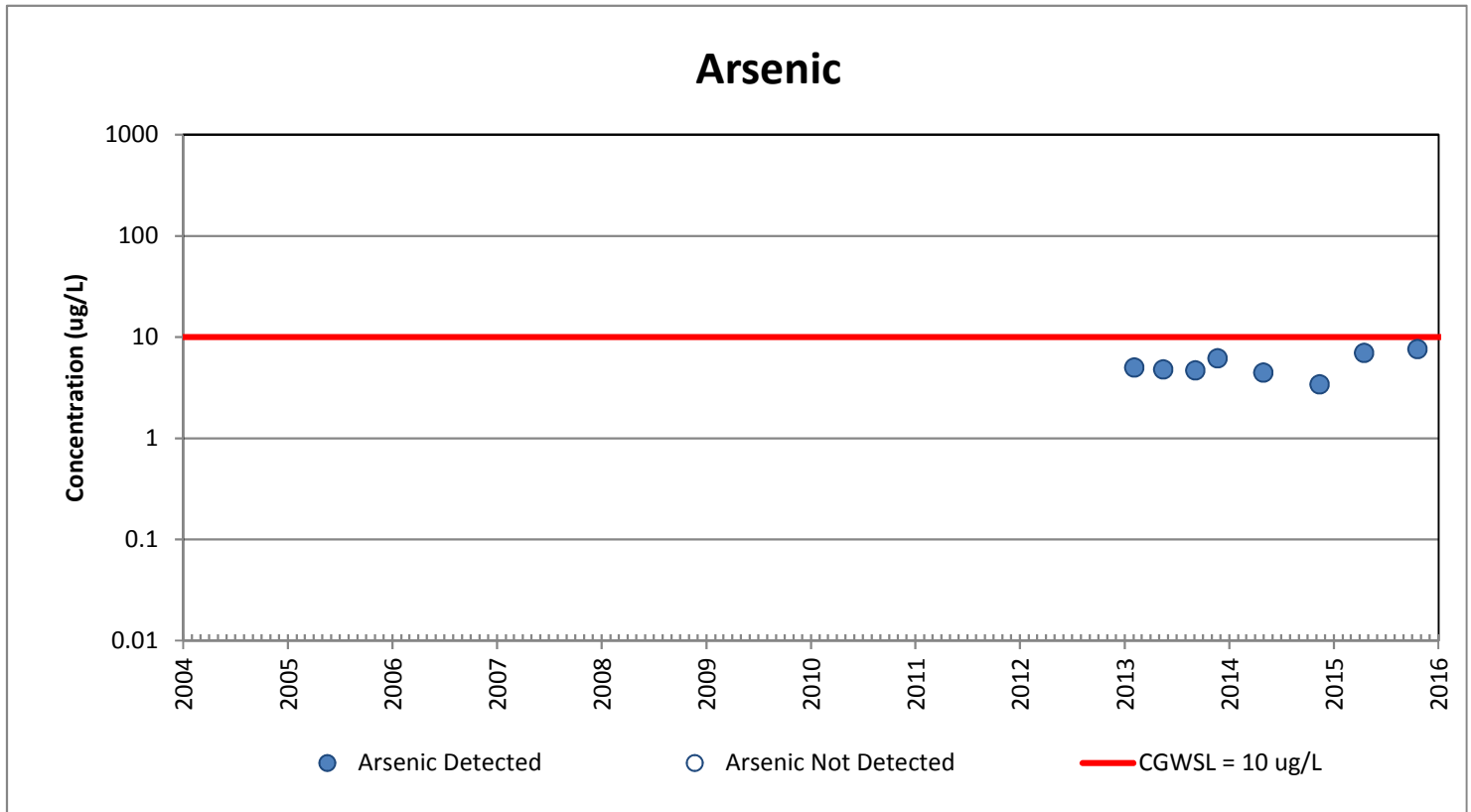
## MTBE



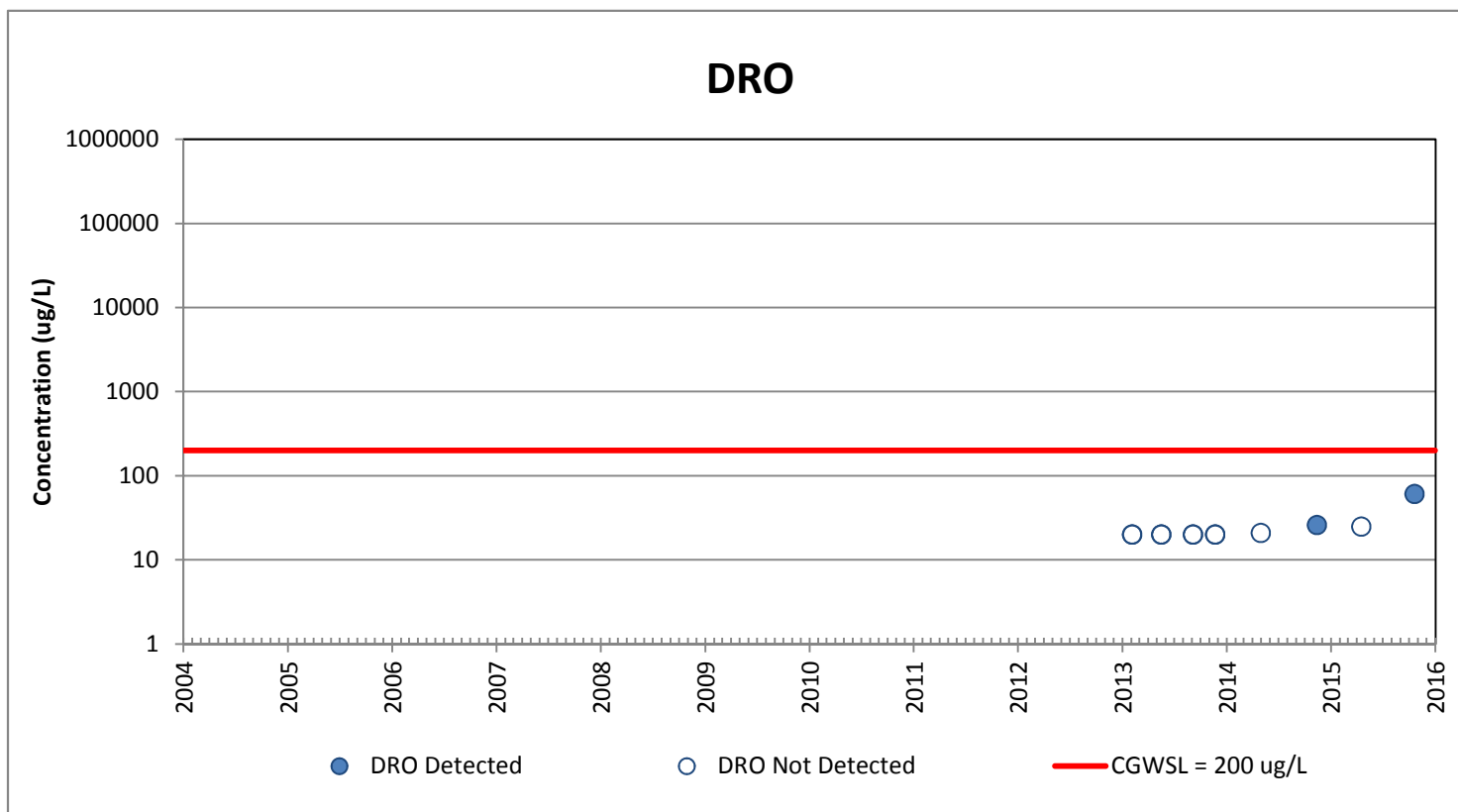
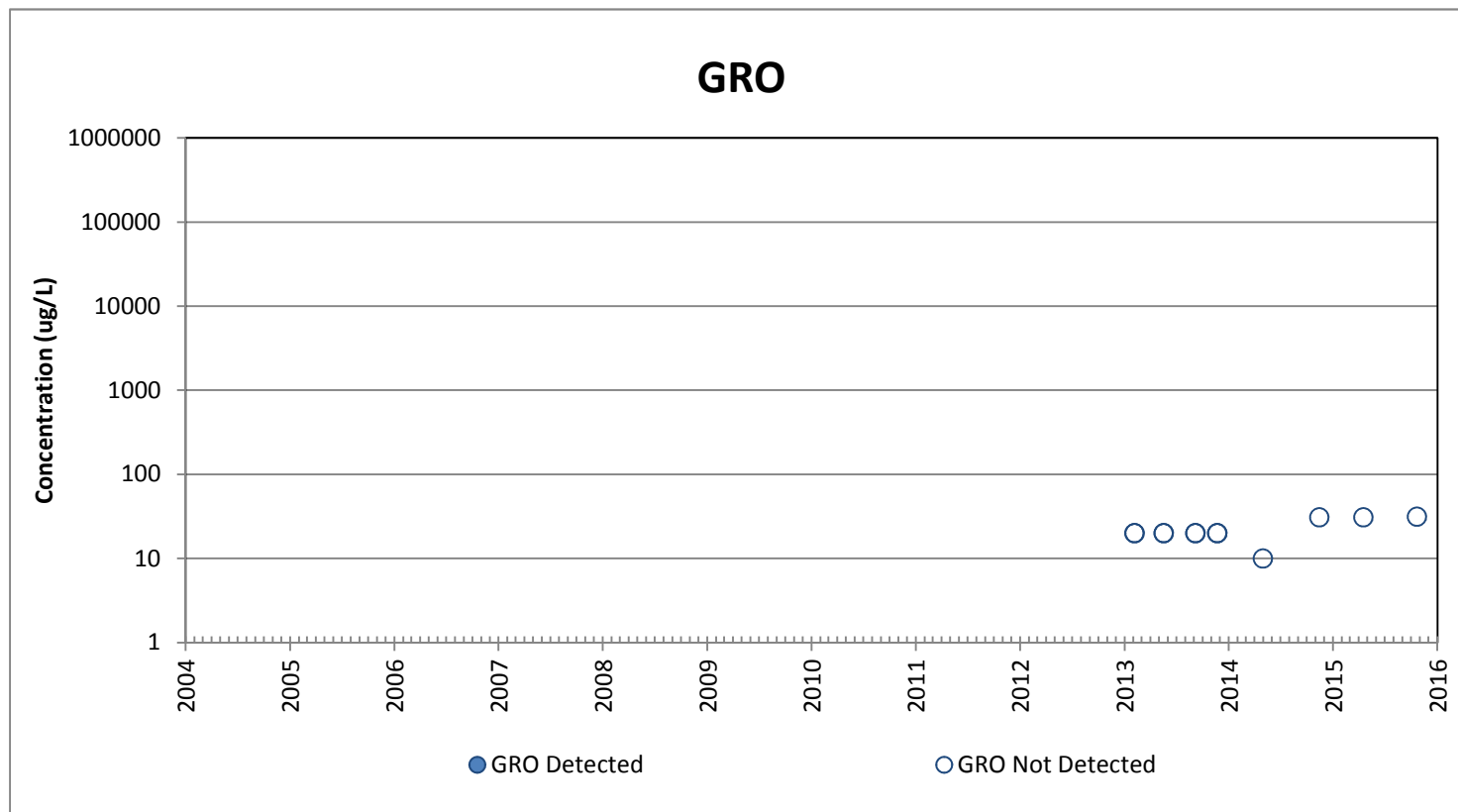
## Naphthalene



# MW-115



# MW-116

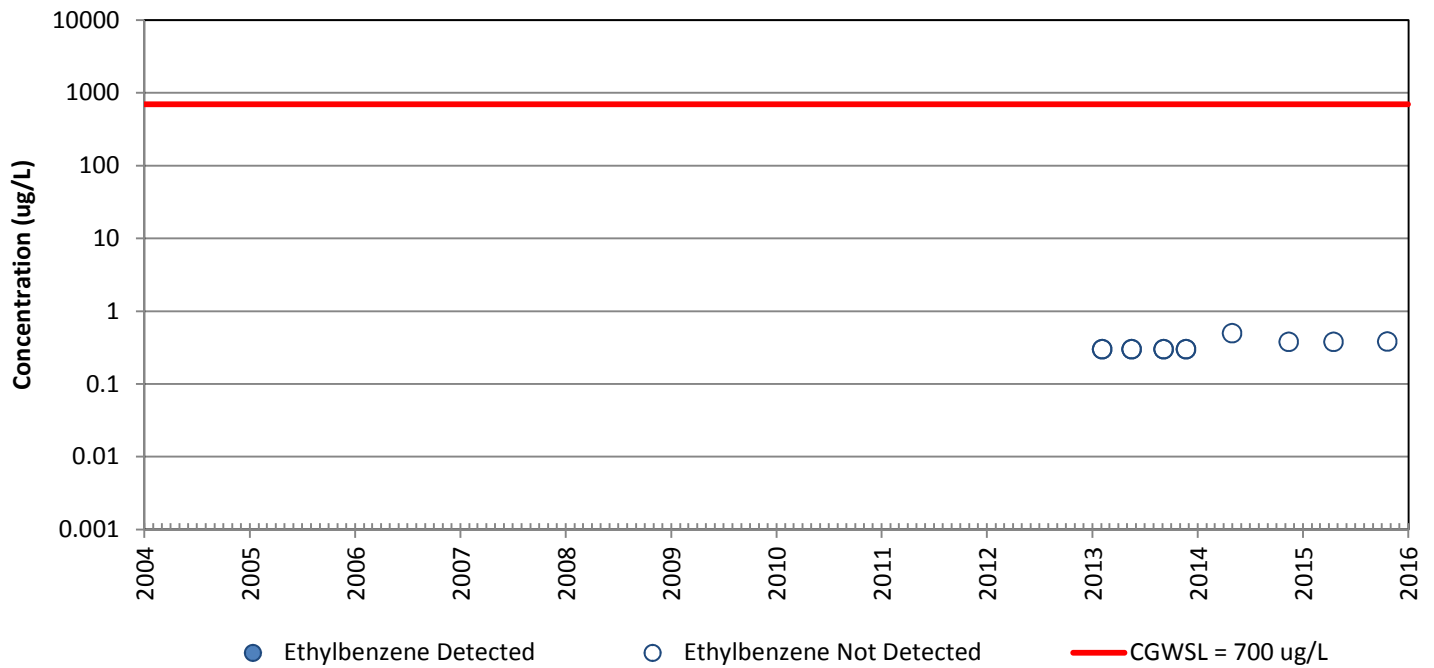


# MW-116

## Benzene

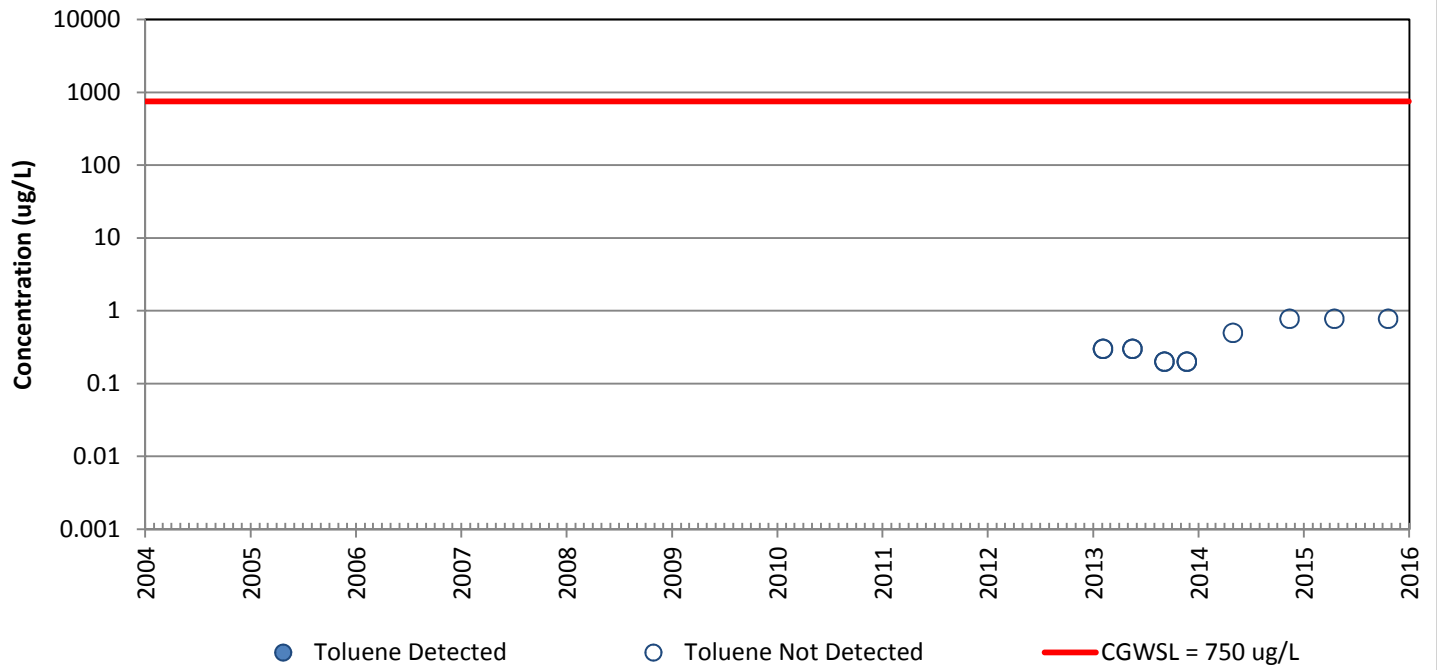


## Ethylbenzene

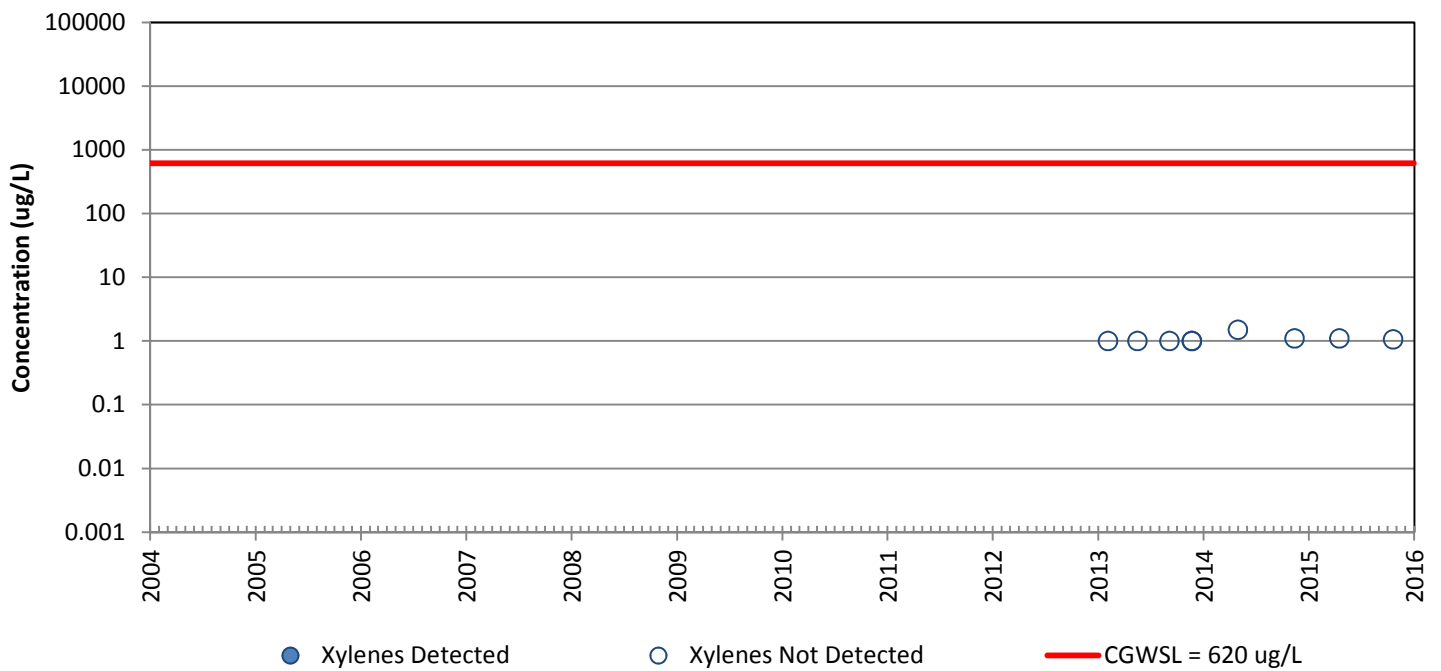


# MW-116

## Toluene

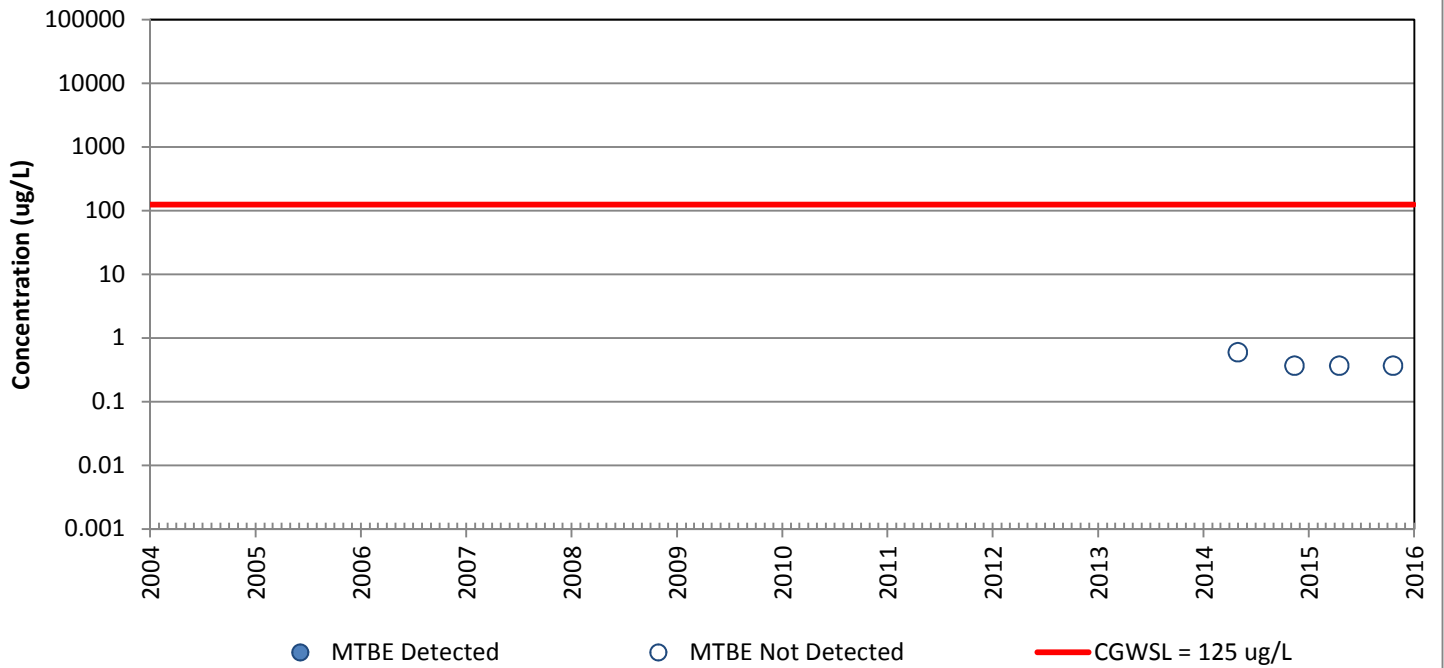


## Xylenes

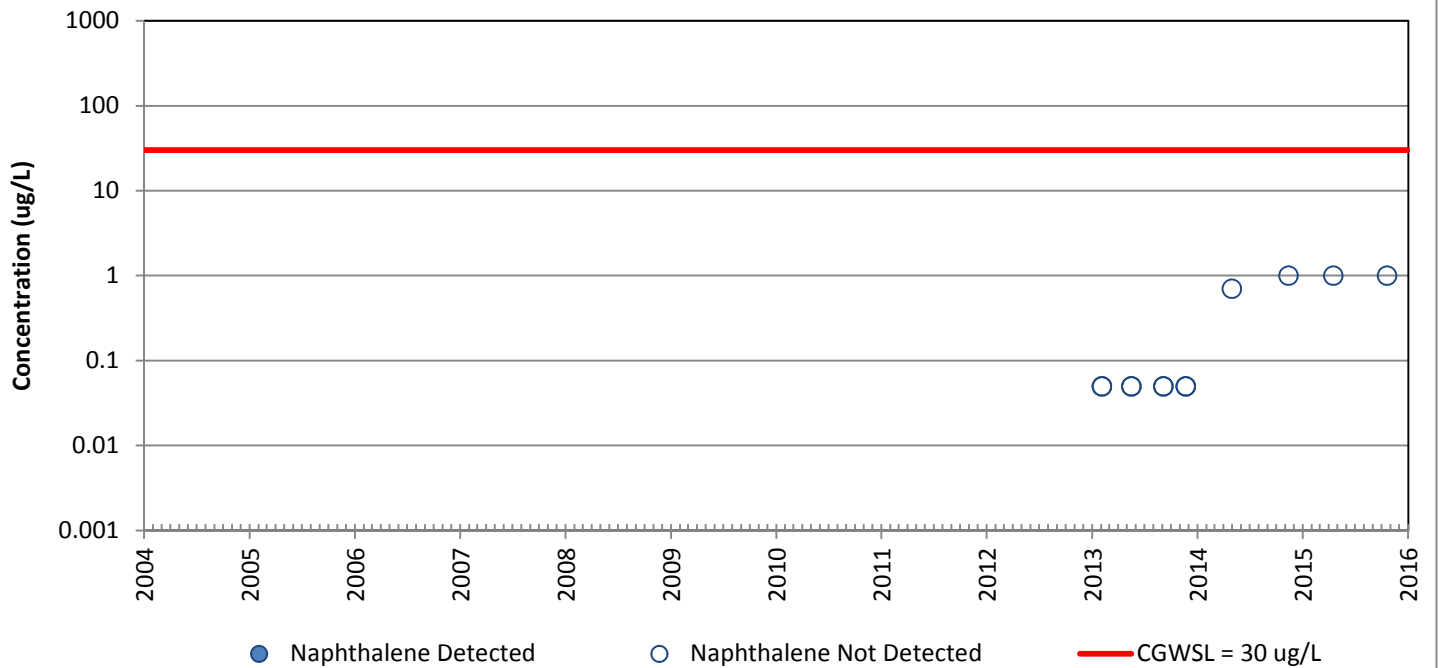


# MW-116

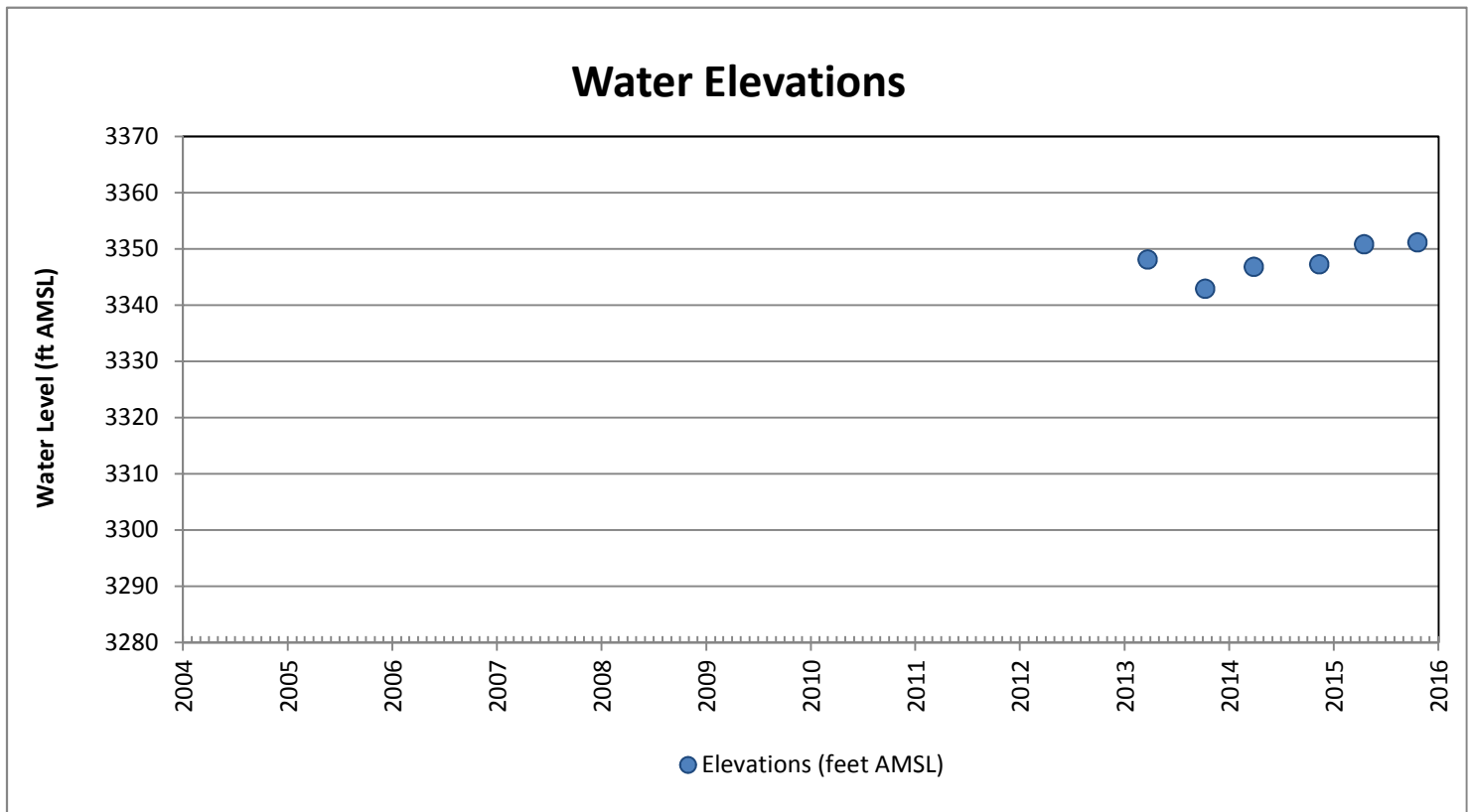
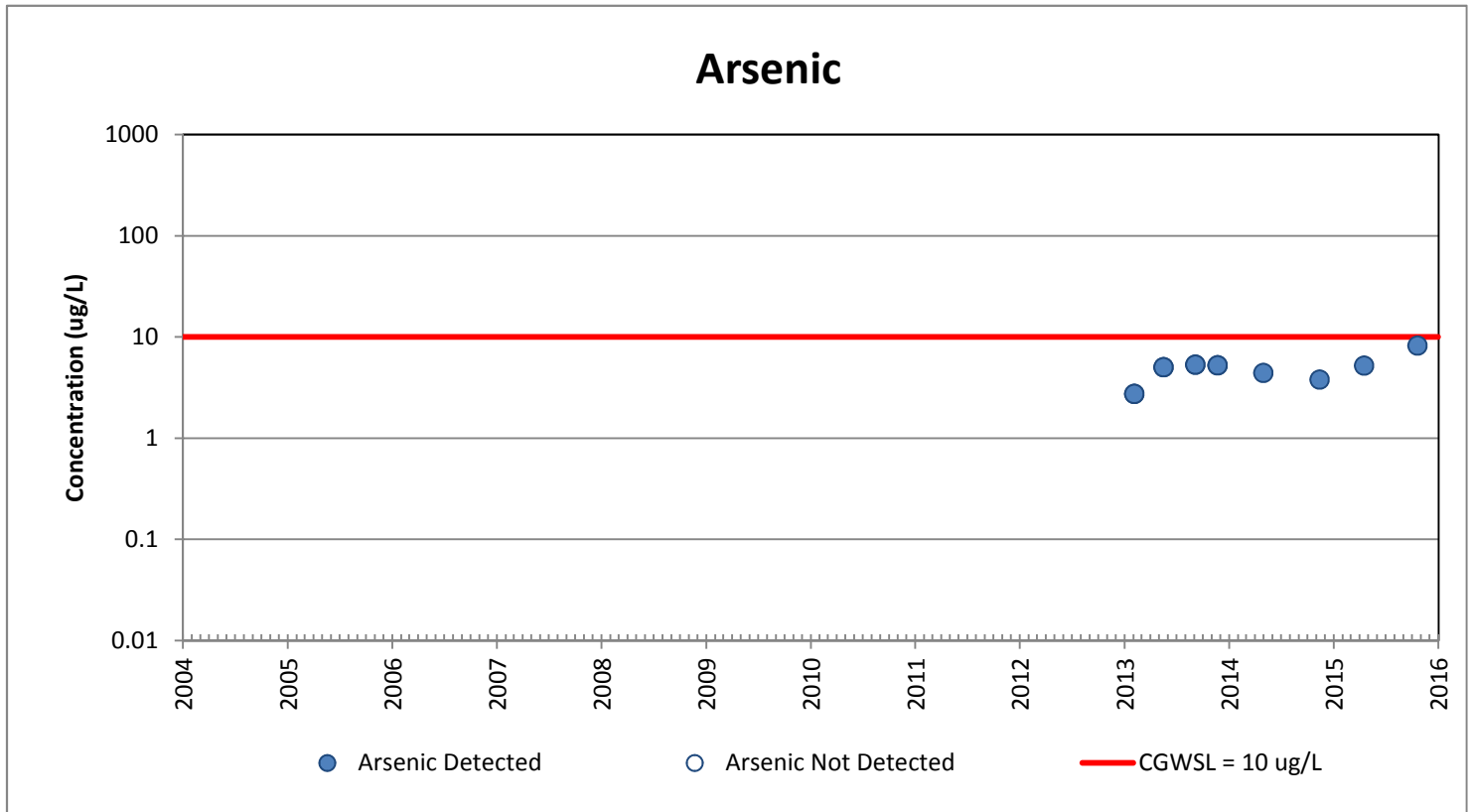
## MTBE



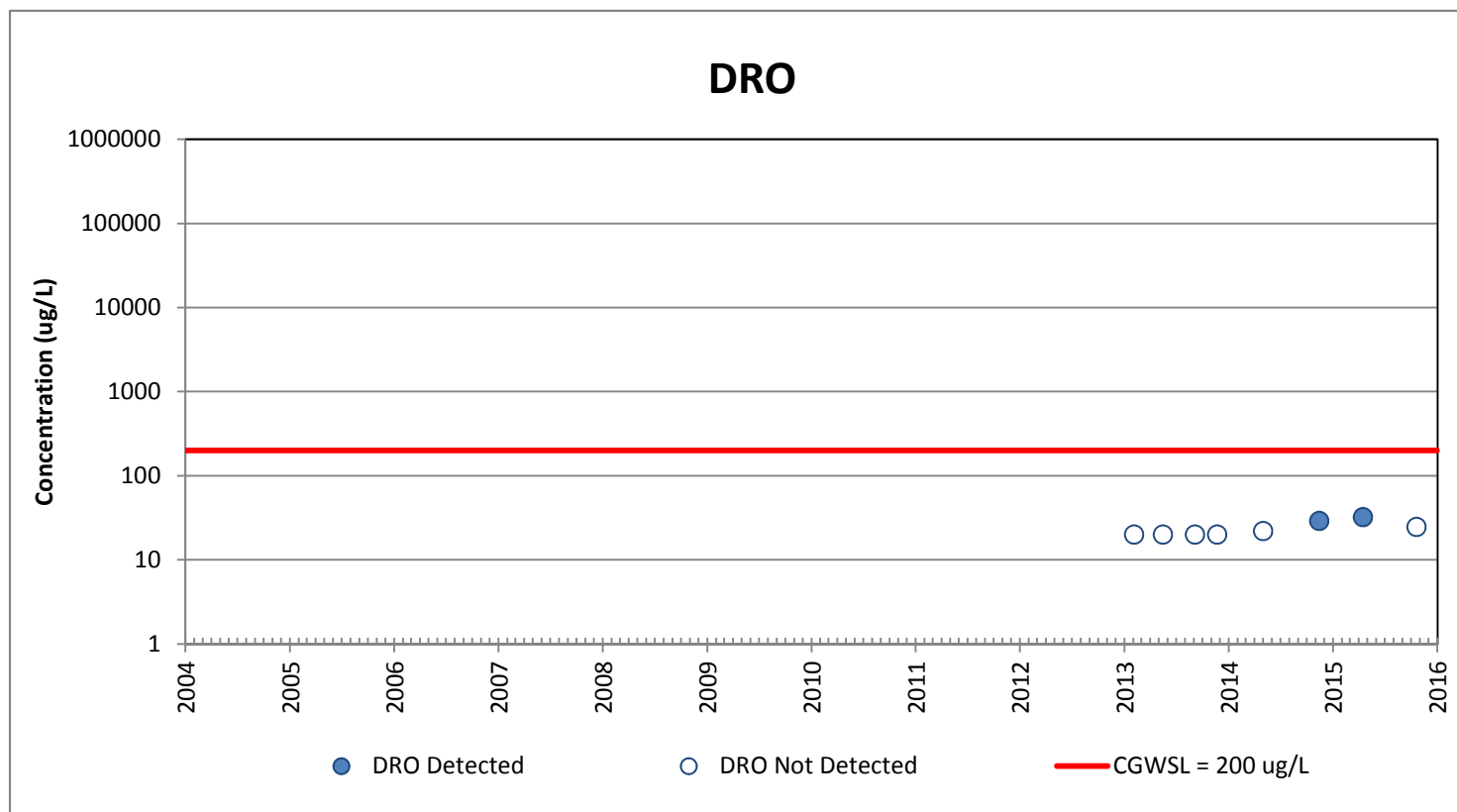
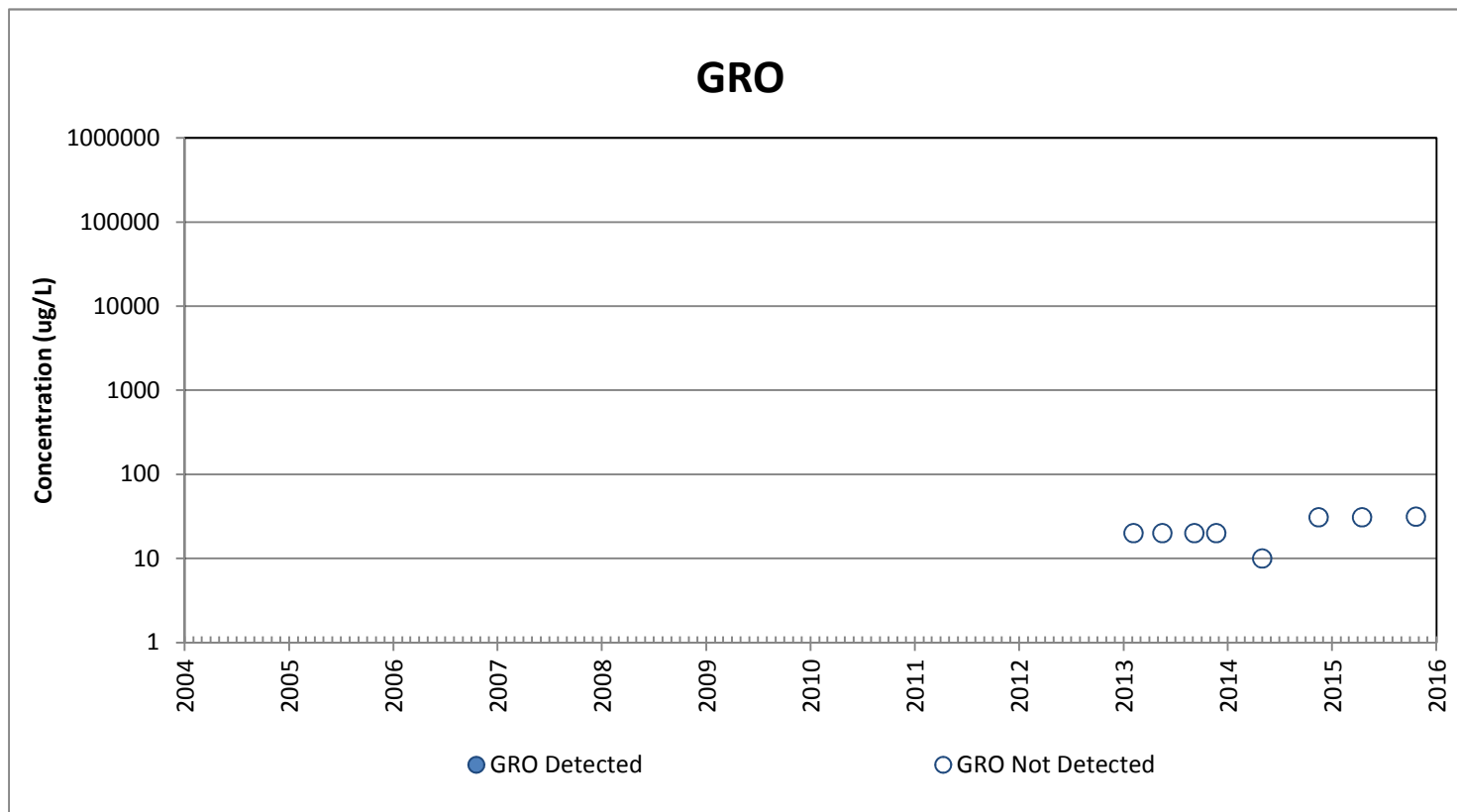
## Naphthalene



# MW-116



# MW-117

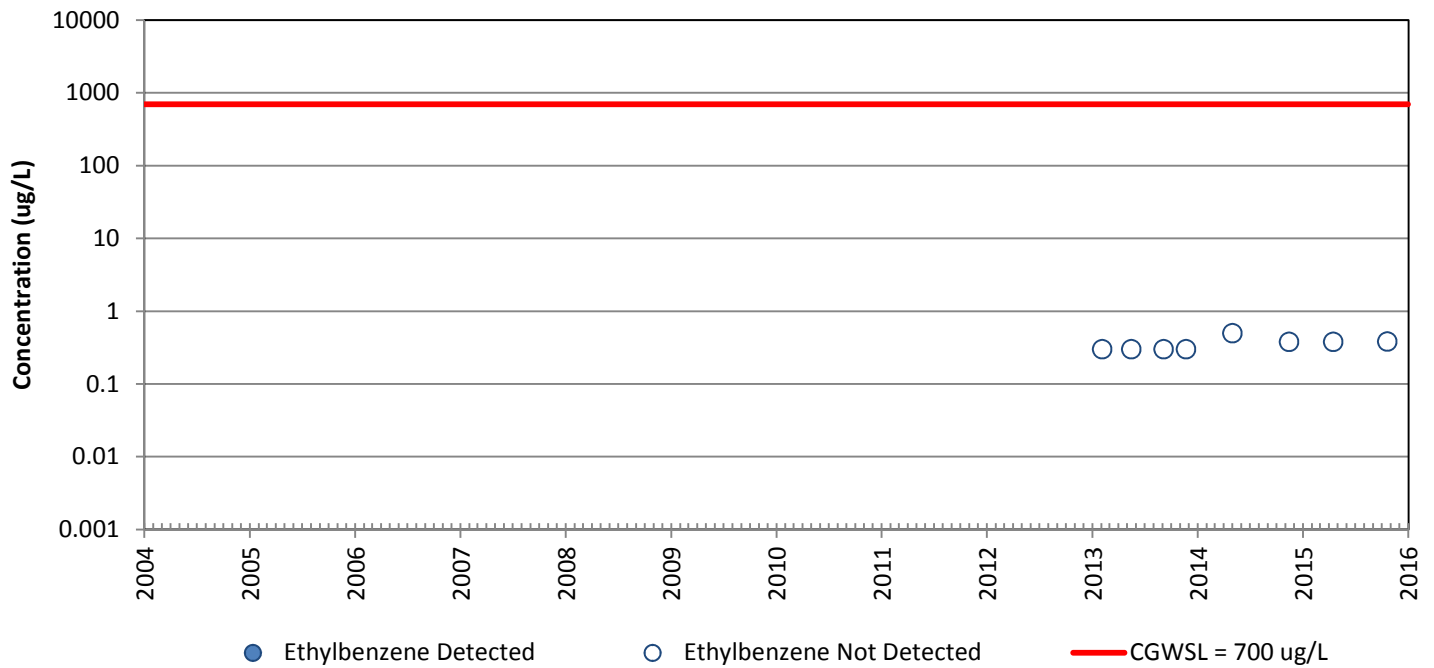


# MW-117

## Benzene

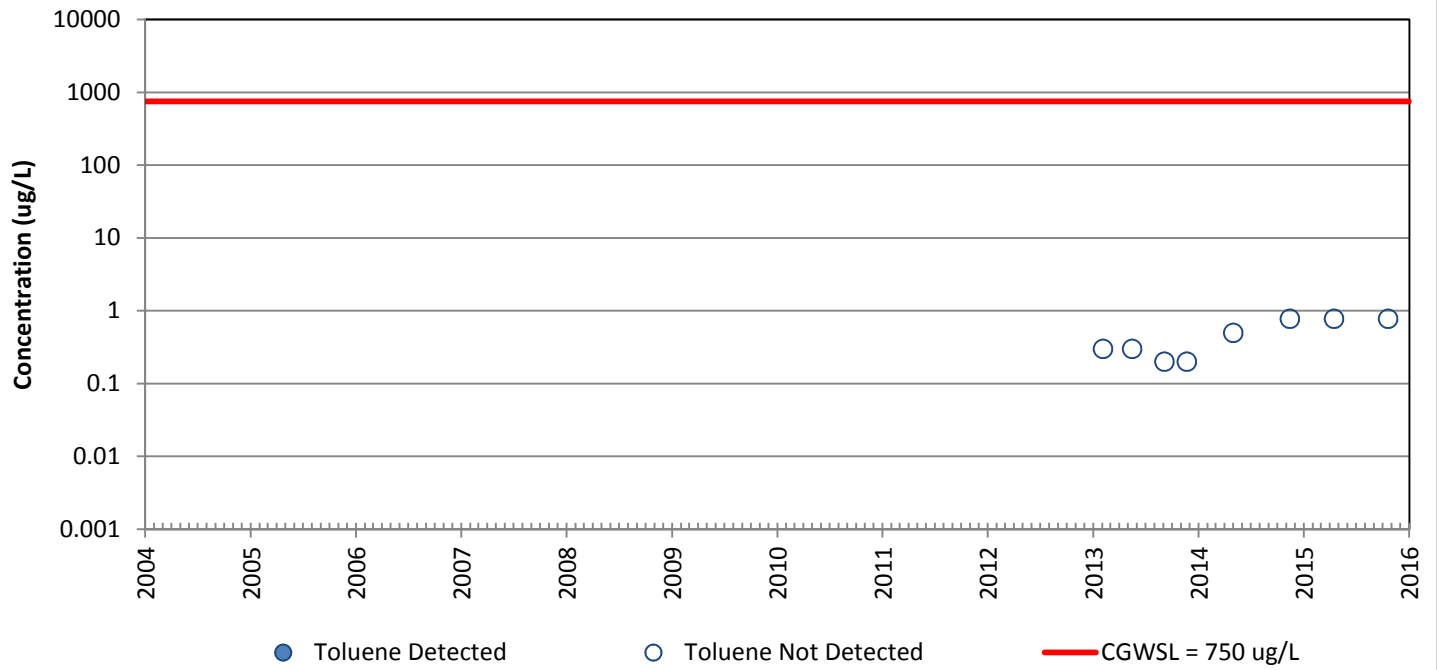


## Ethylbenzene

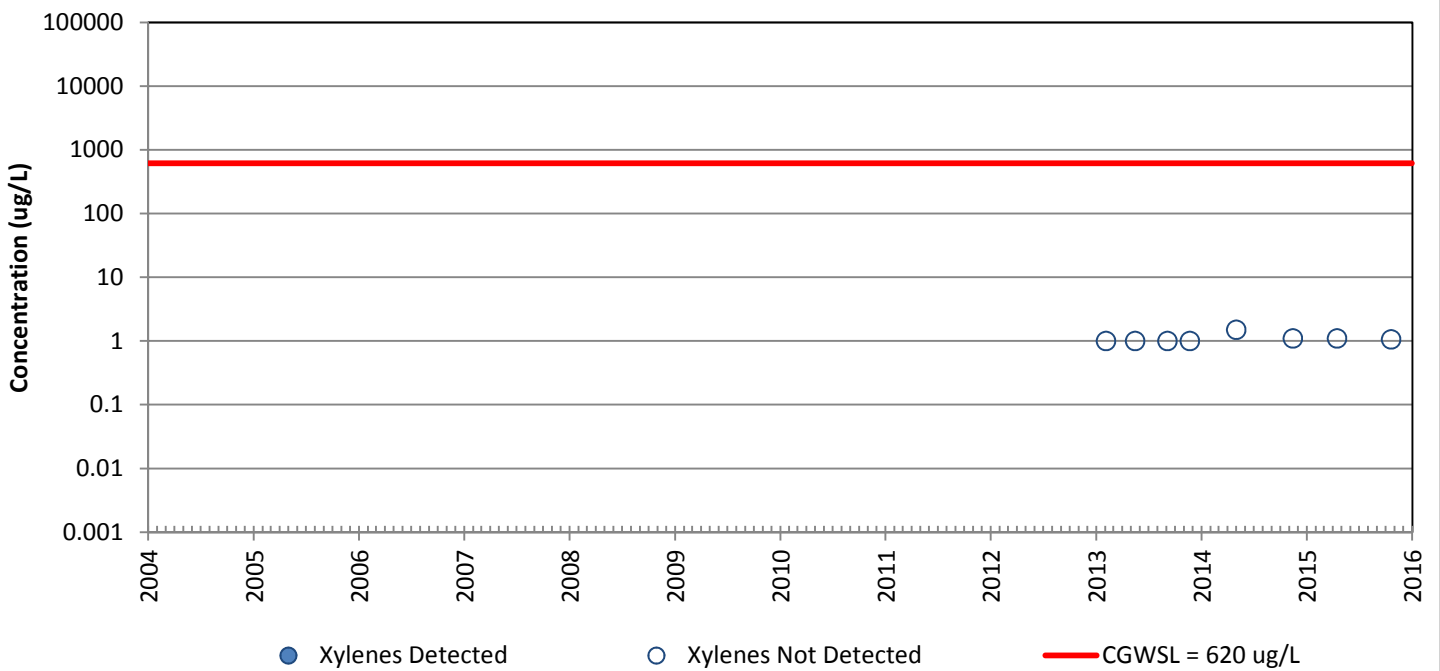


# MW-117

## Toluene

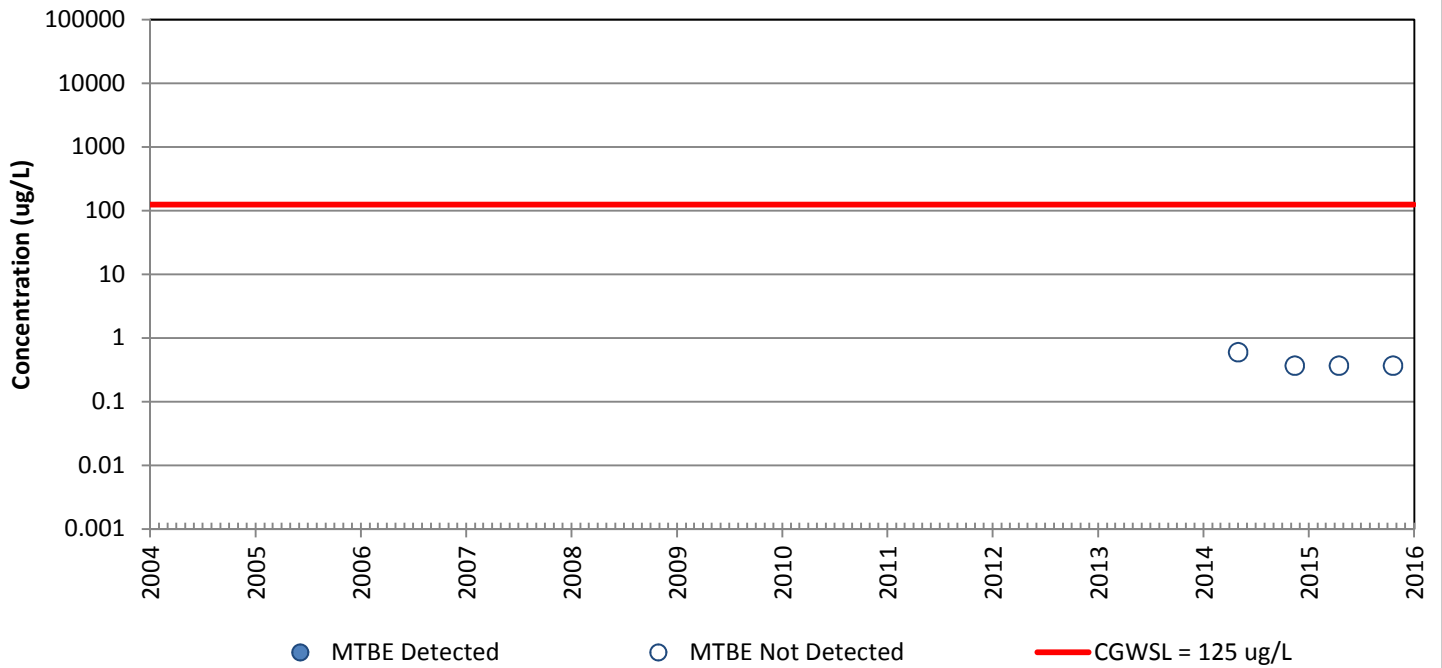


## Xylenes

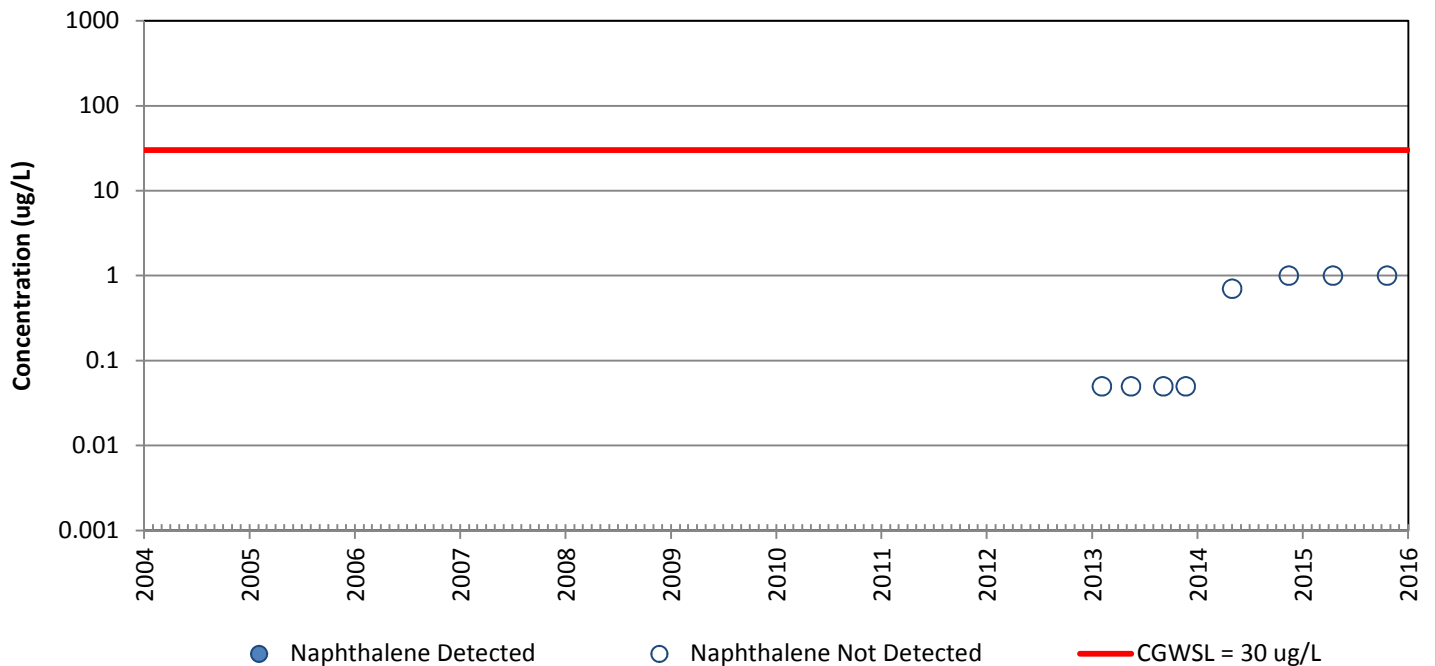


# MW-117

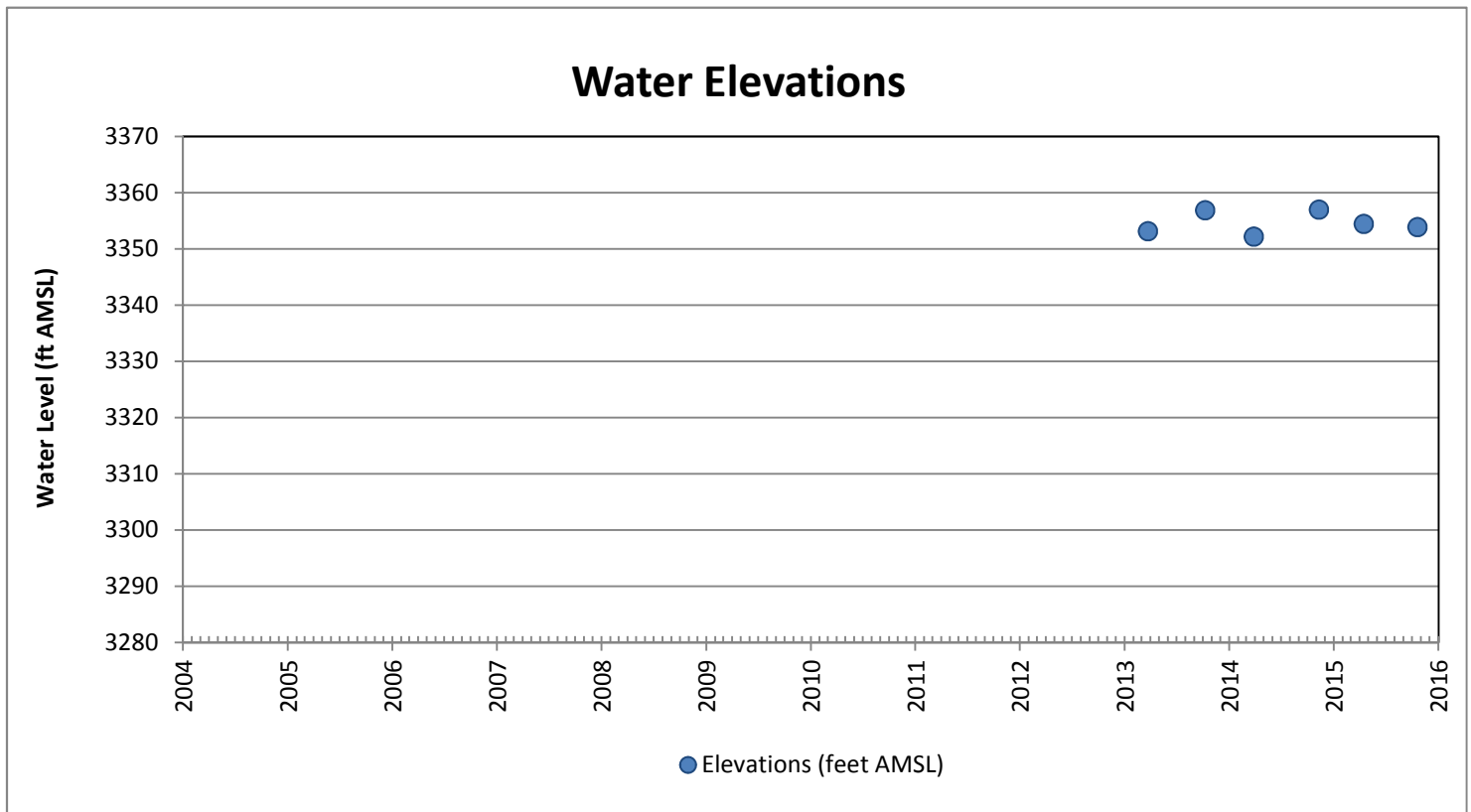
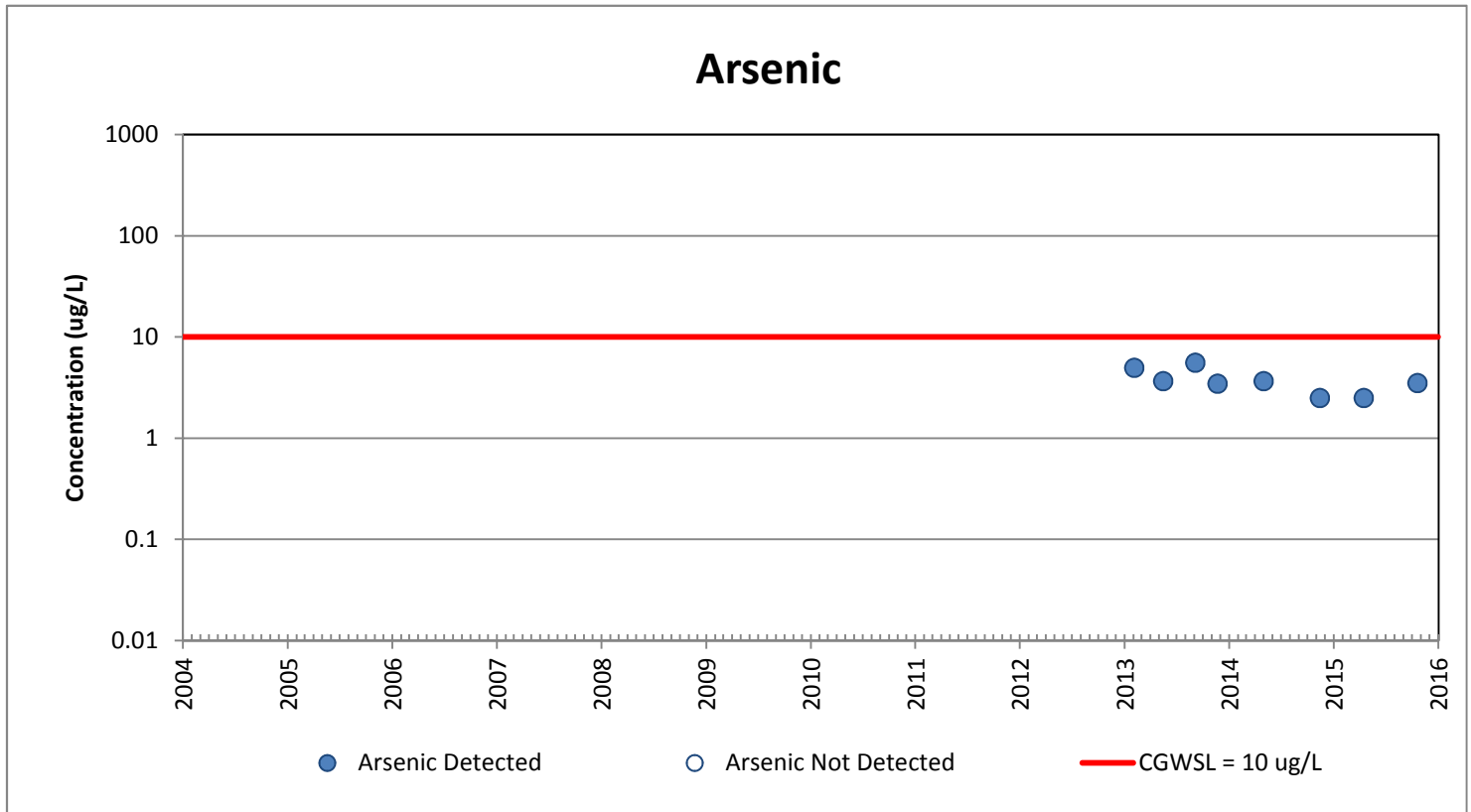
## MTBE



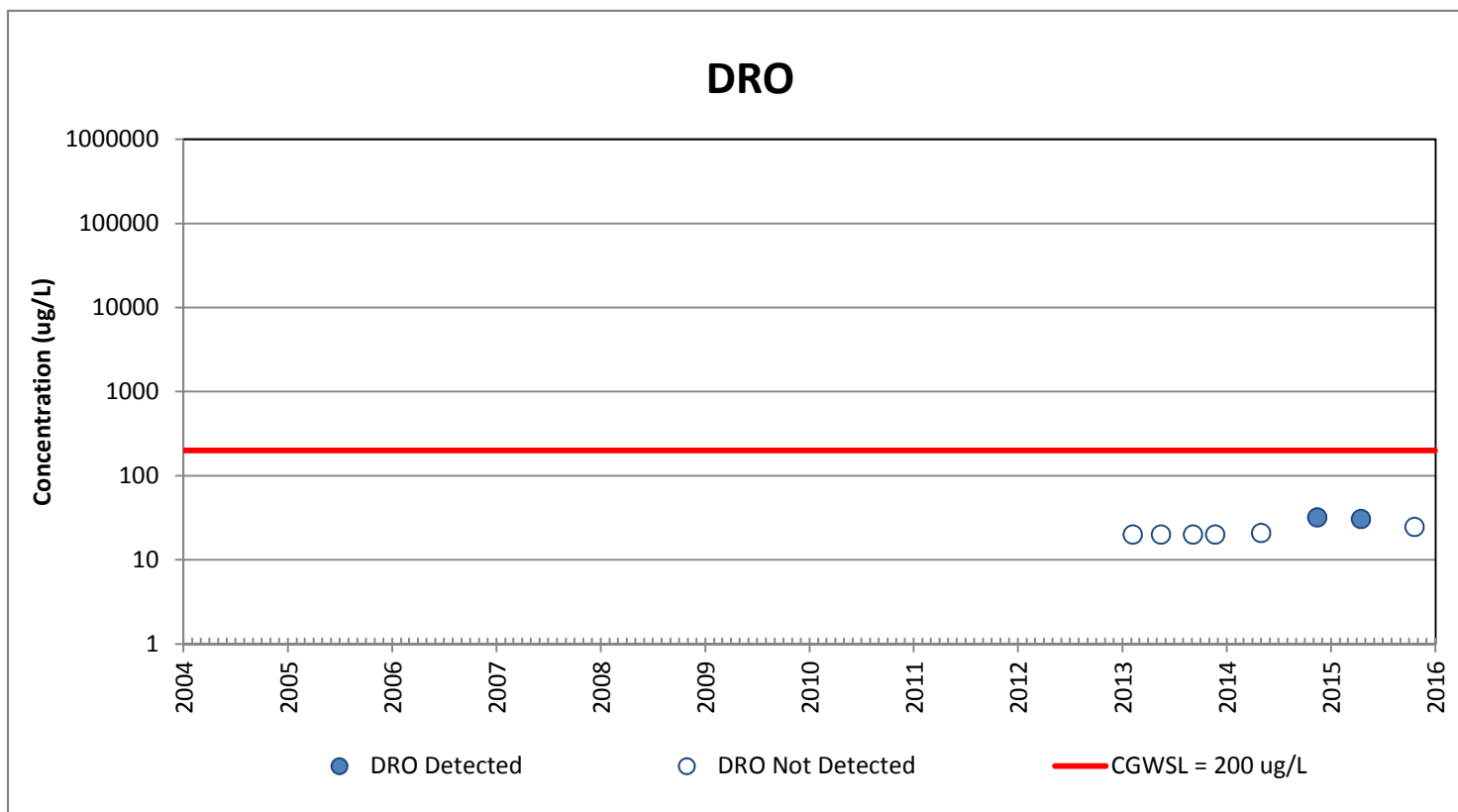
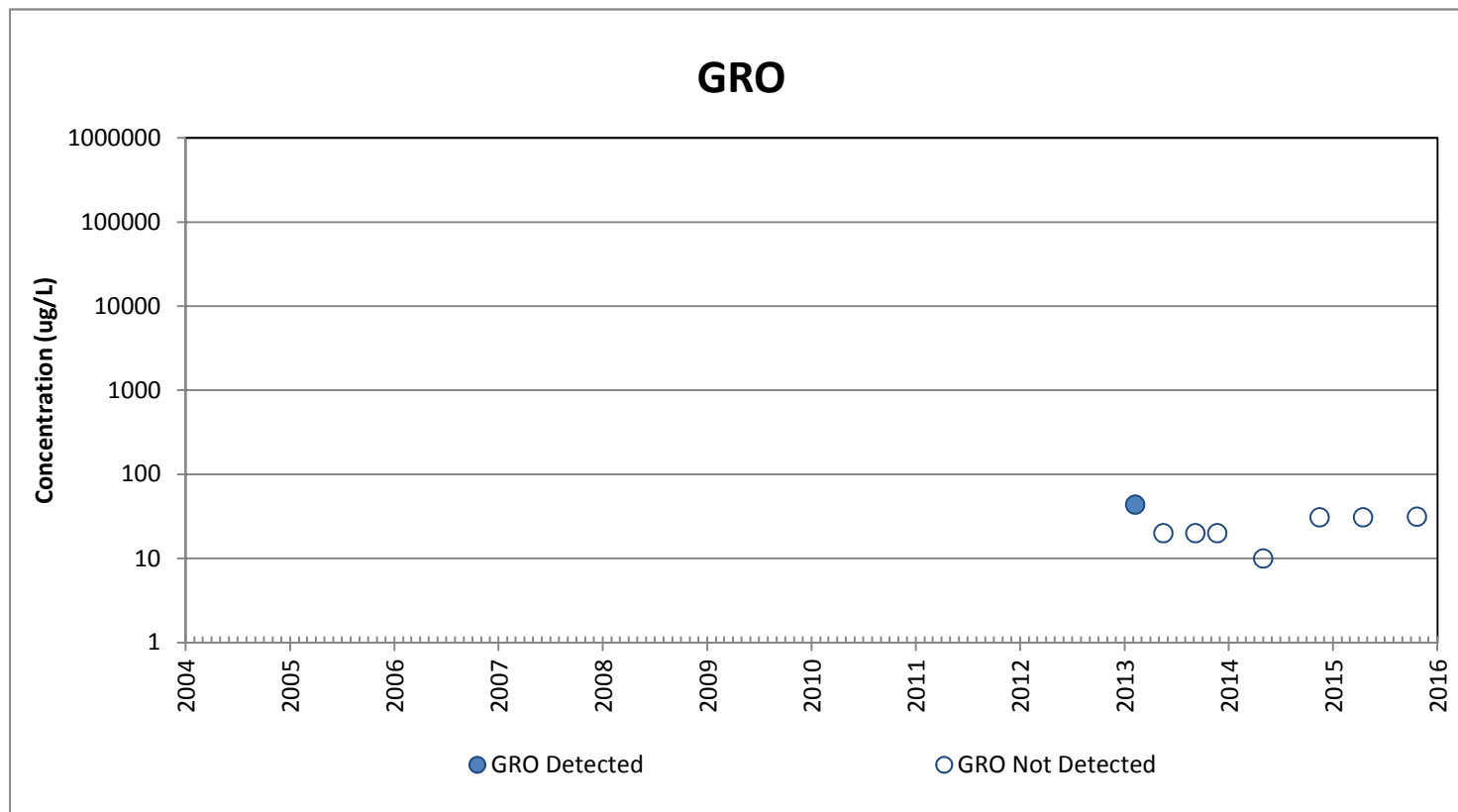
## Naphthalene



# MW-117



# MW-118

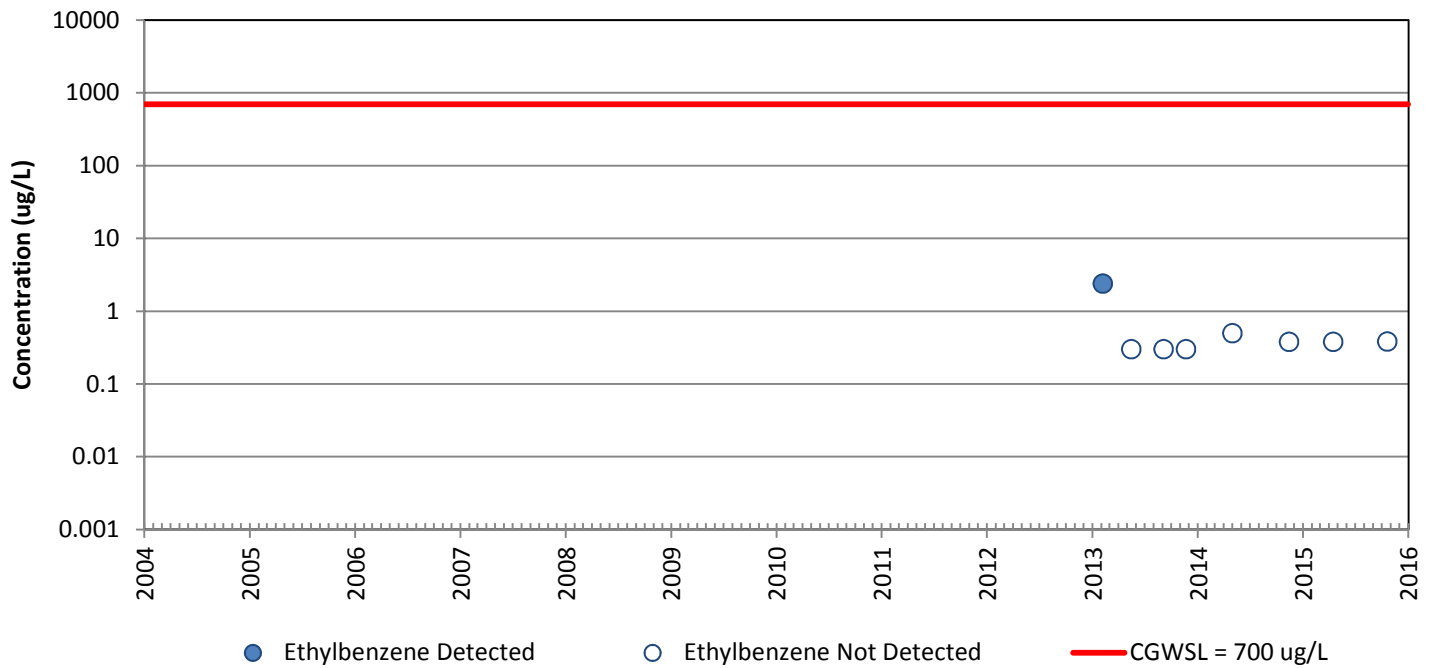


# MW-118

## Benzene

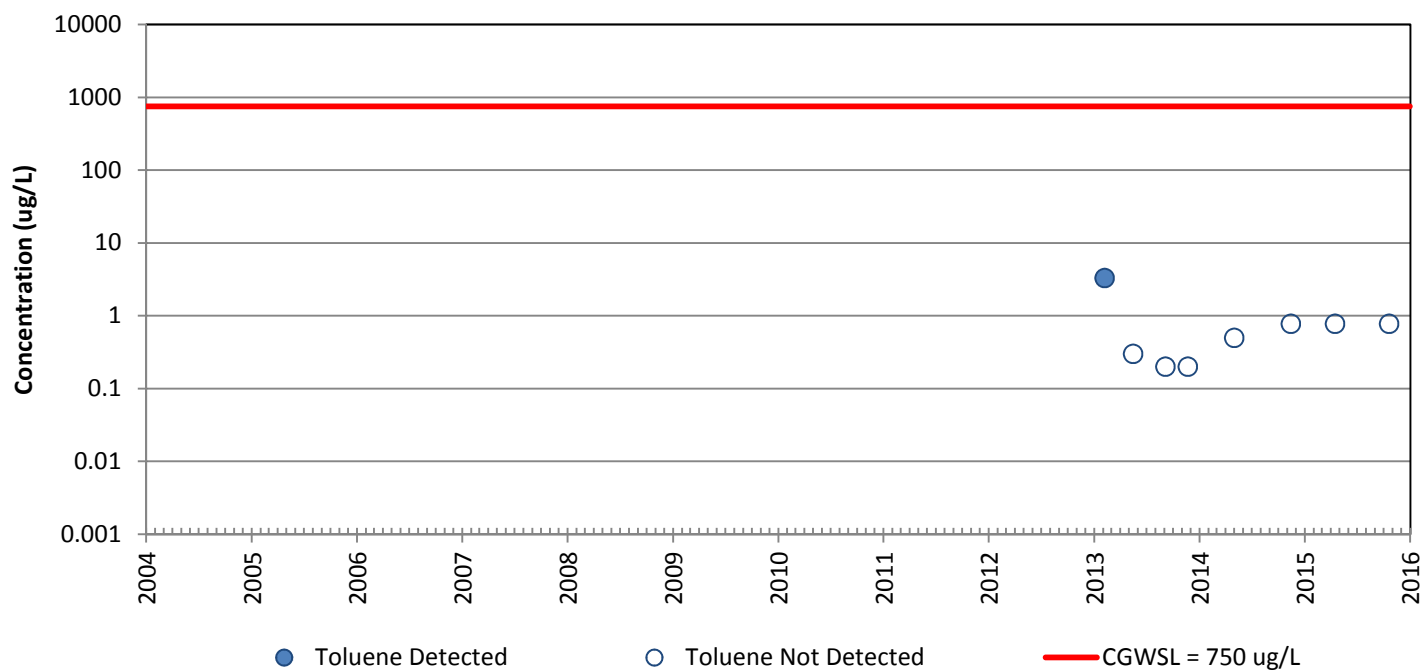


## Ethylbenzene

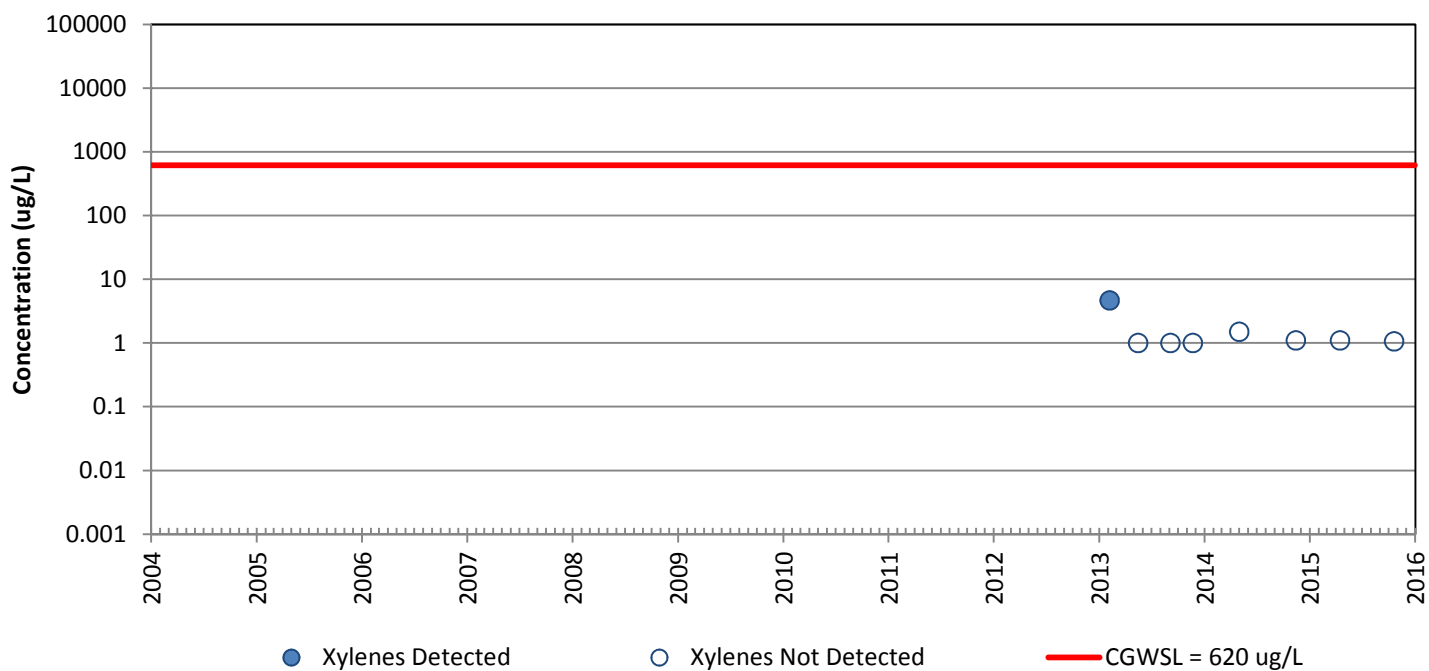


# MW-118

## Toluene

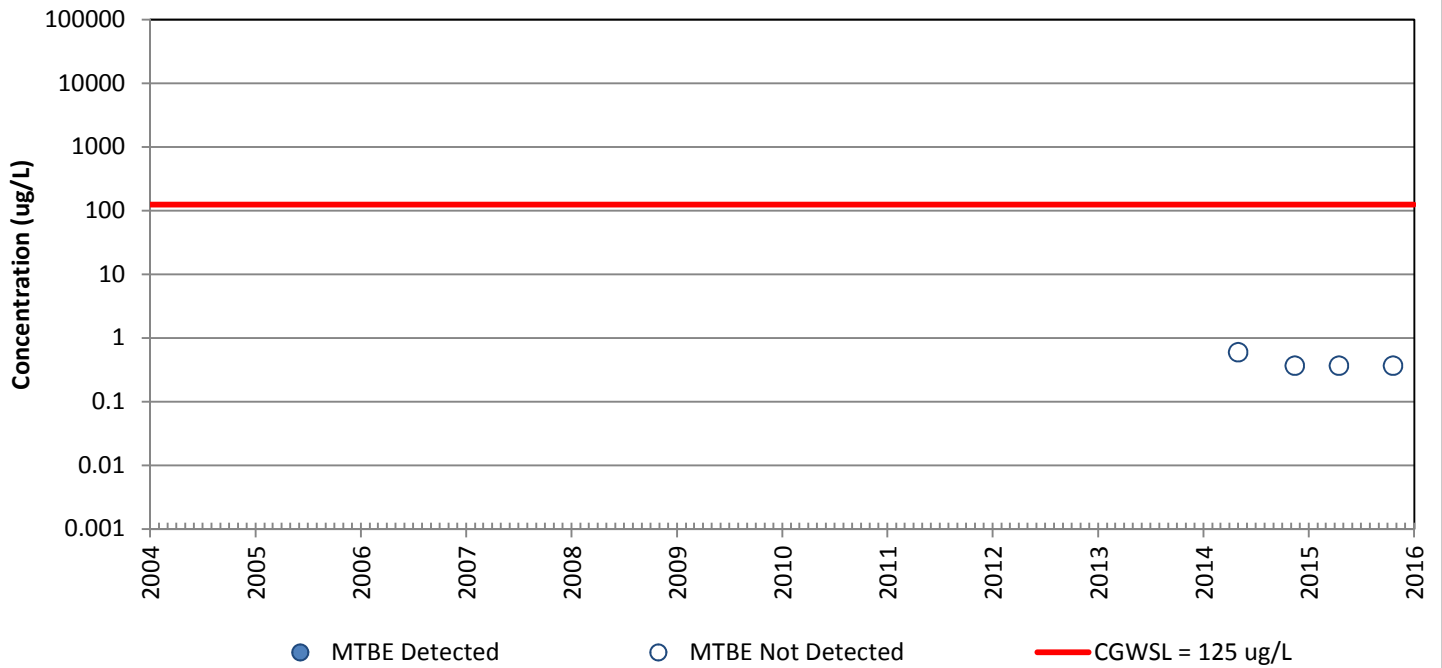


## Xylenes

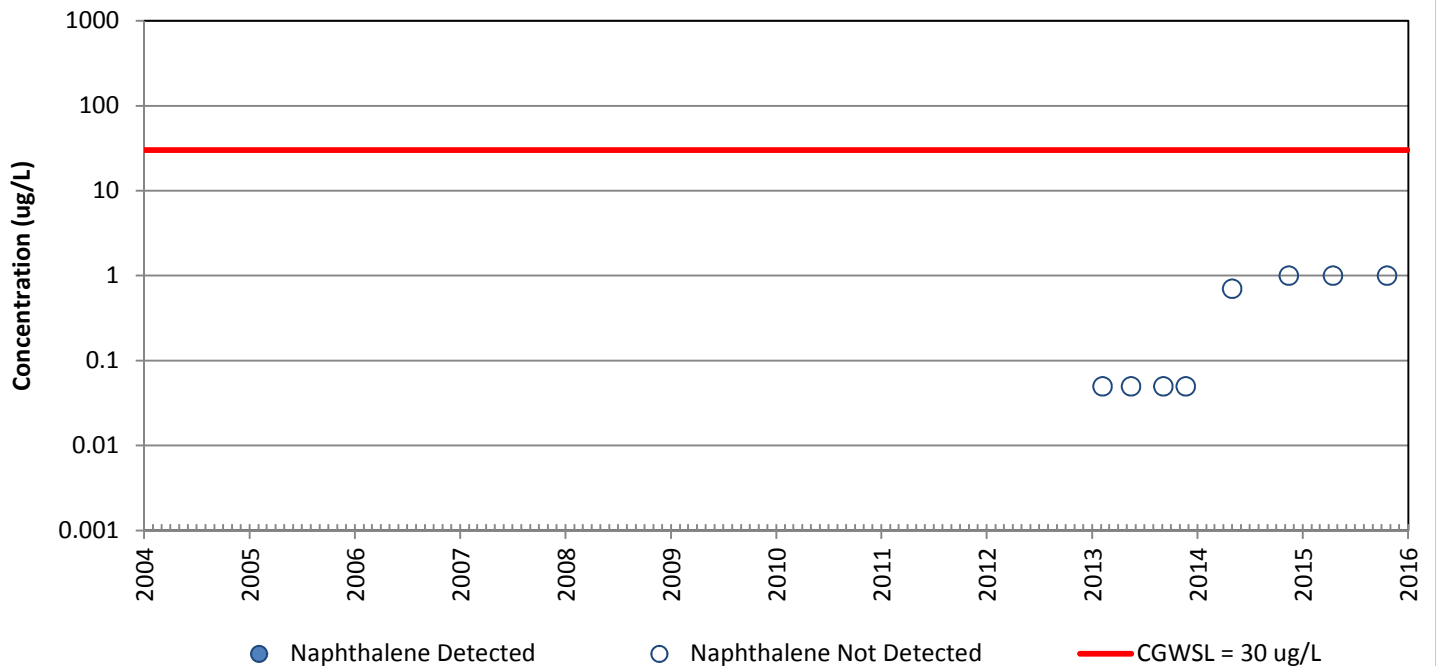


# MW-118

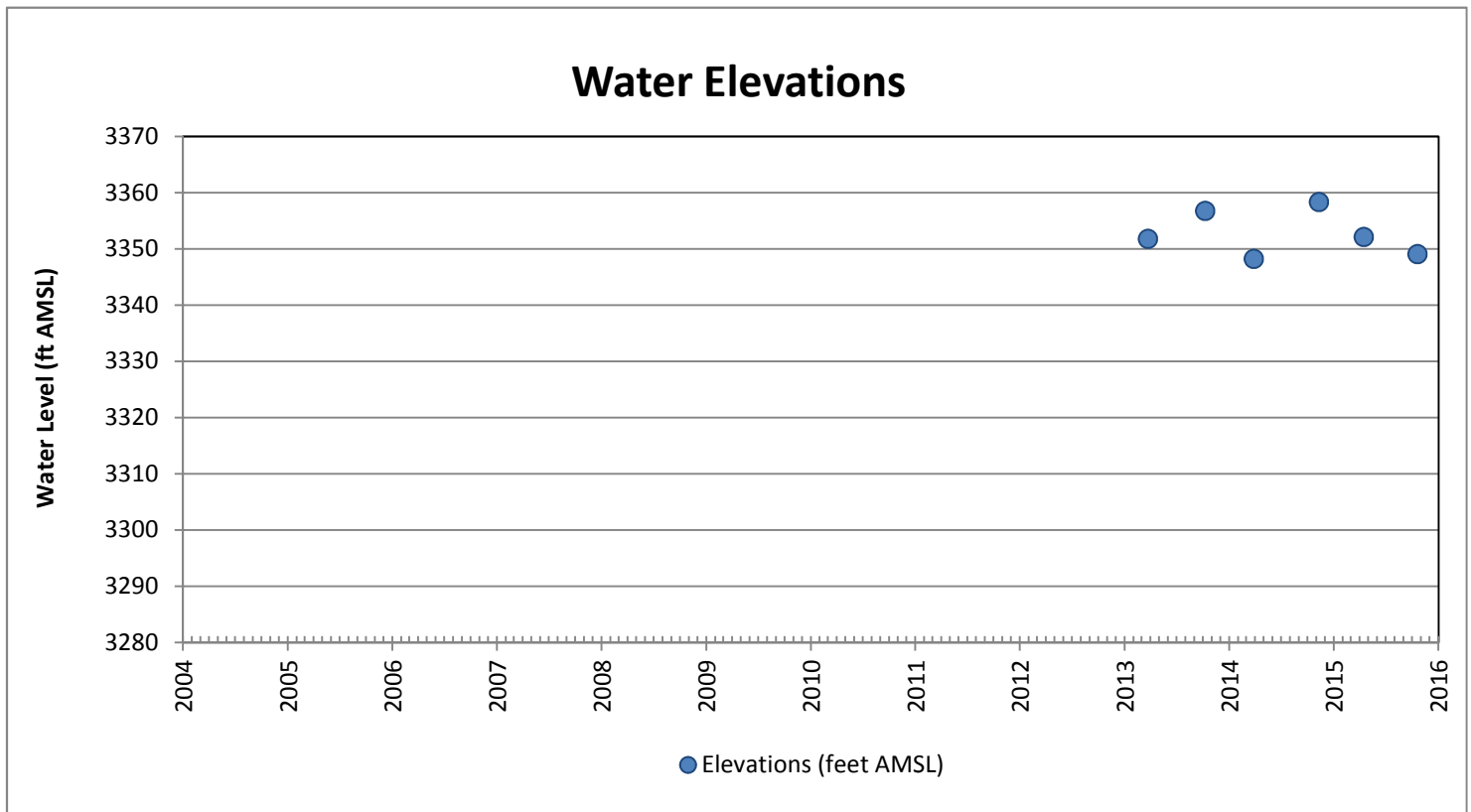
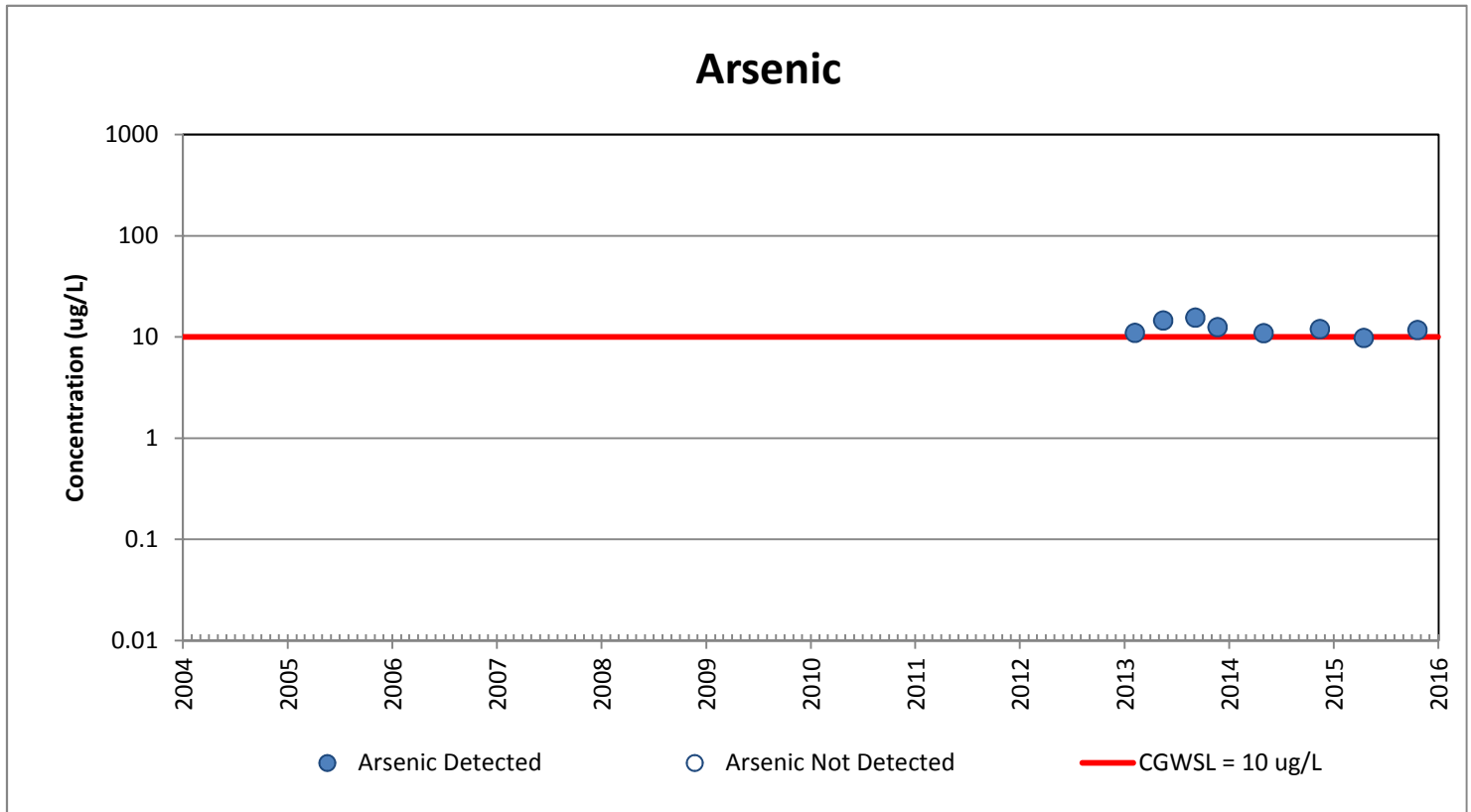
## MTBE



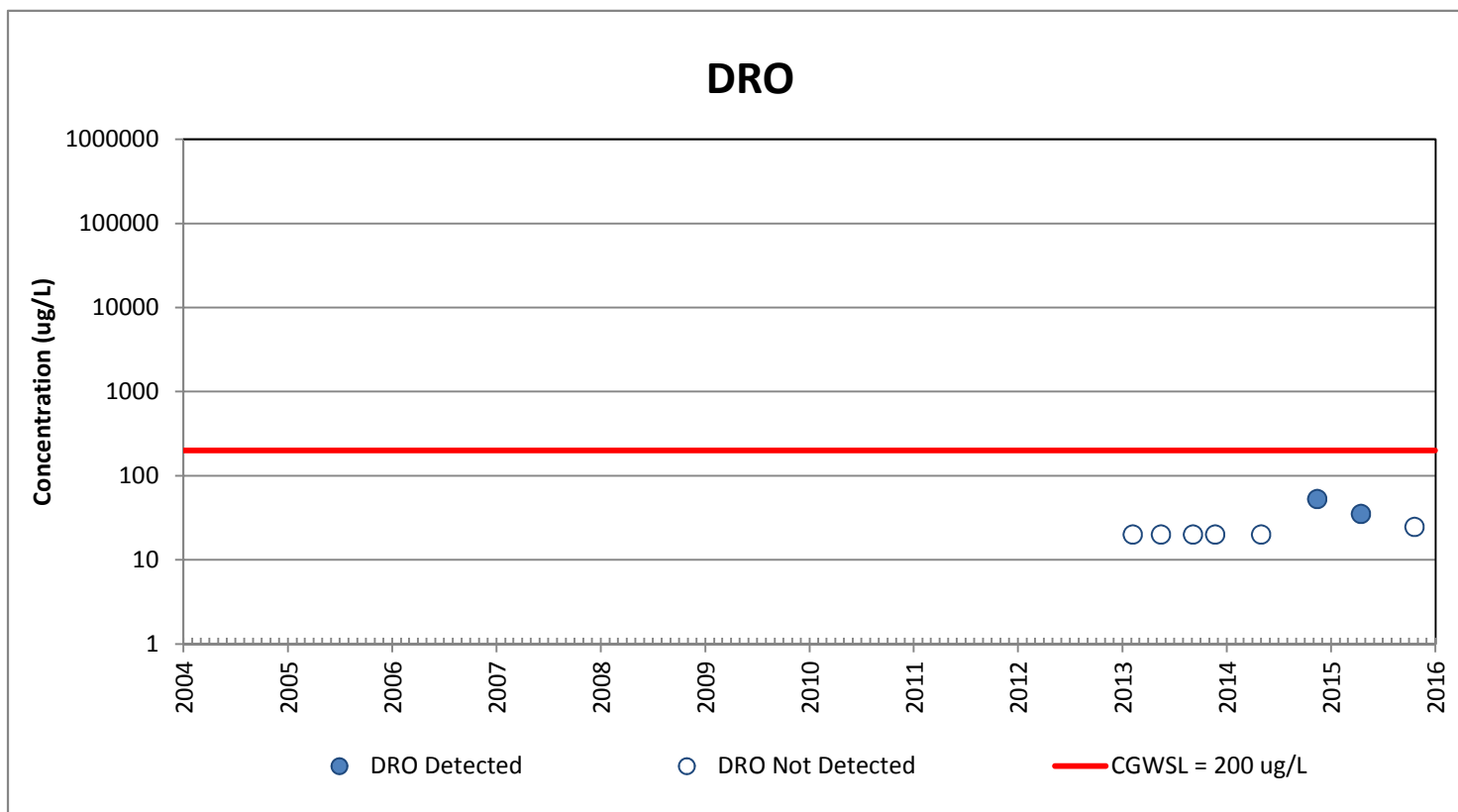
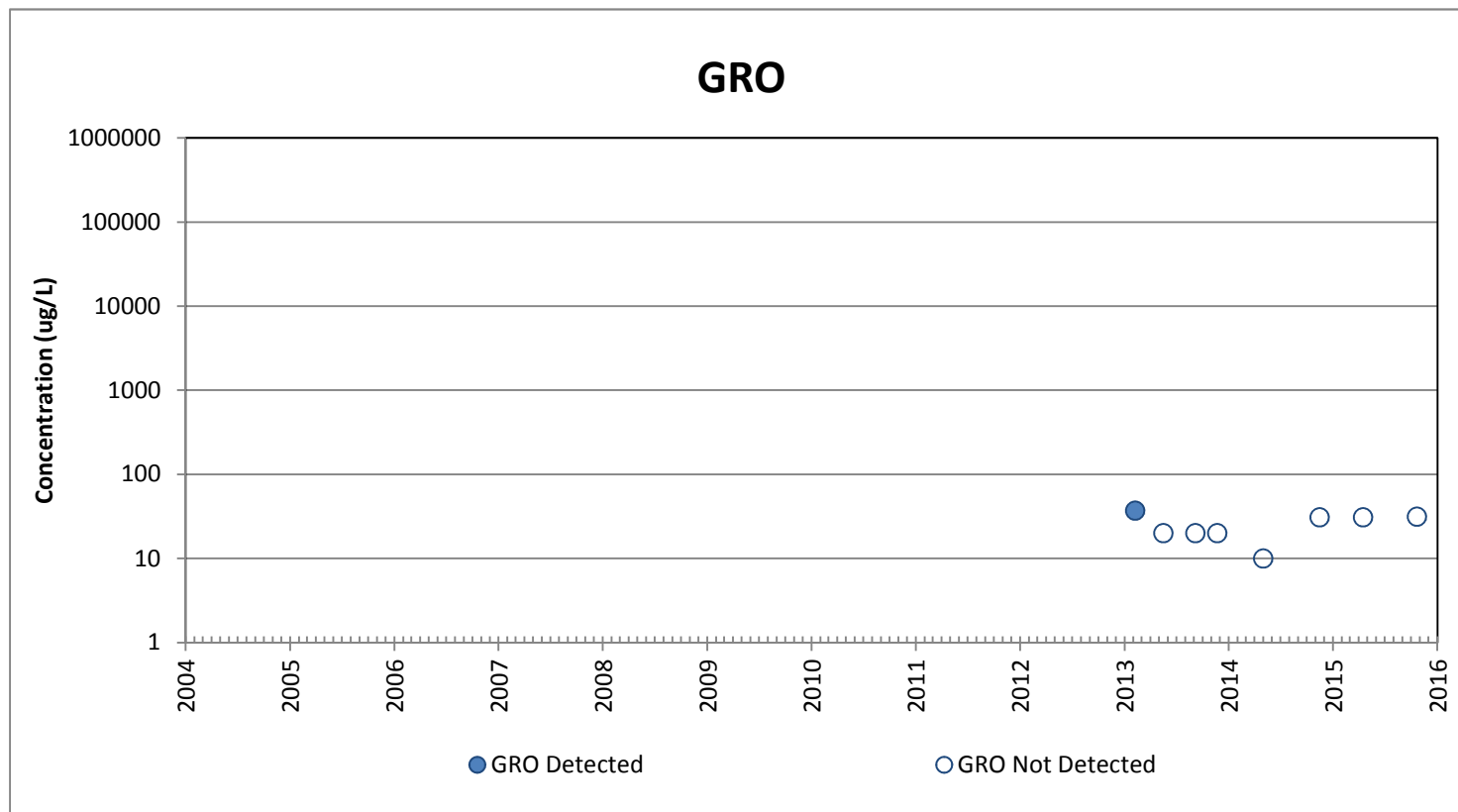
## Naphthalene



# MW-118

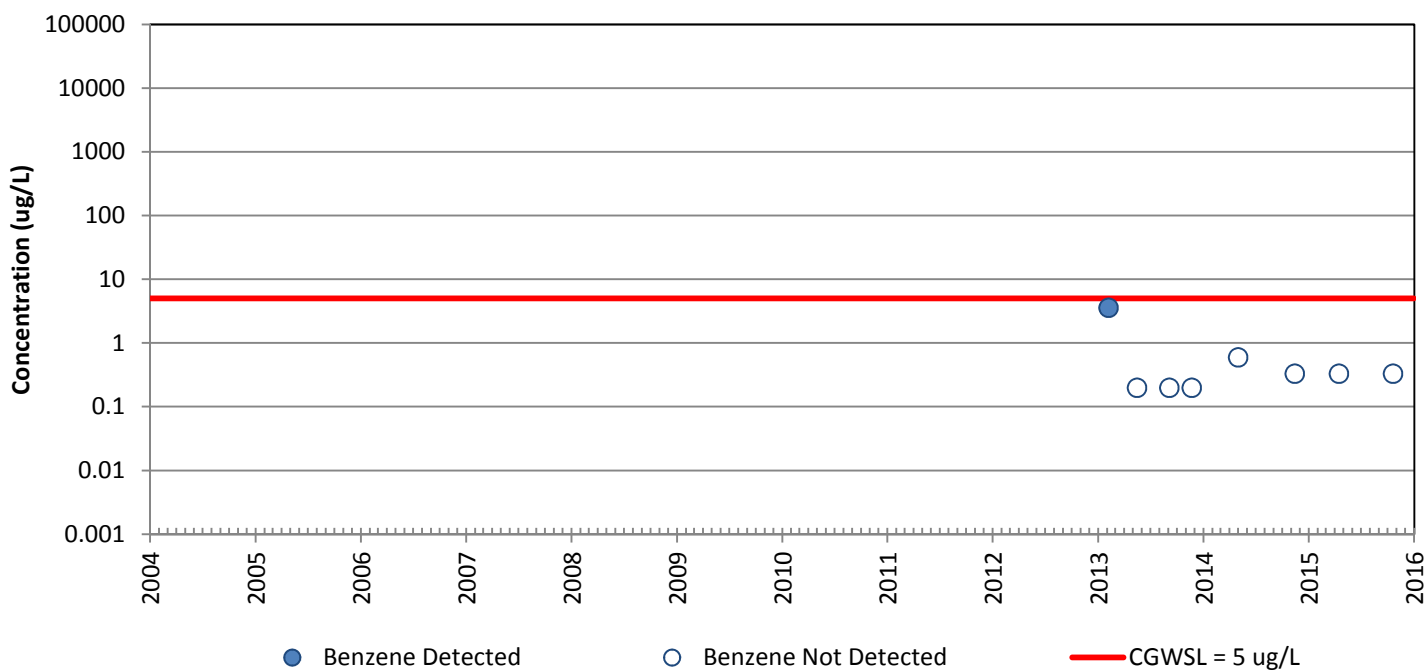


# MW-119

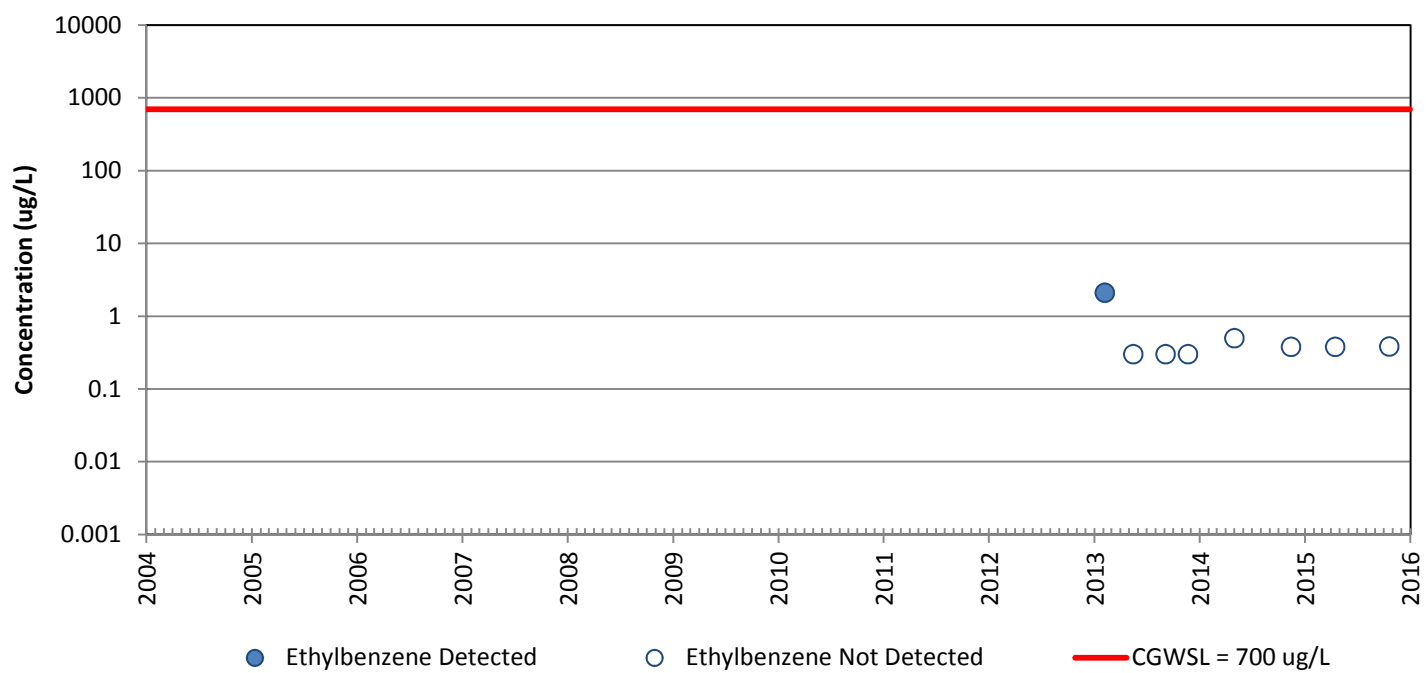


# MW-119

## Benzene

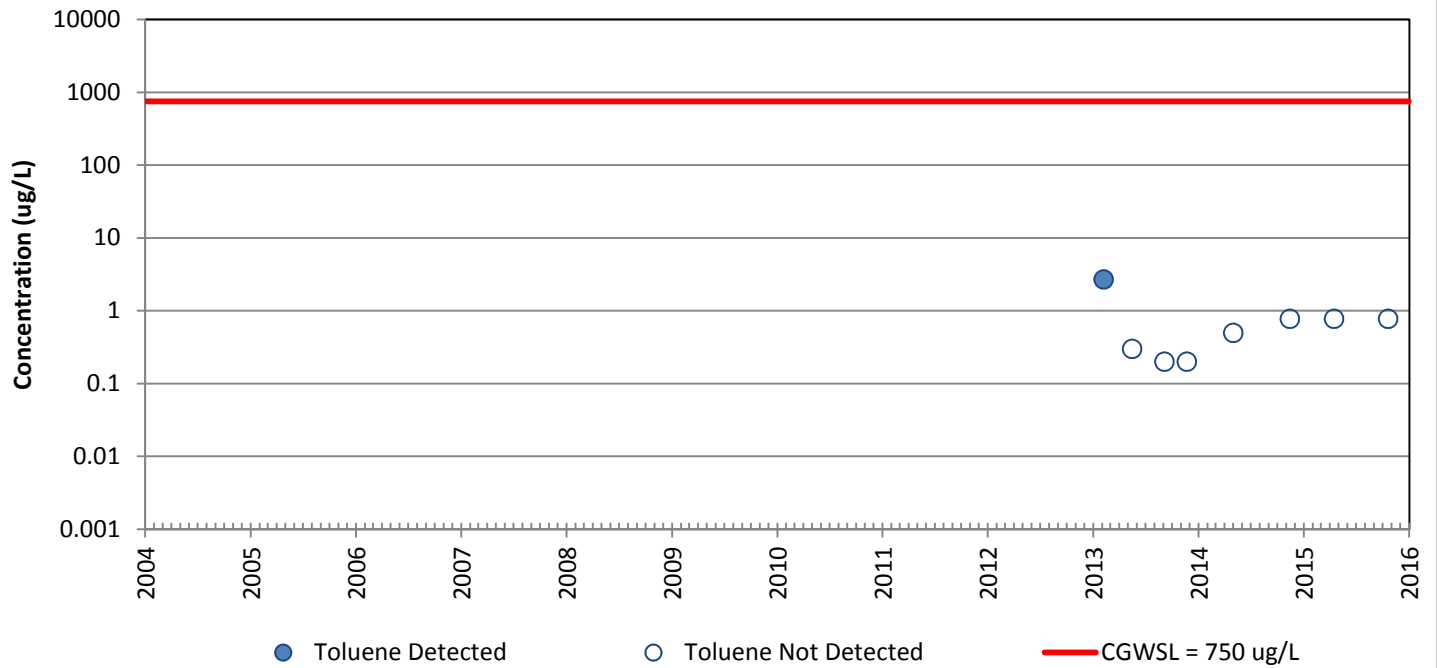


## Ethylbenzene

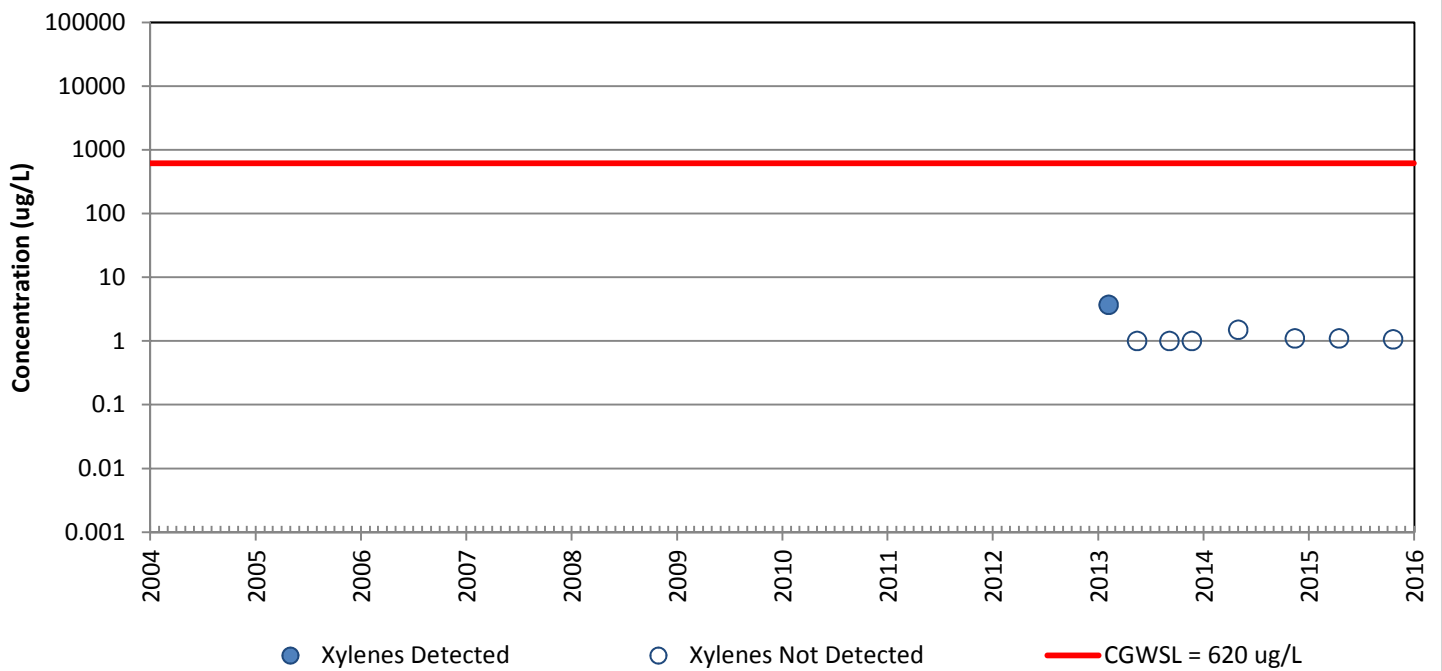


# MW-119

## Toluene

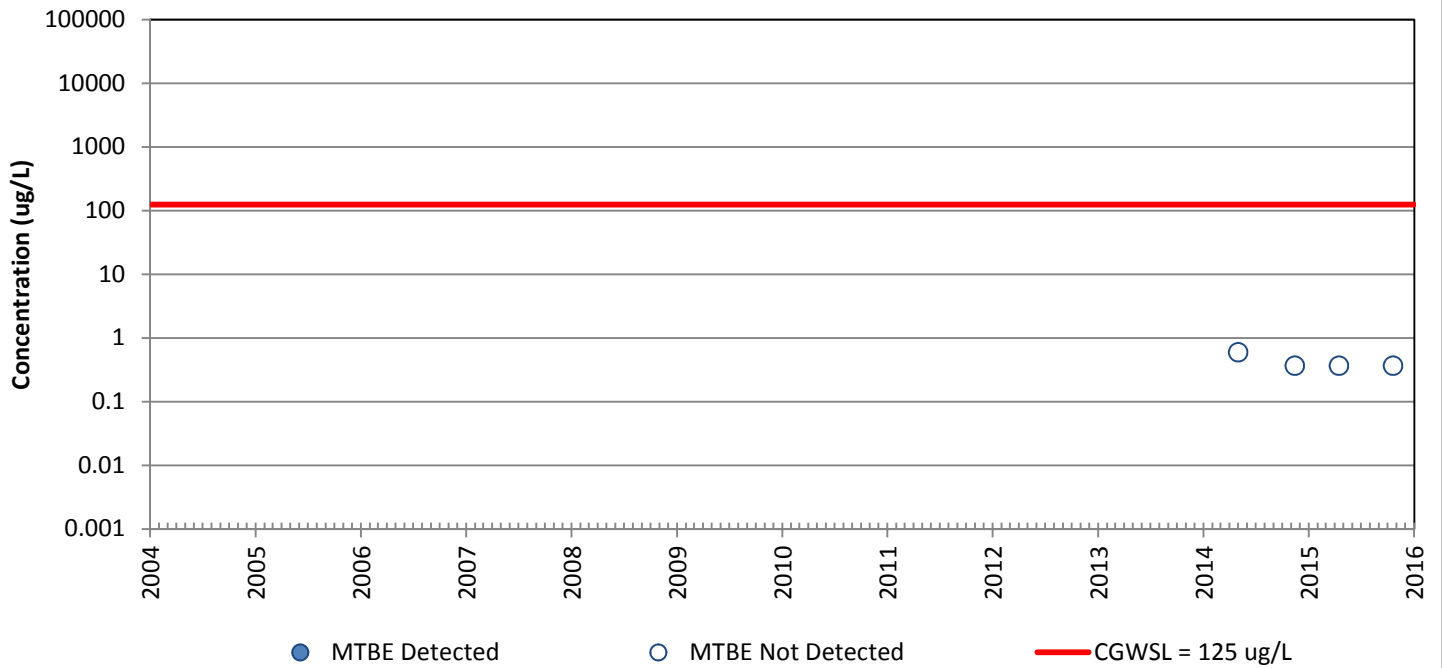


## Xylenes

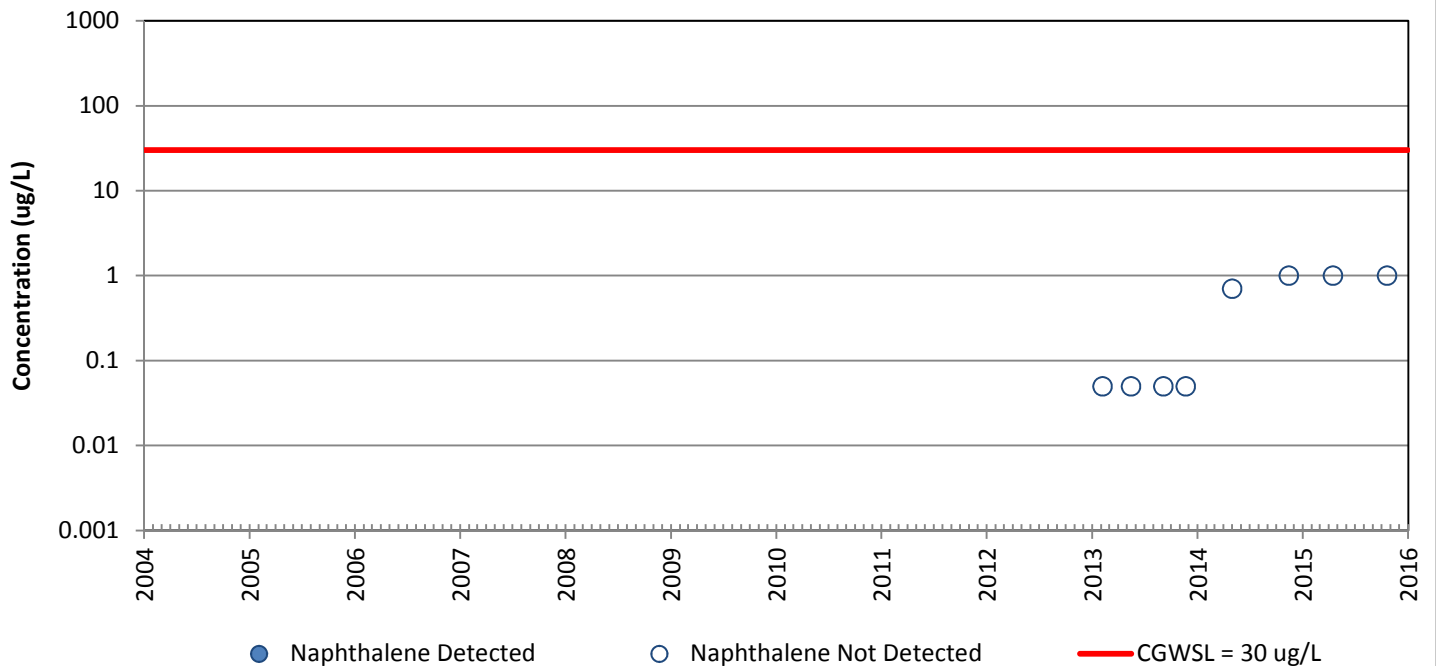


# MW-119

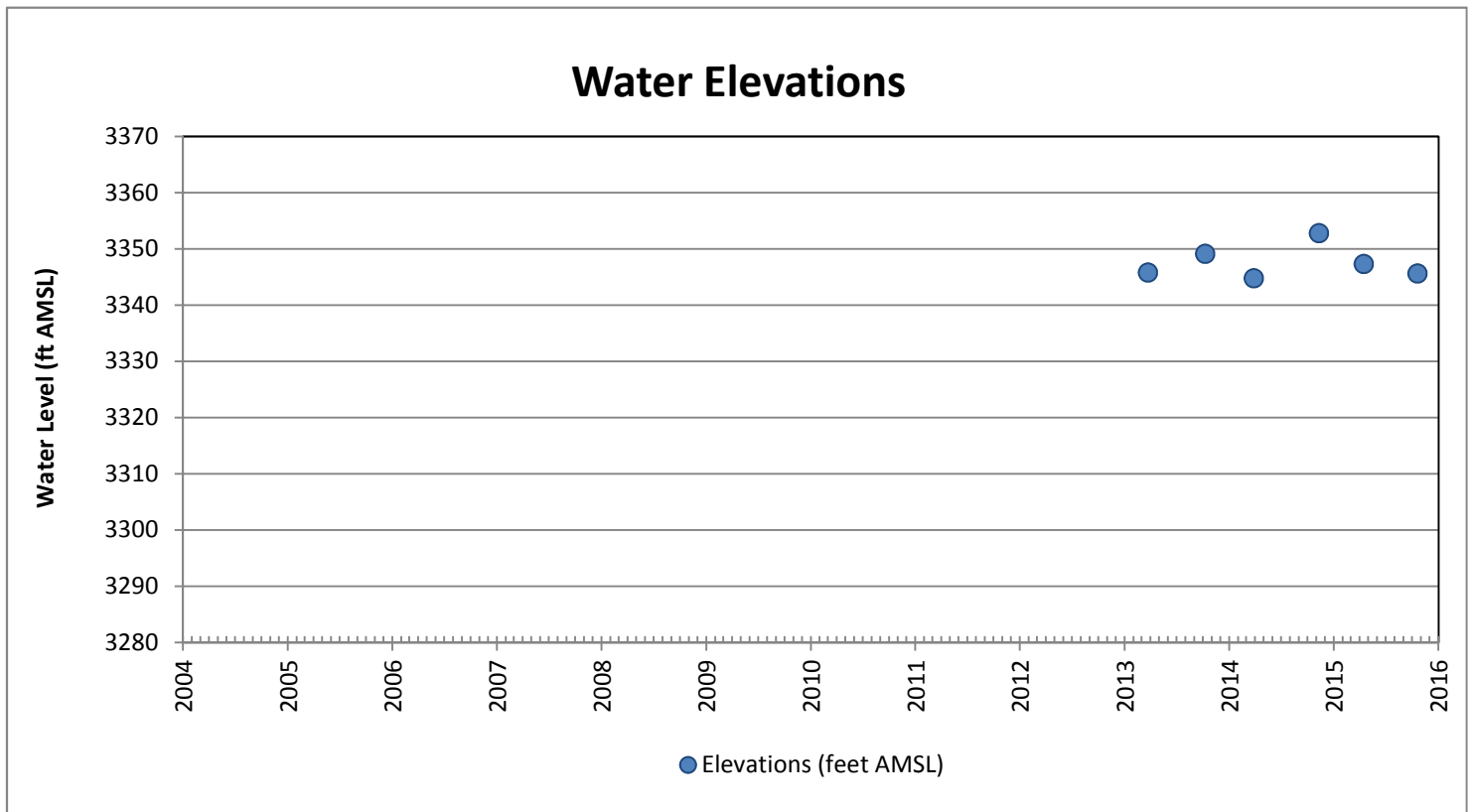
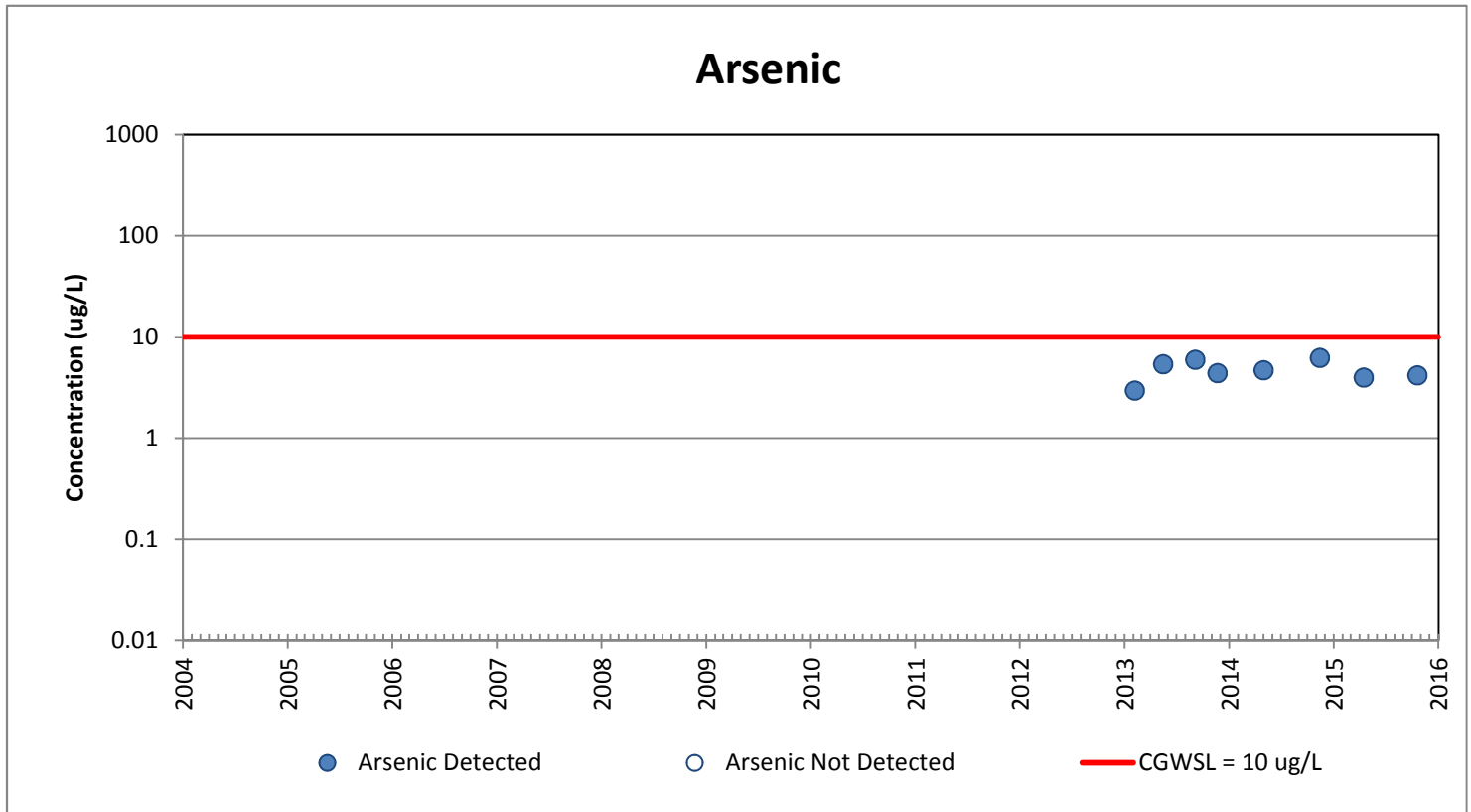
## MTBE



## Naphthalene

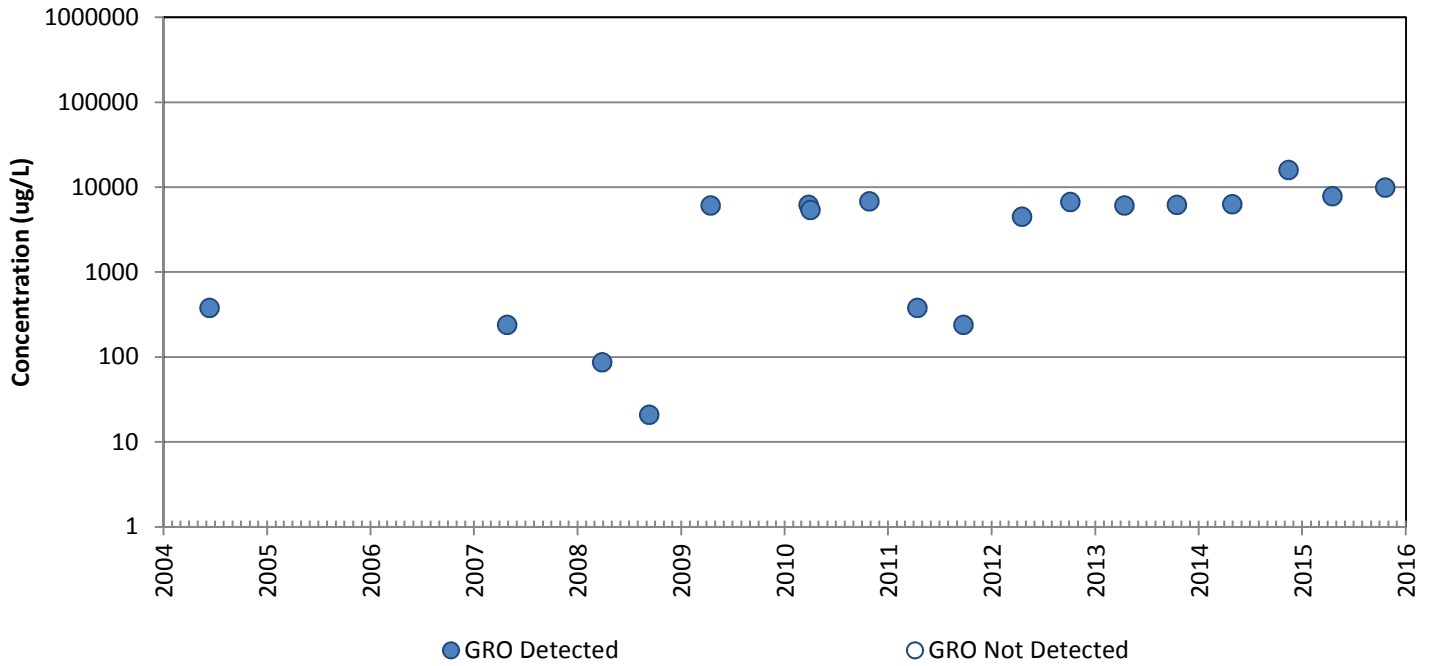


# MW-119

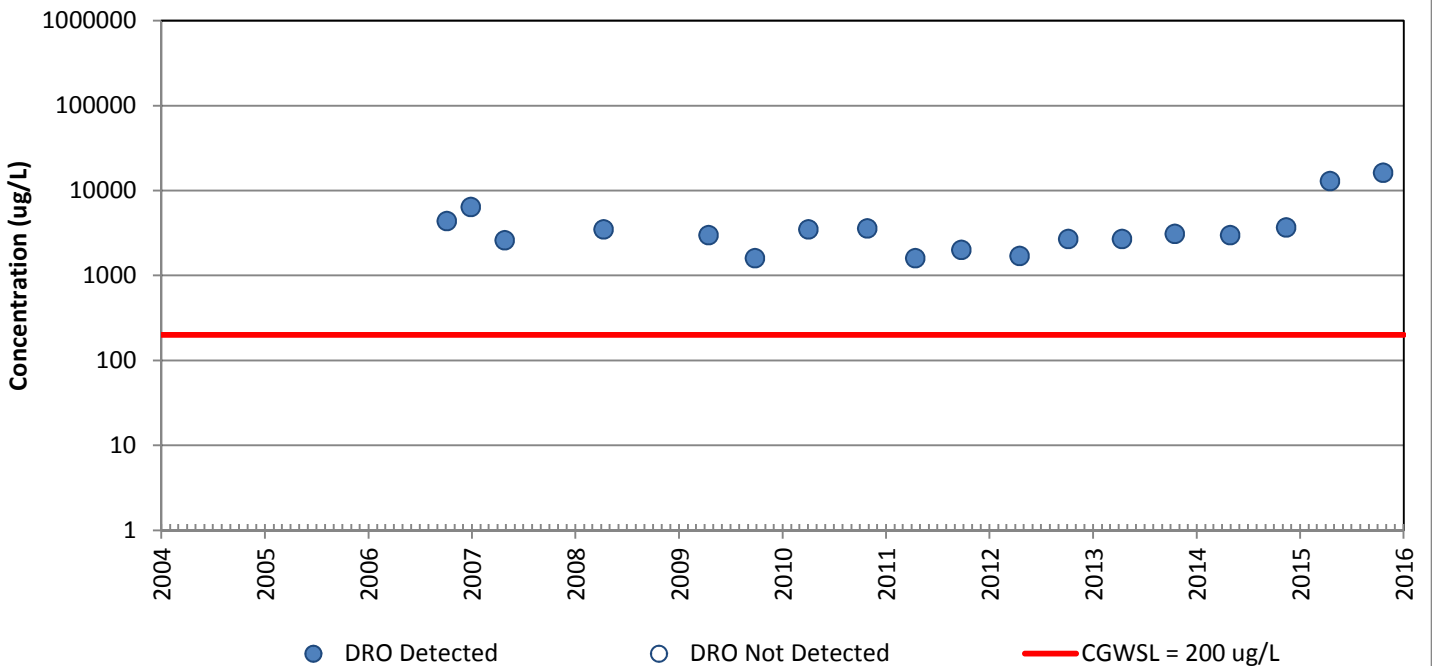


# MW-28

## GRO

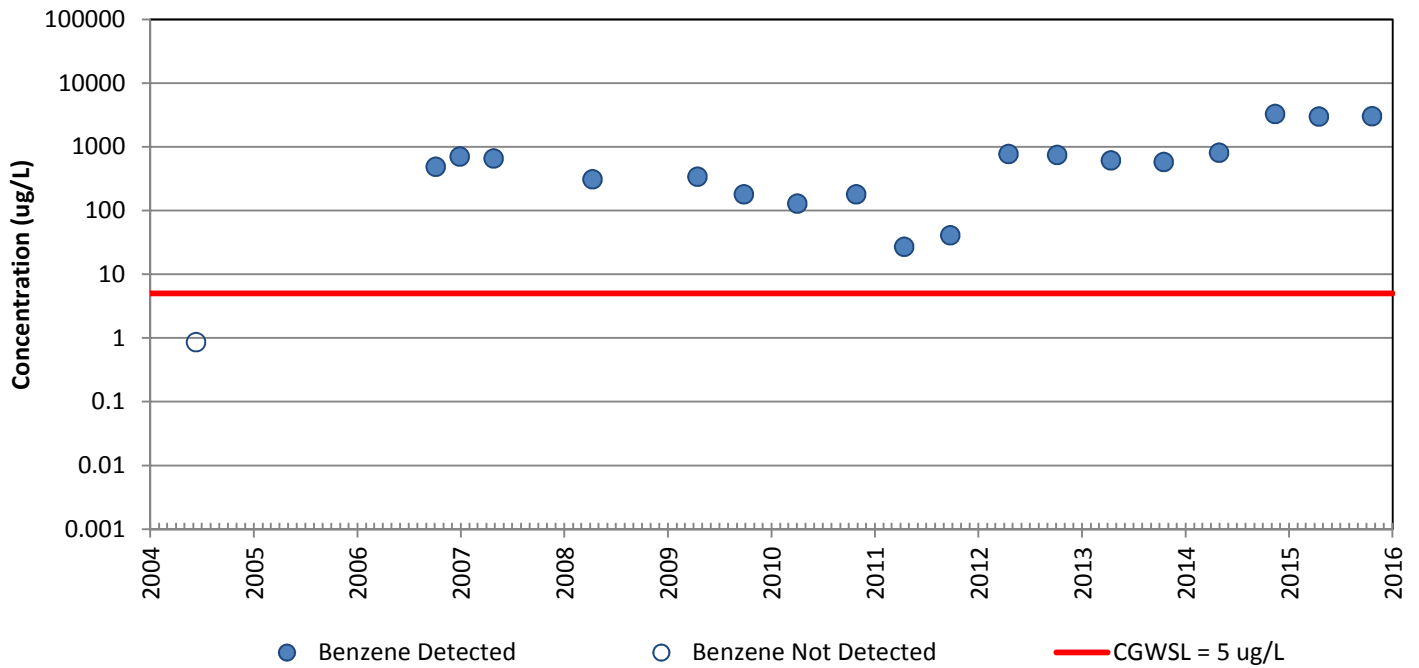


## DRO

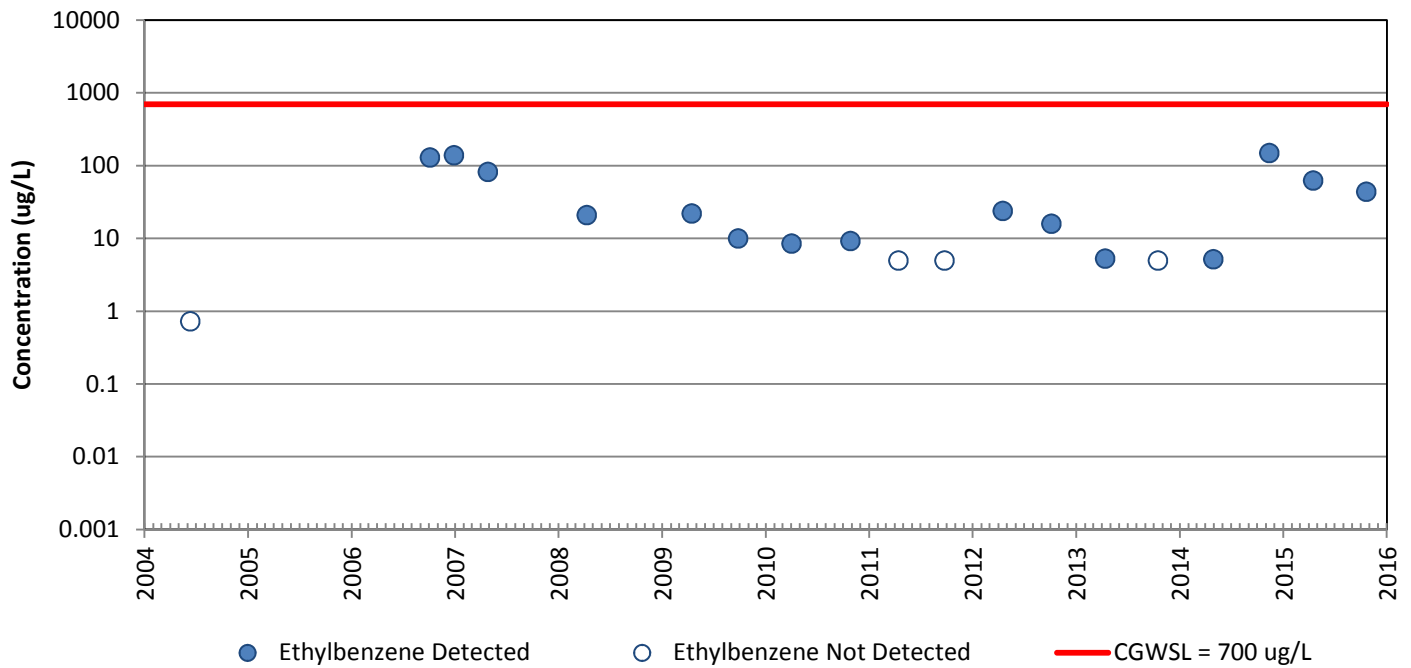


# MW-28

## Benzene

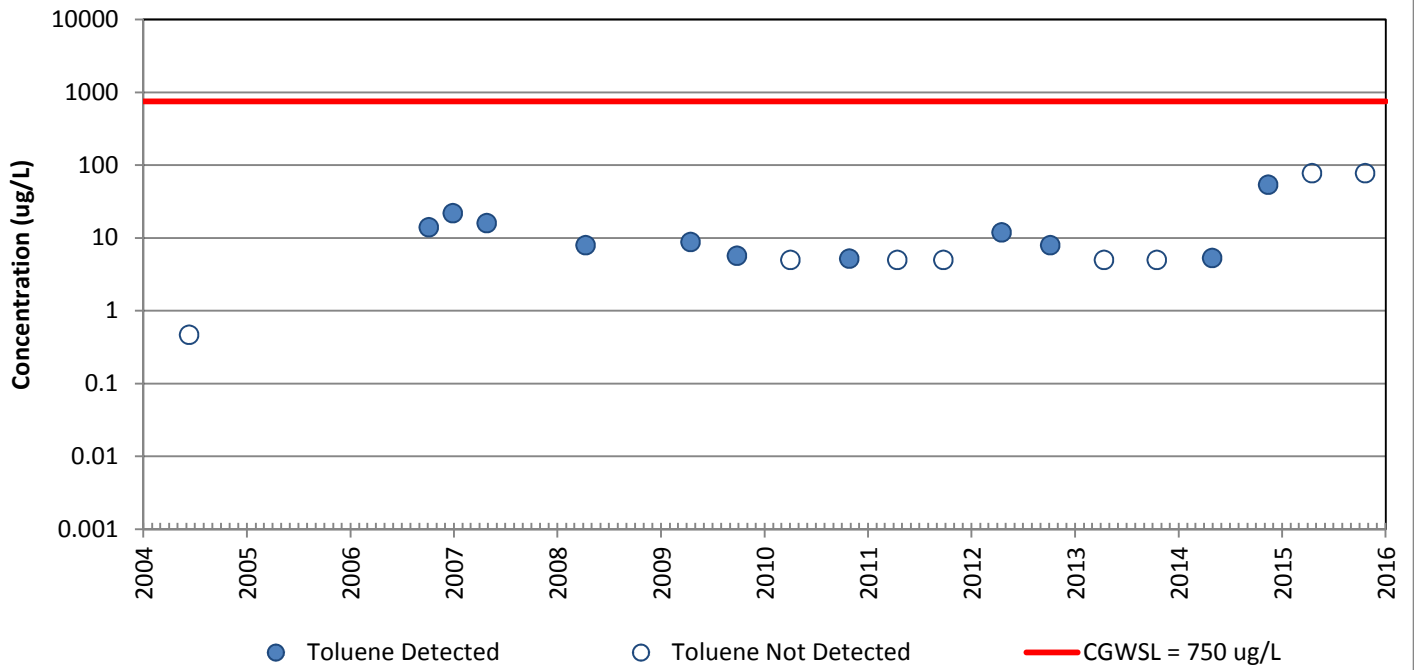


## Ethylbenzene

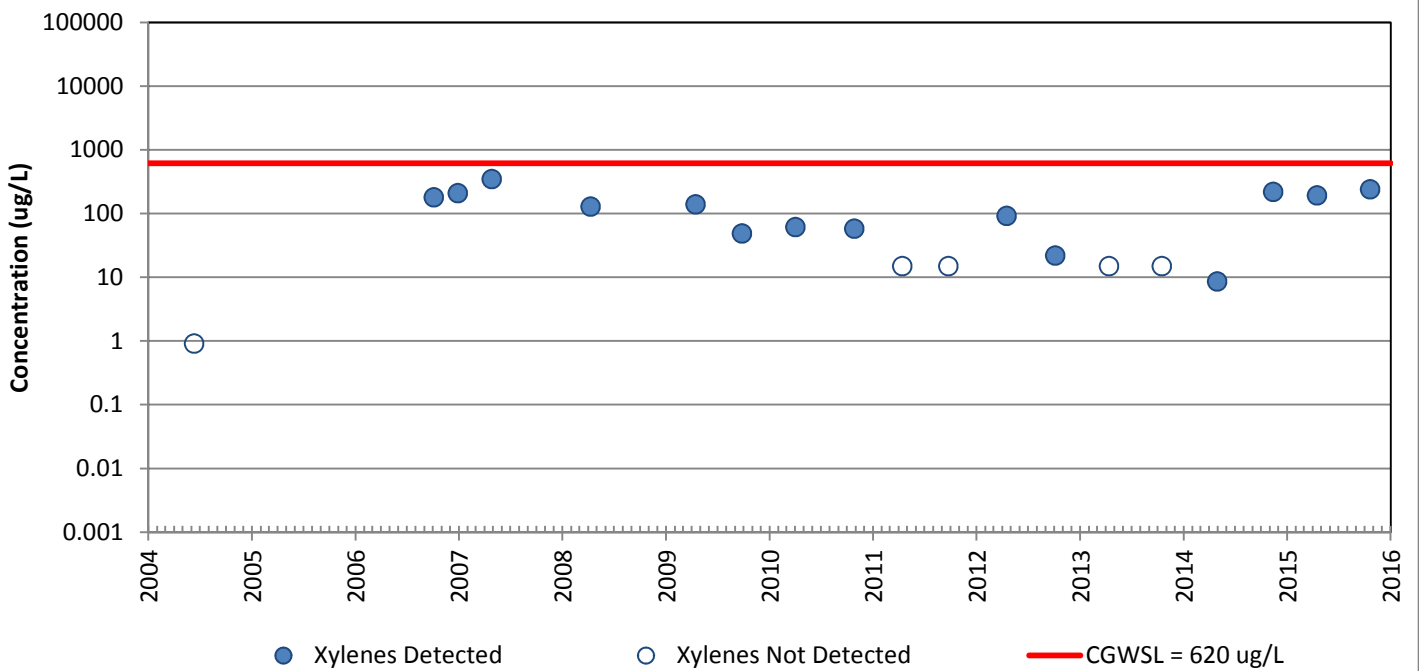


# MW-28

## Toluene

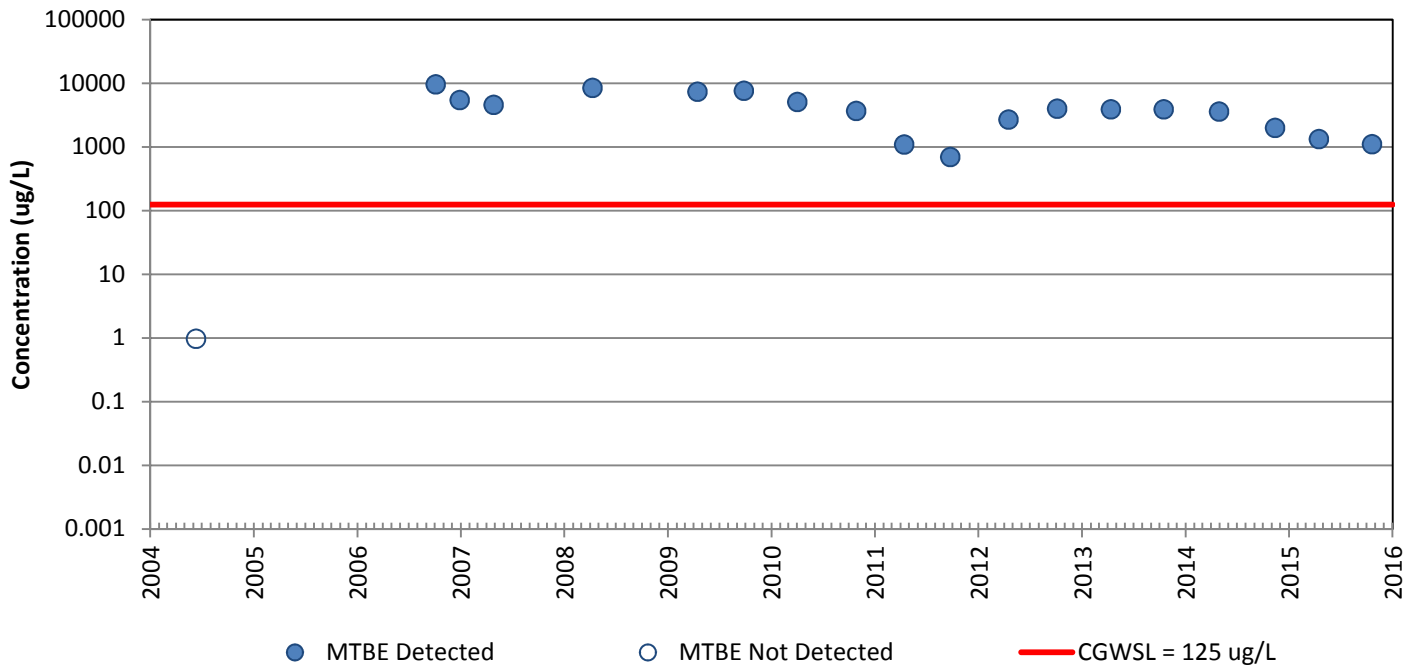


## Xylenes

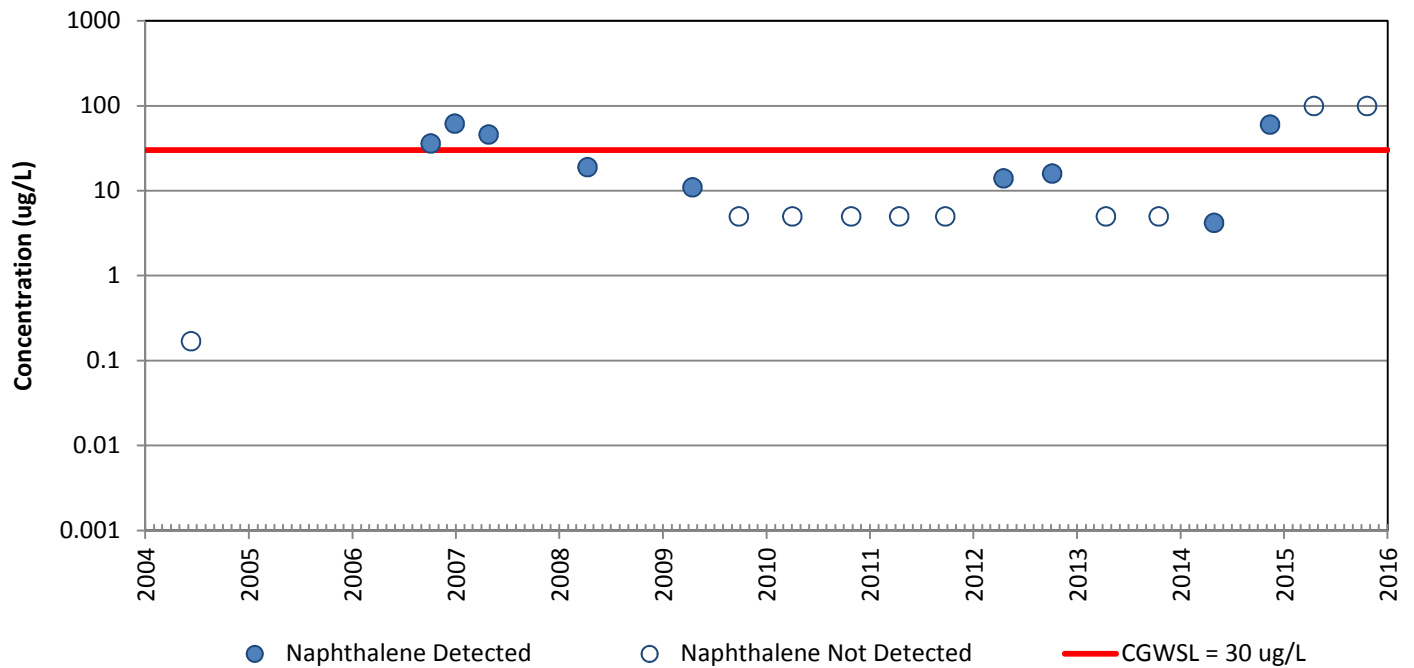


# MW-28

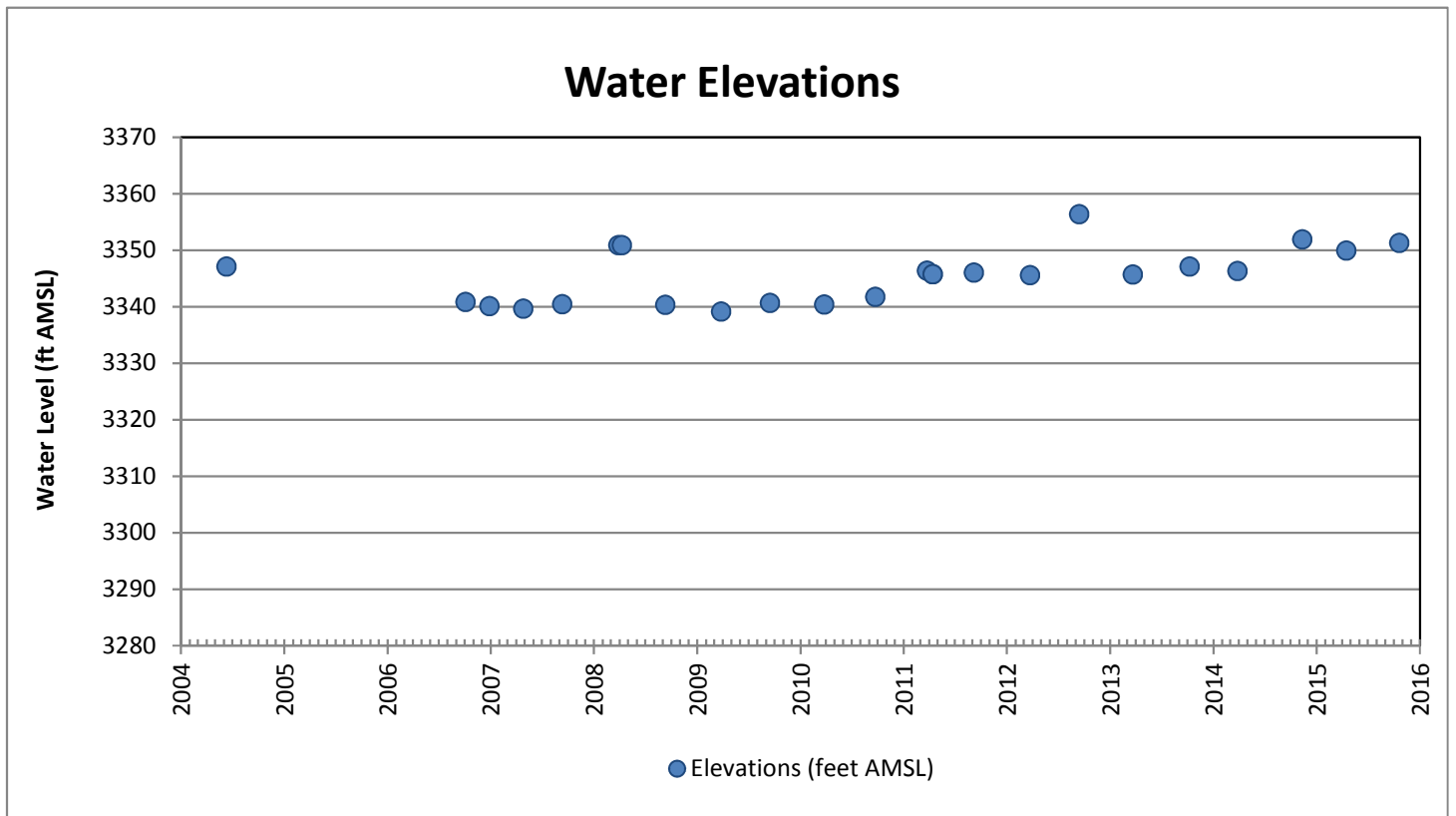
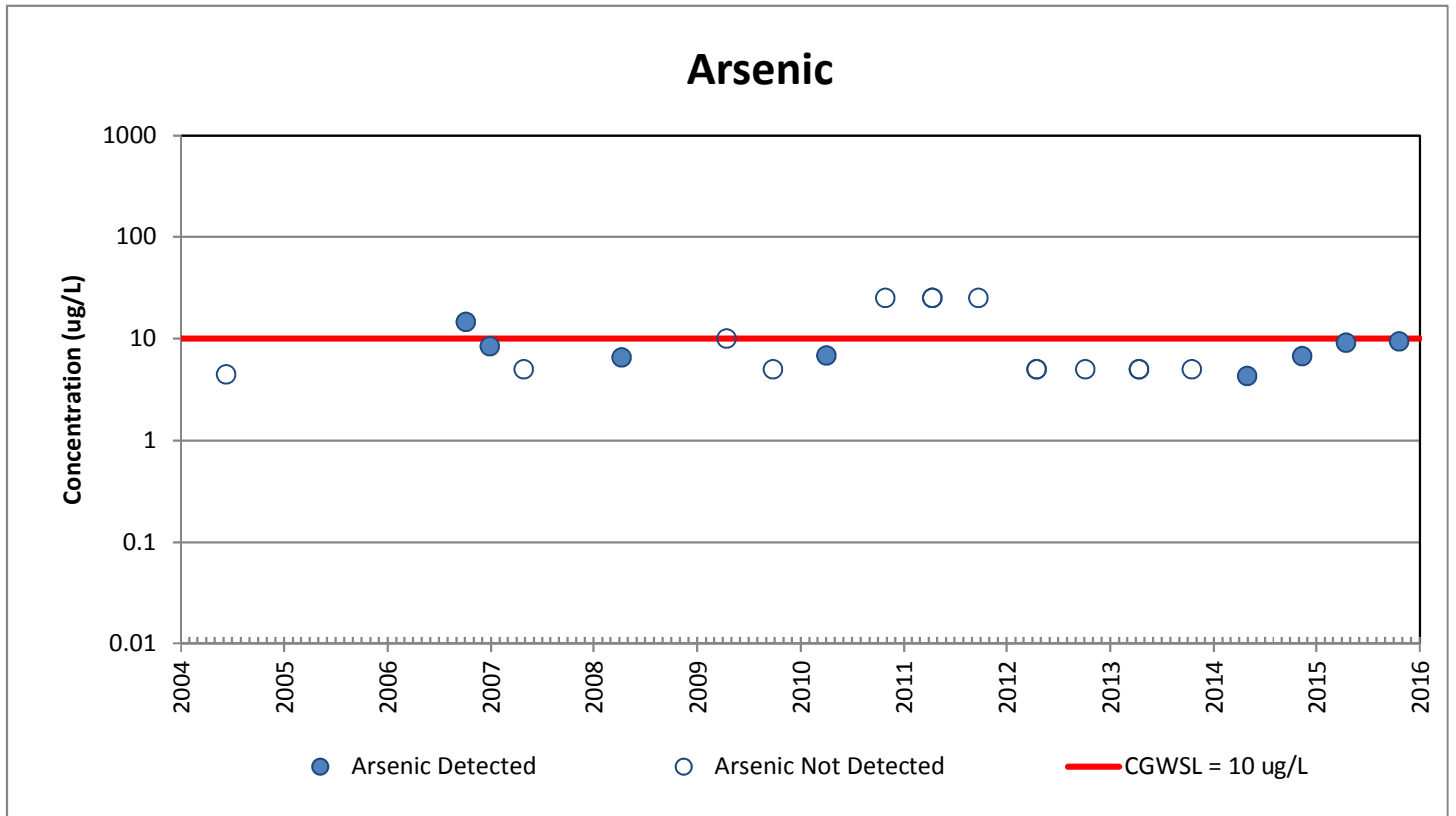
## MTBE



## Naphthalene

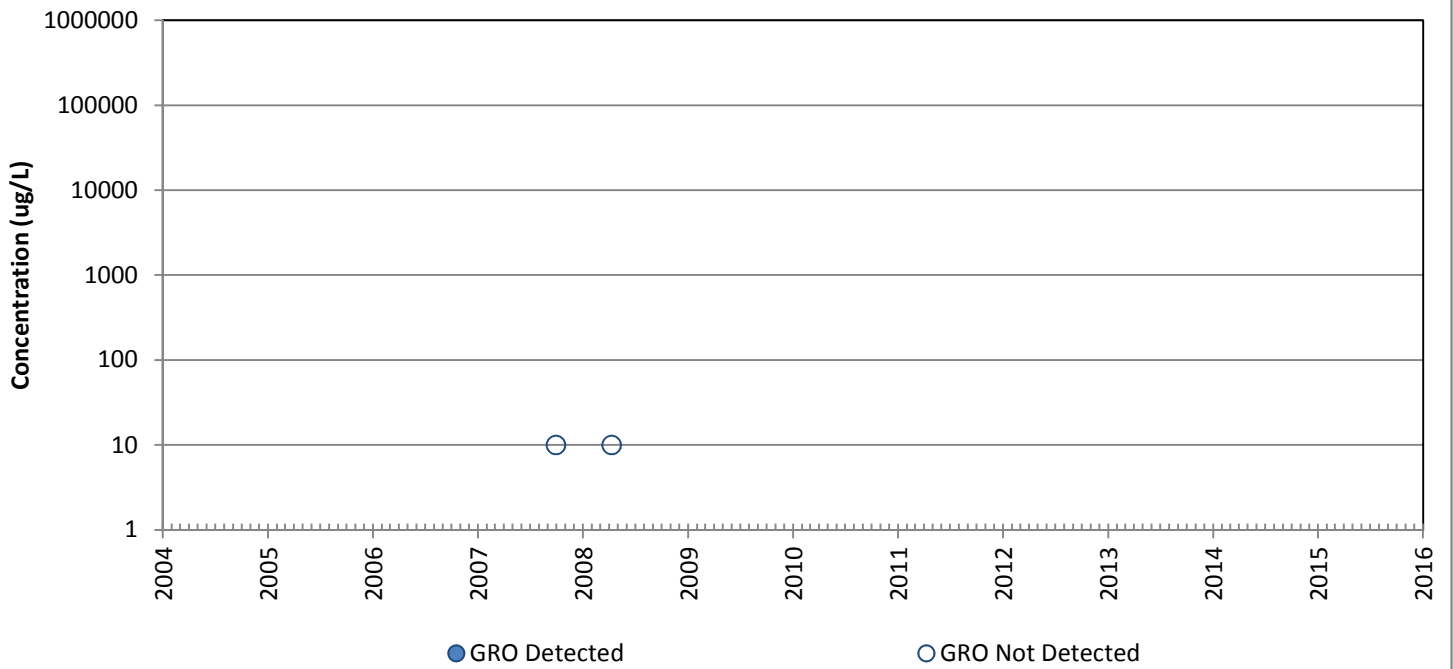


# MW-28

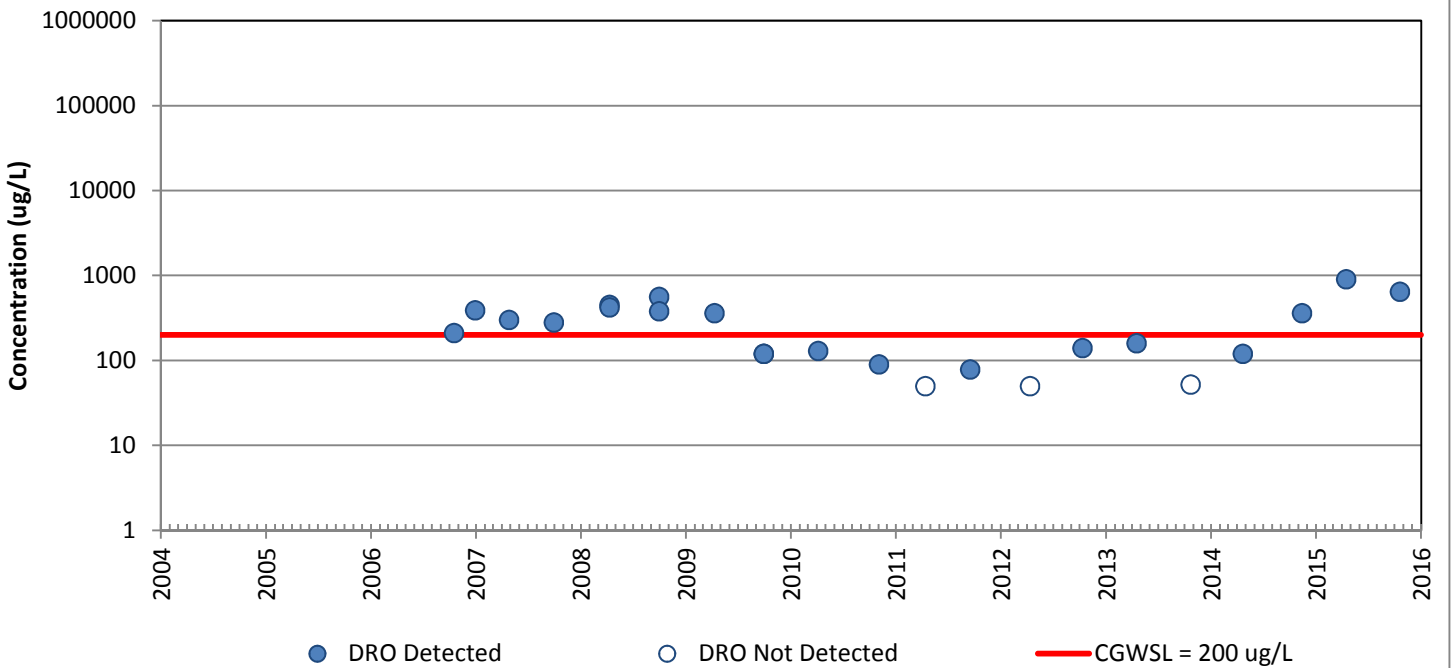


# MW-50

## GRO

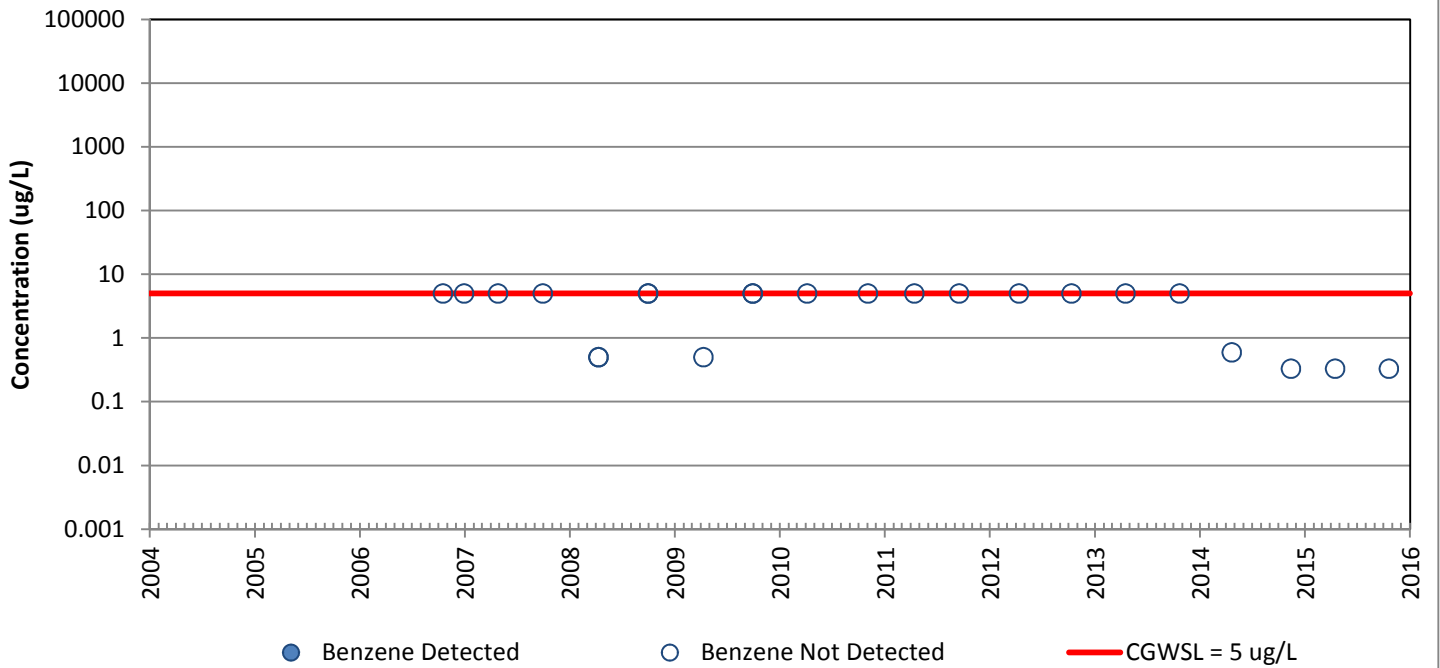


## DRO

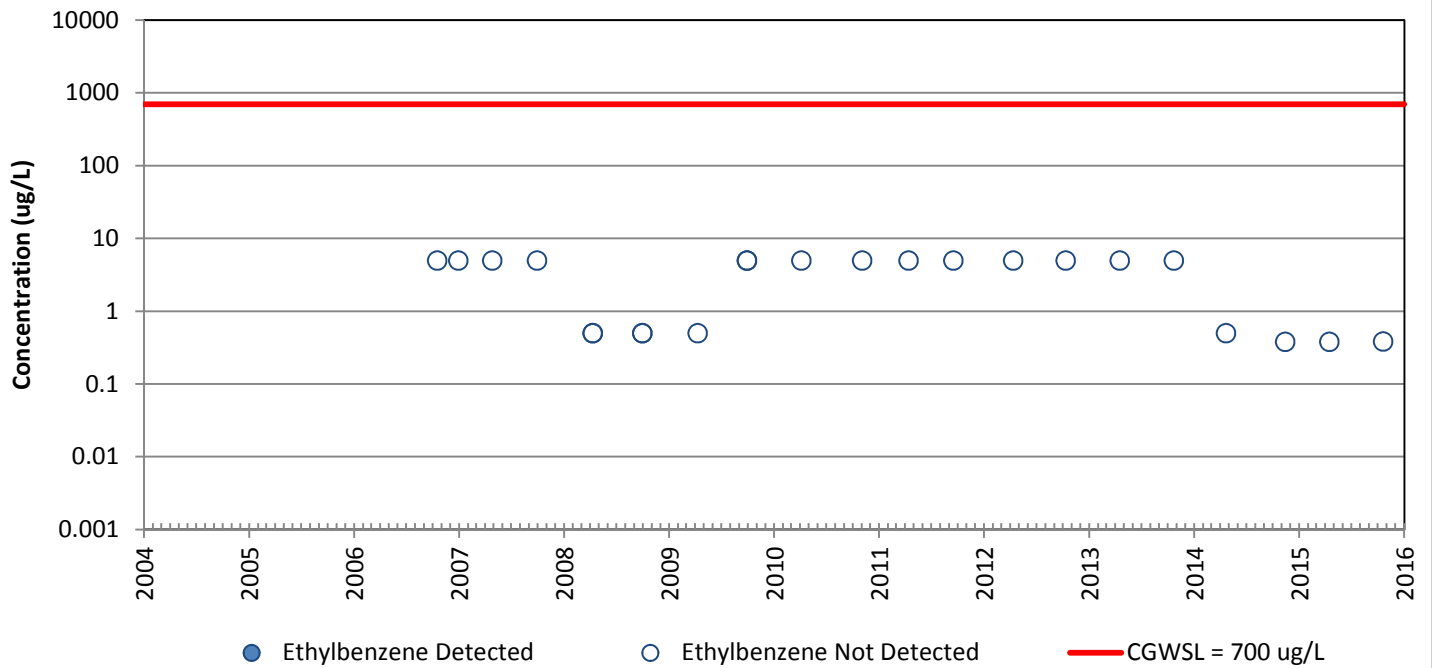


# MW-50

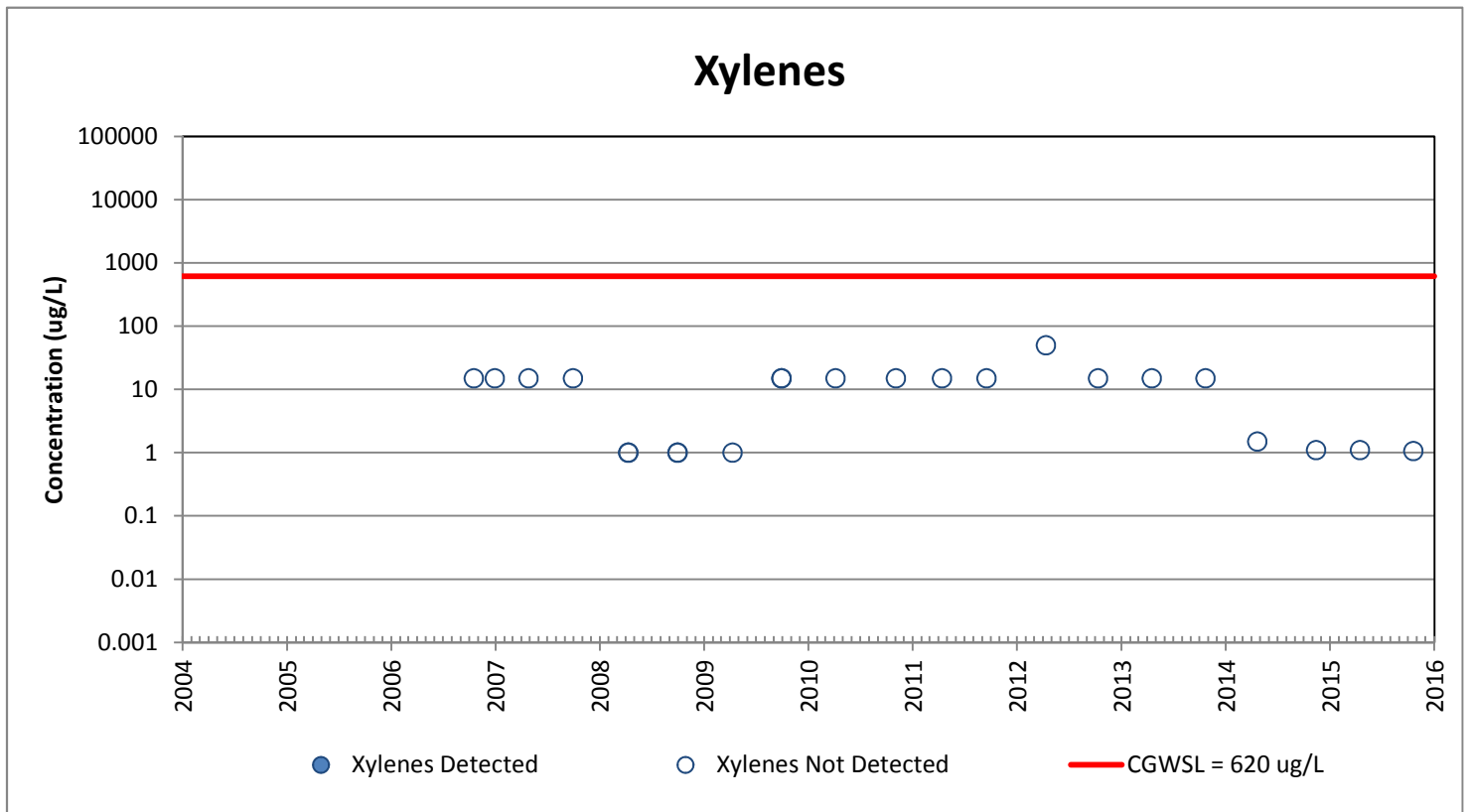
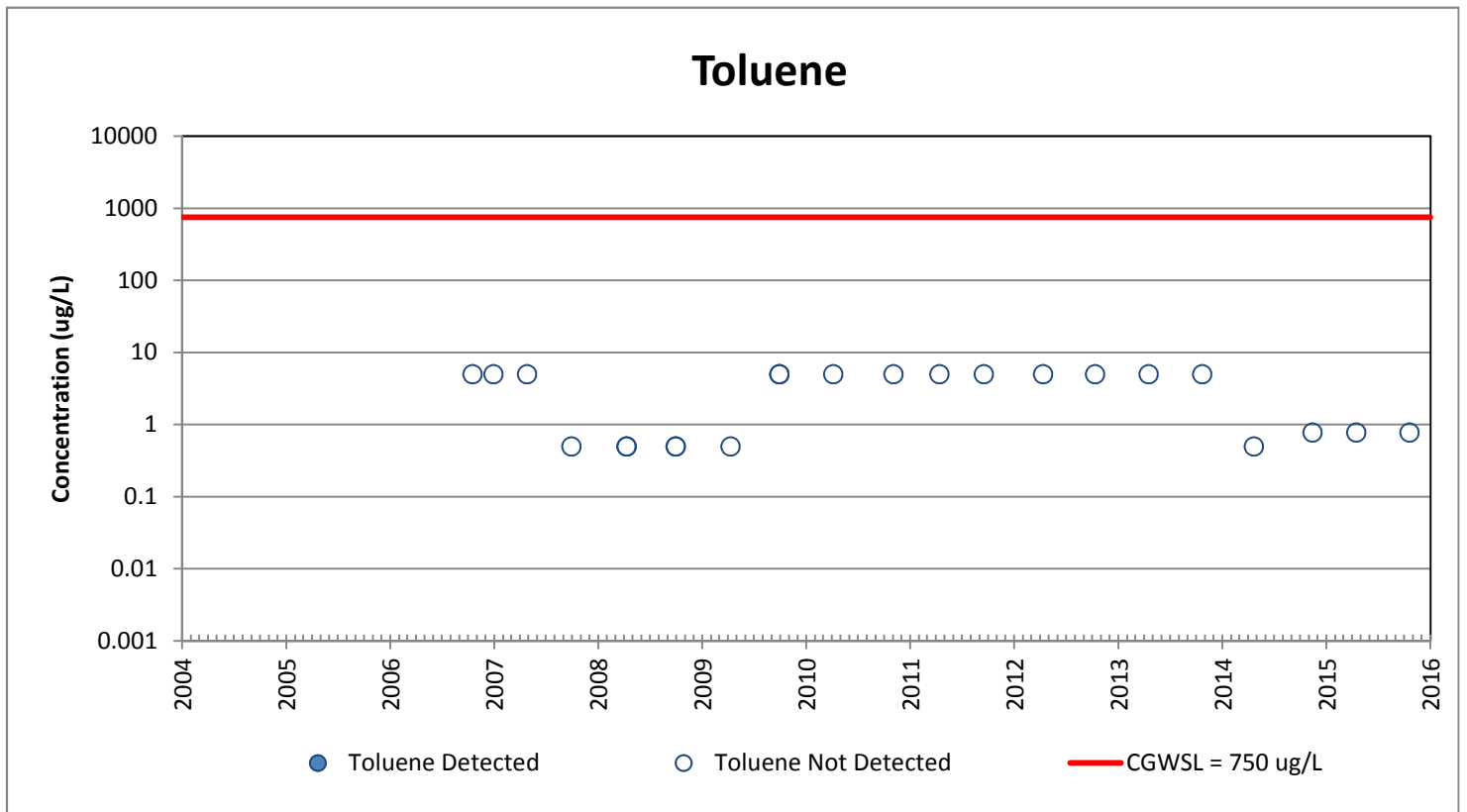
## Benzene



## Ethylbenzene

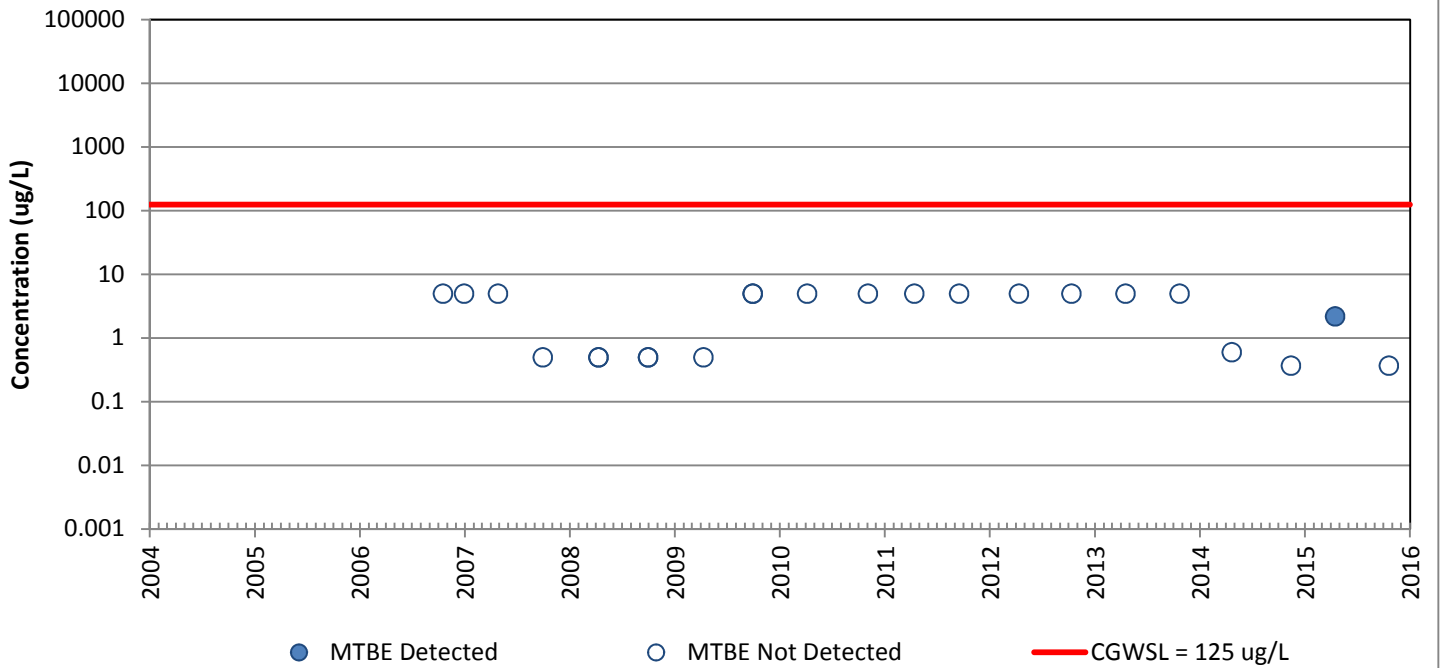


# MW-50

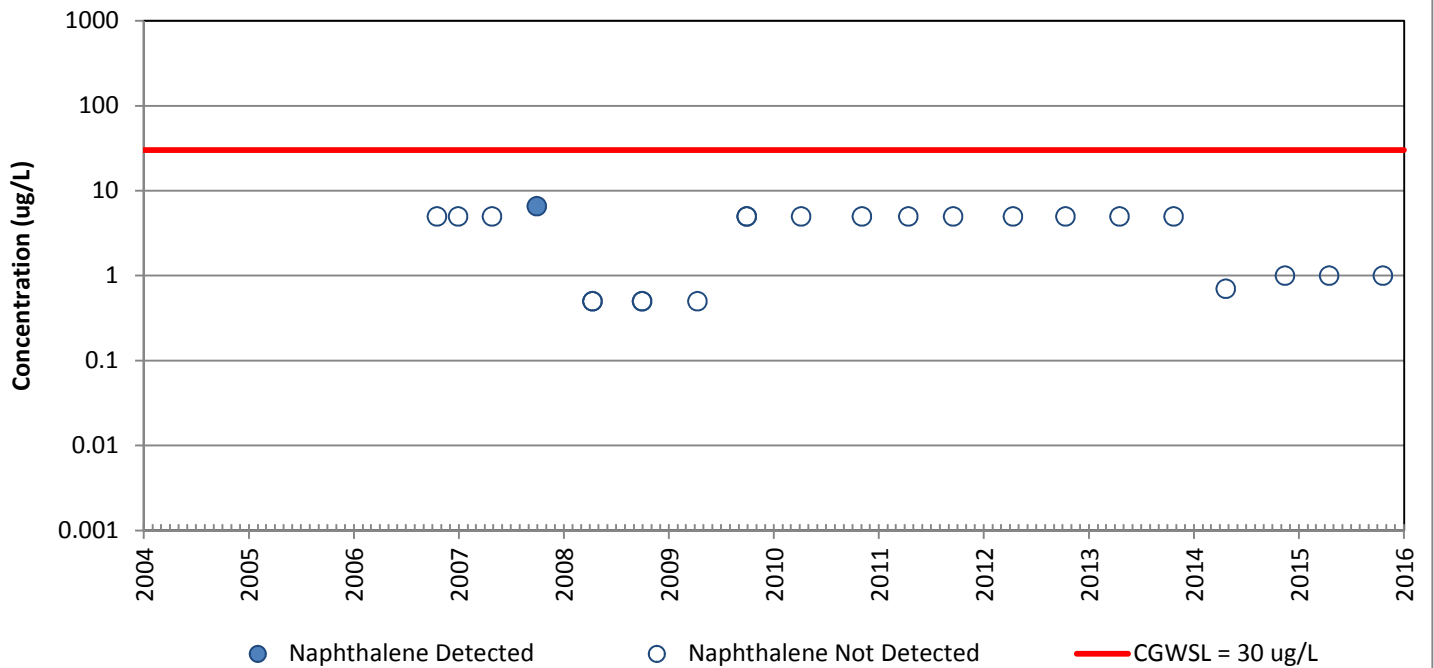


# MW-50

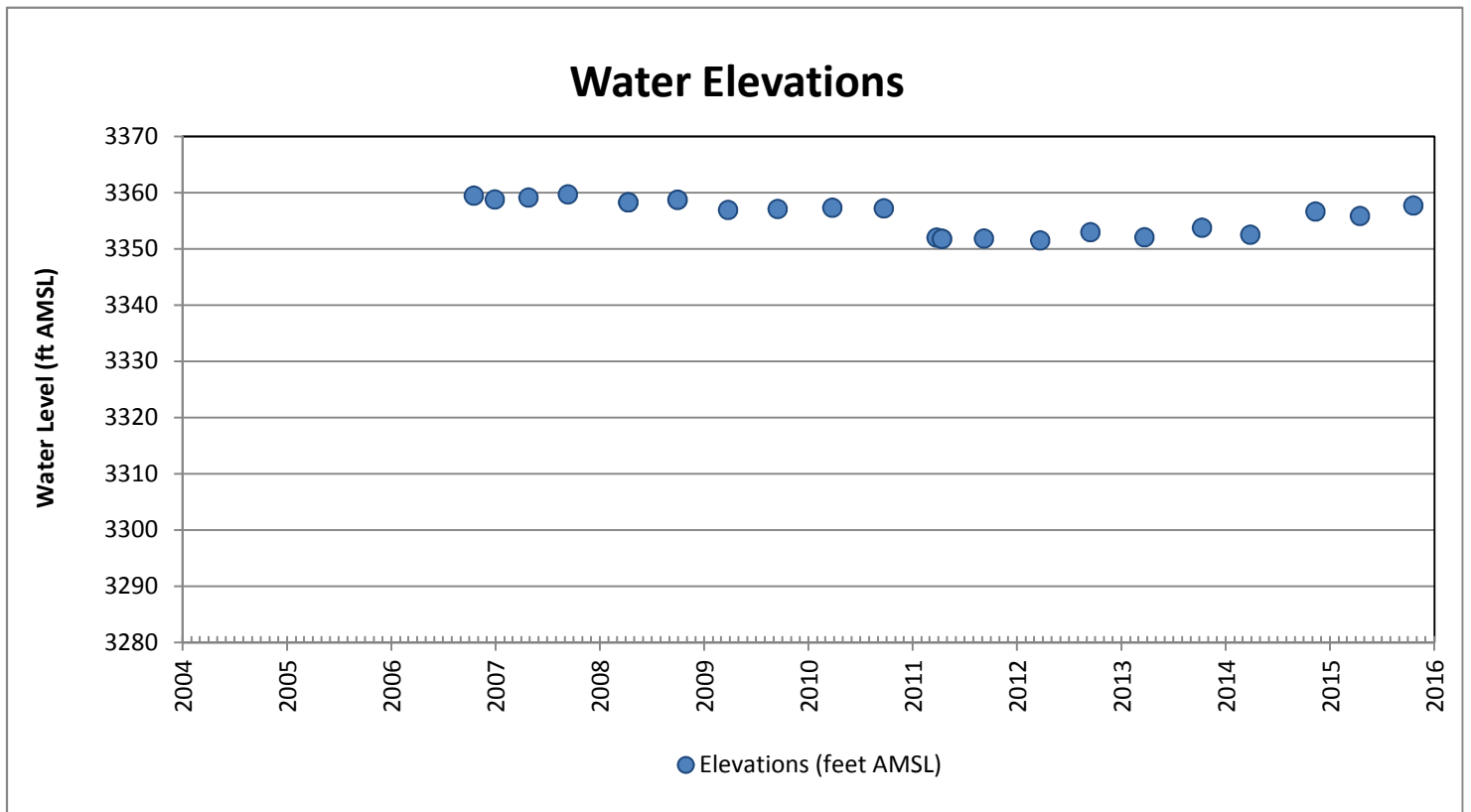
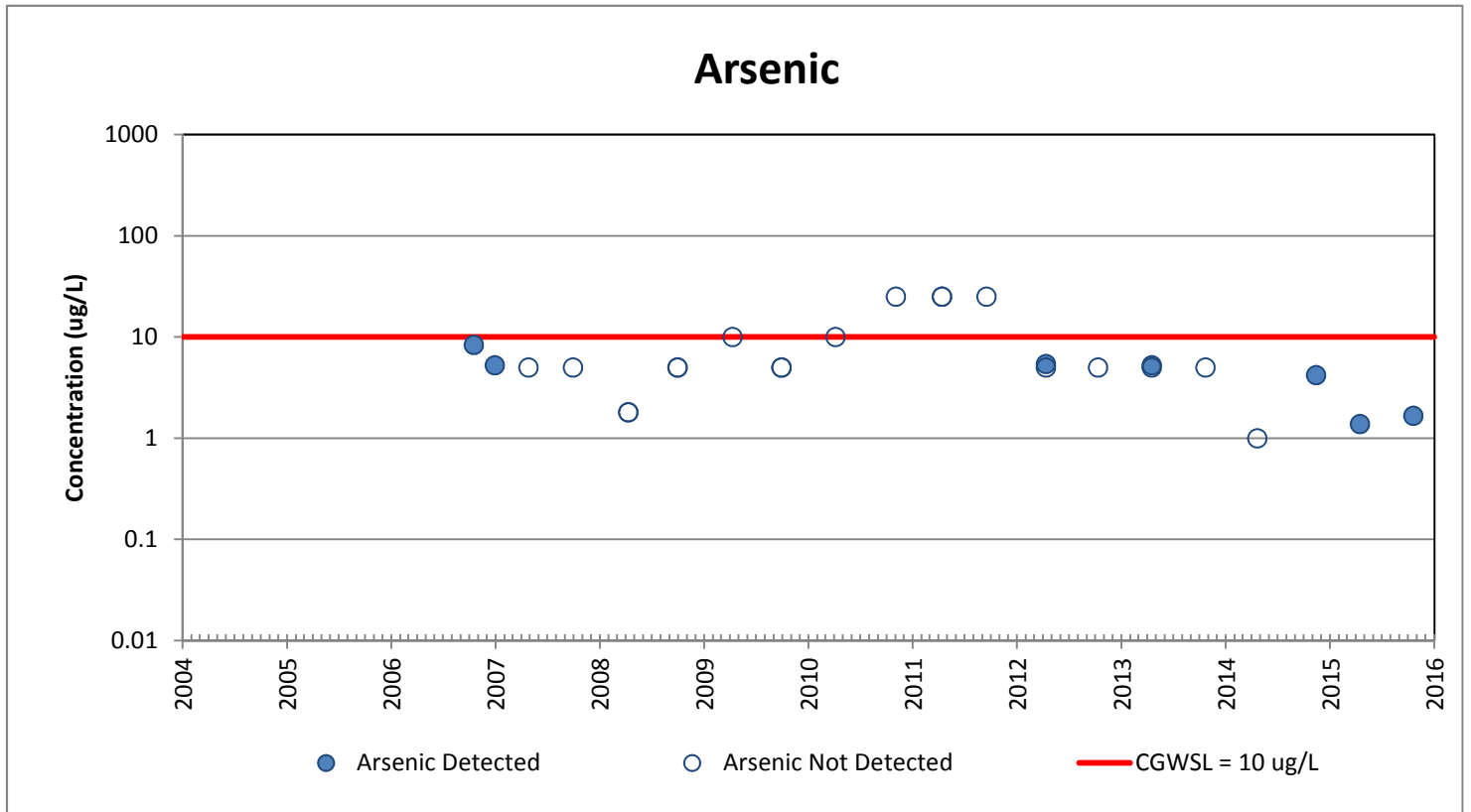
## MTBE



## Naphthalene

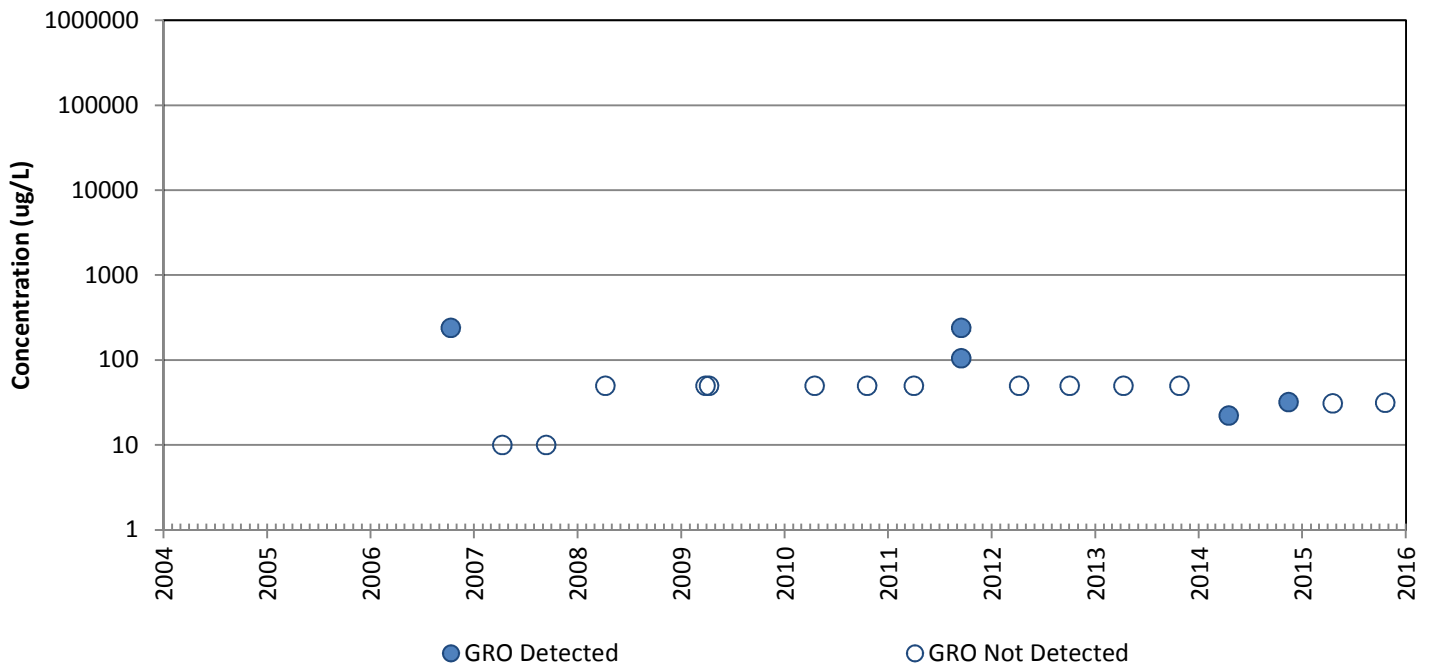


# MW-50

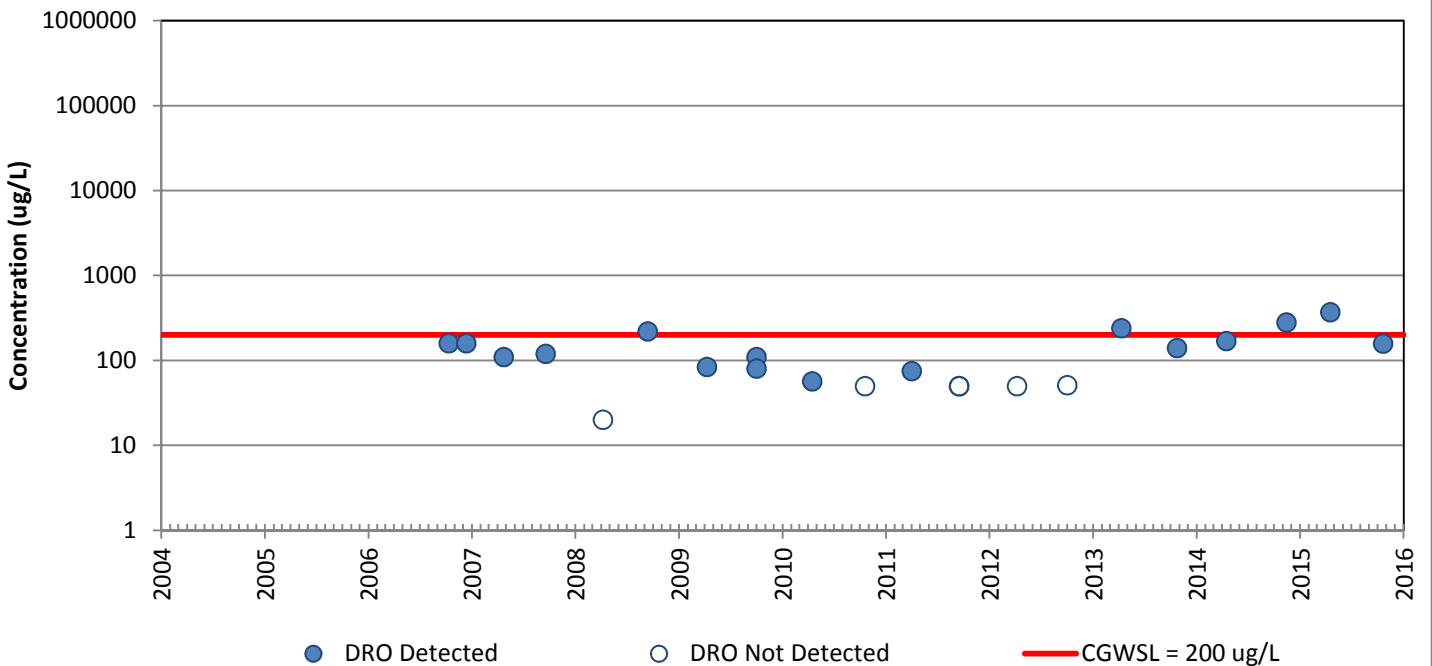


# MW-52

## GRO

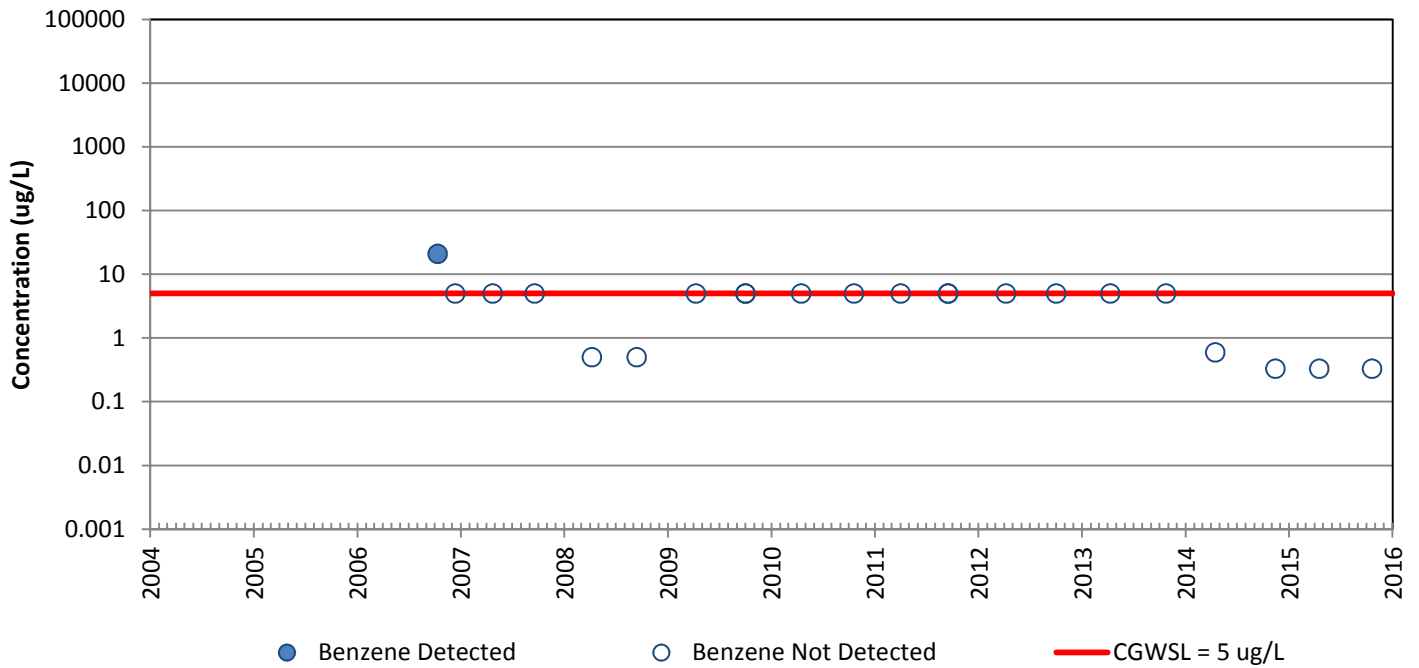


## DRO

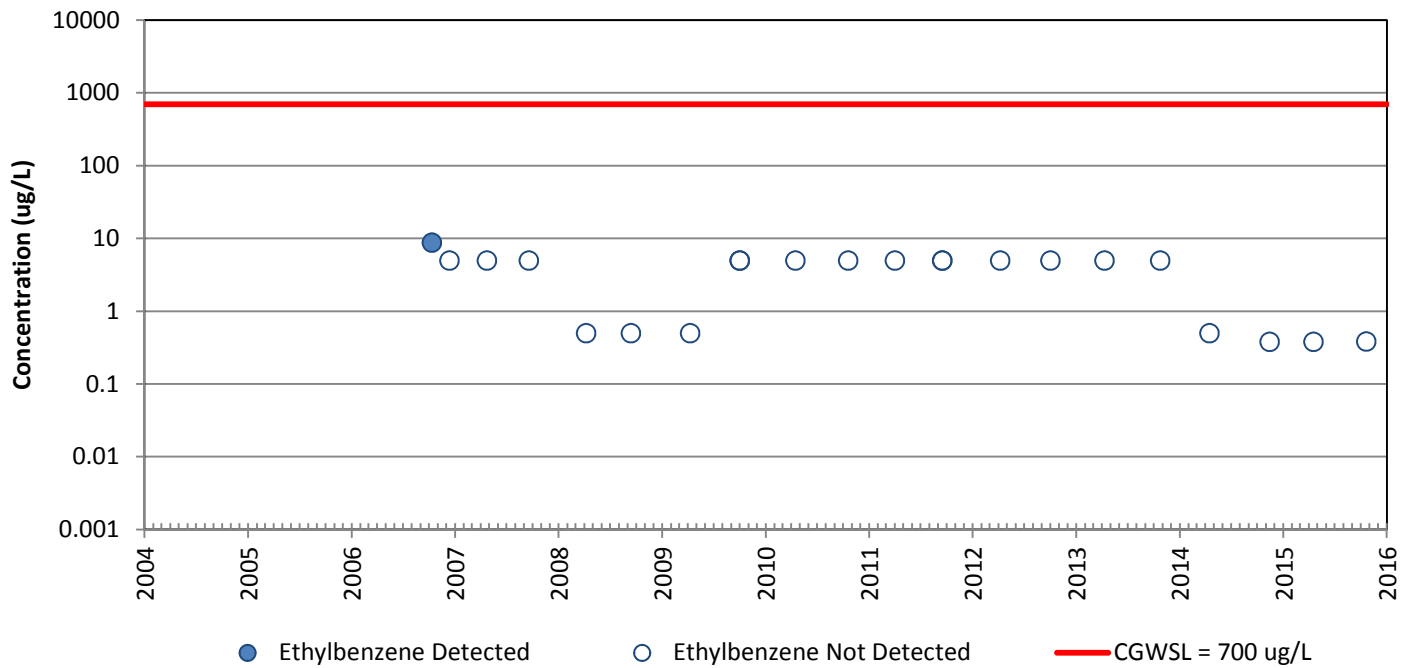


# MW-52

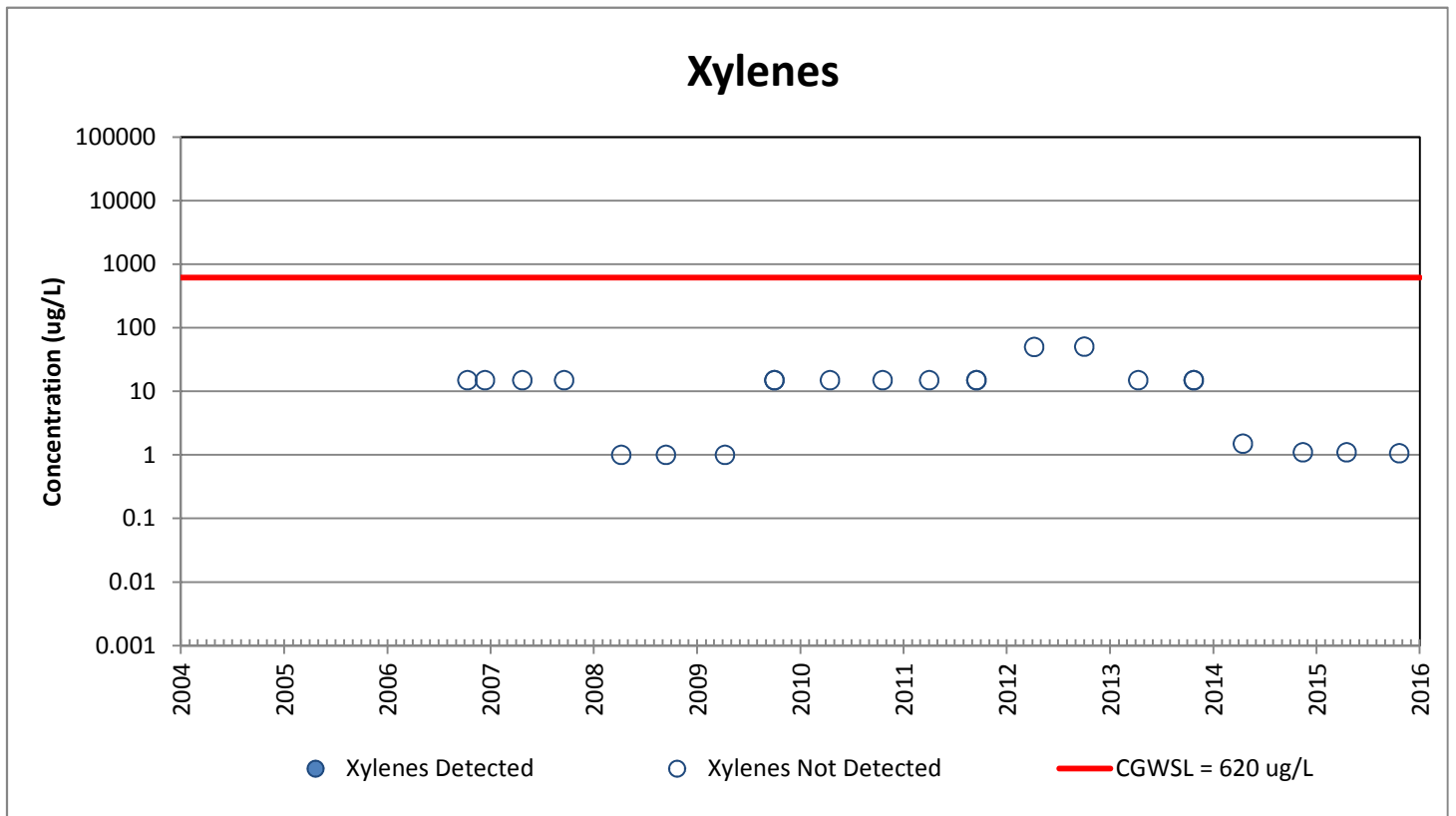
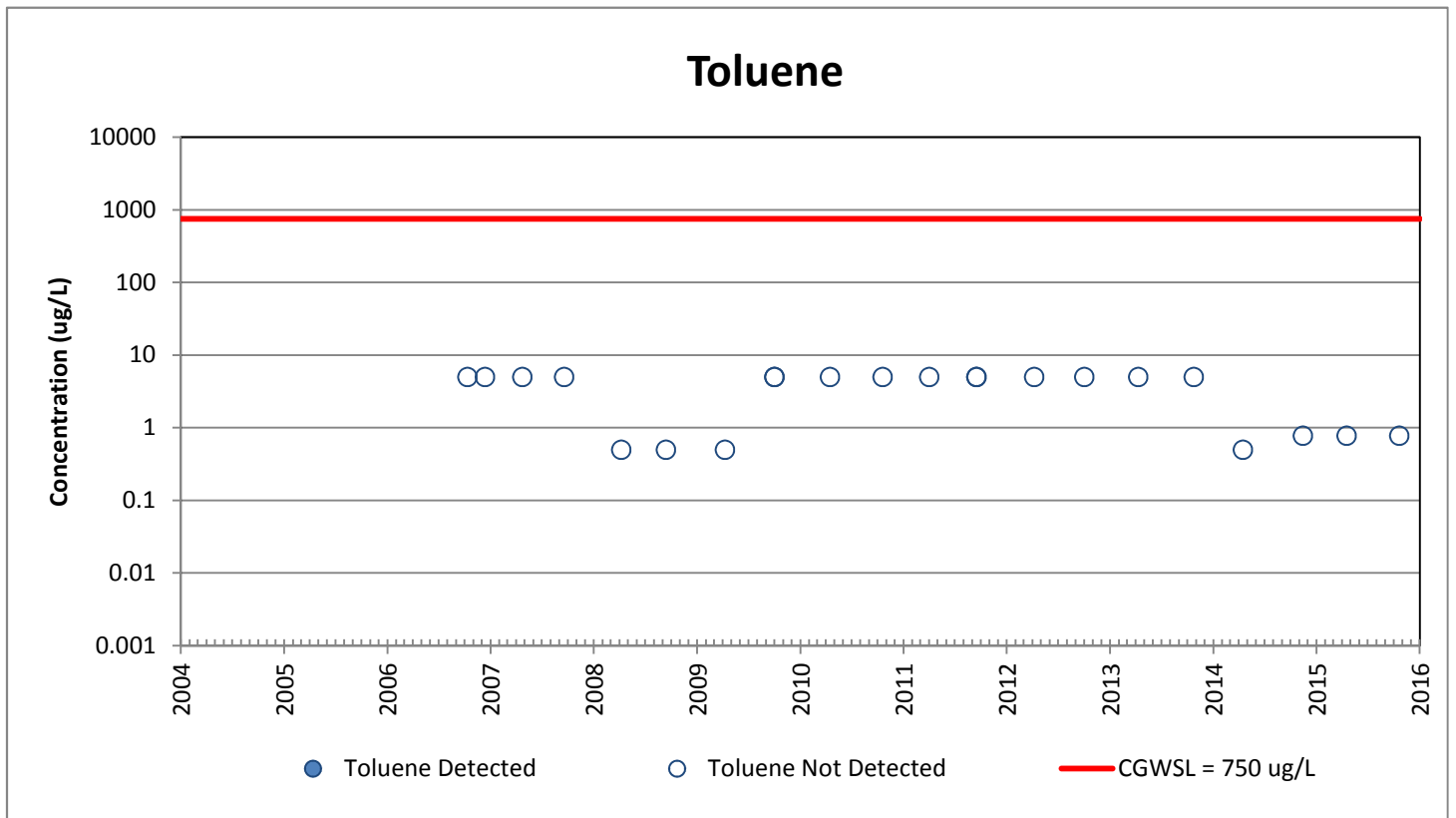
## Benzene



## Ethylbenzene

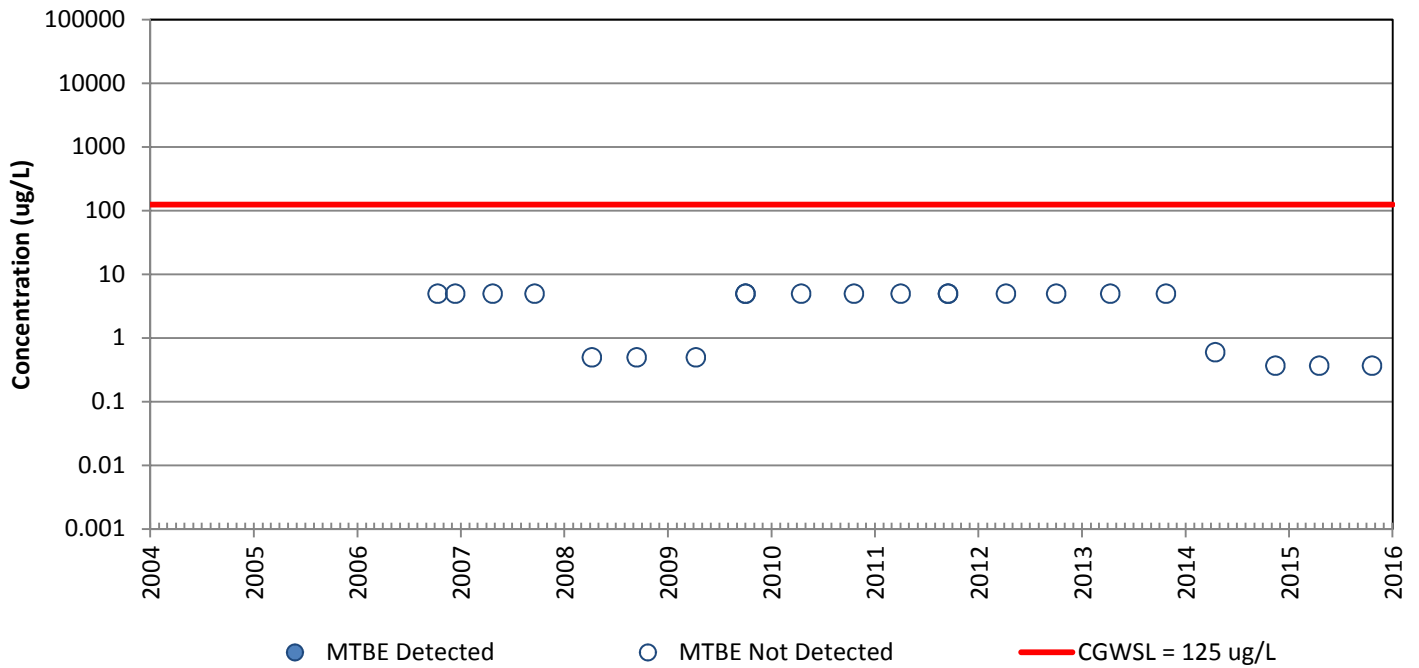


# MW-52

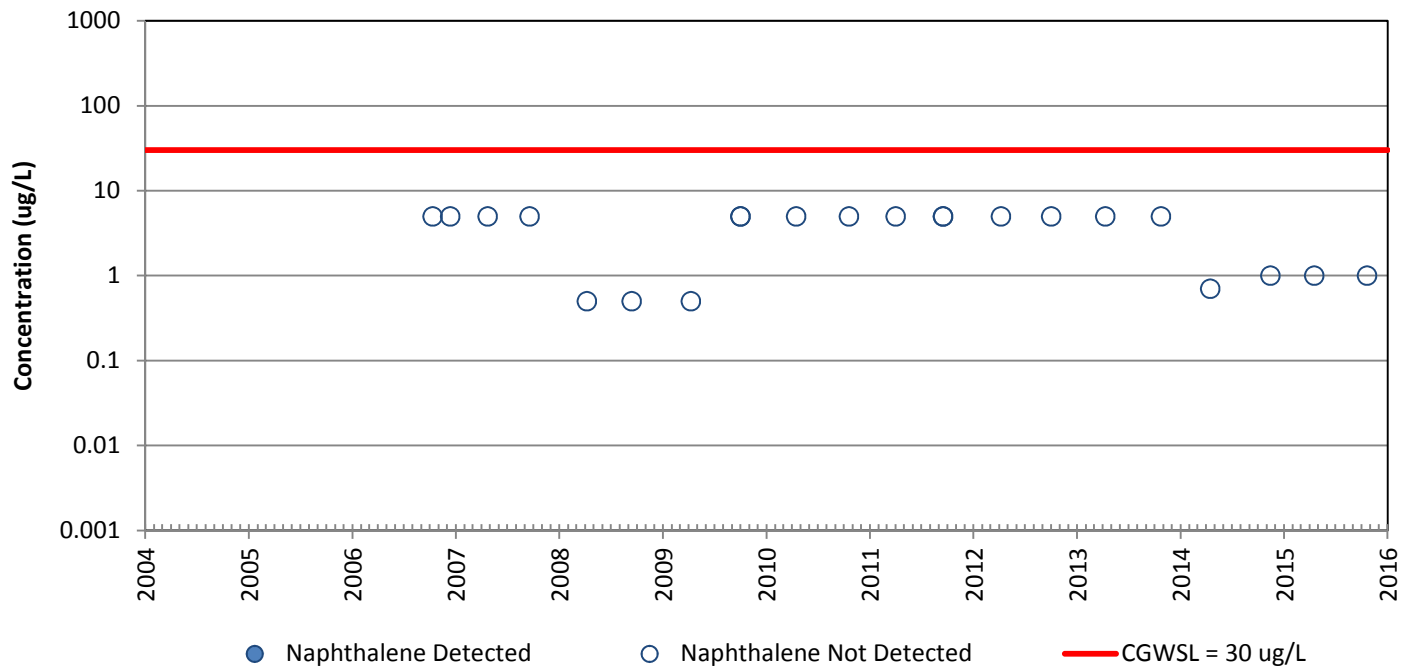


# MW-52

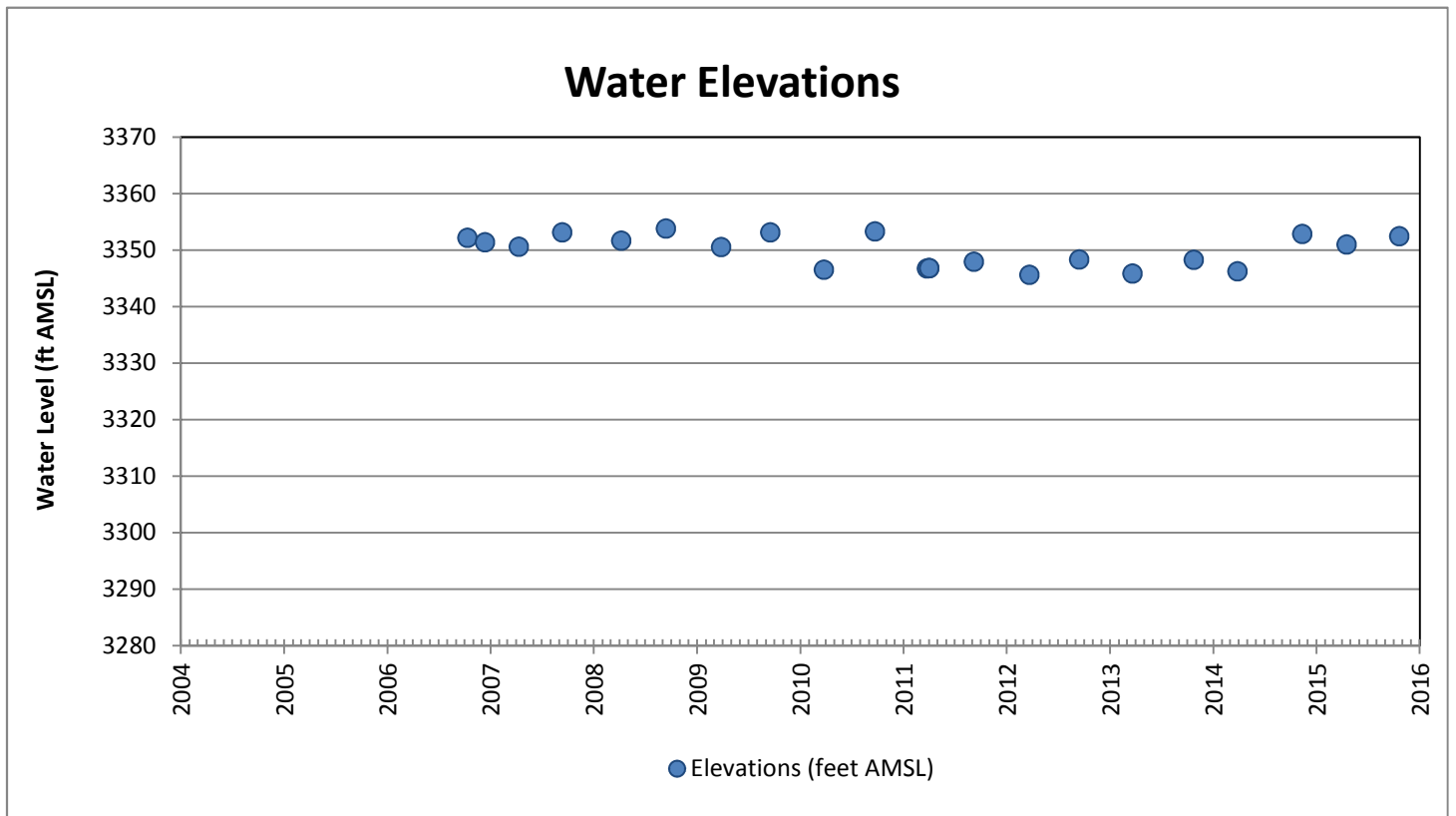
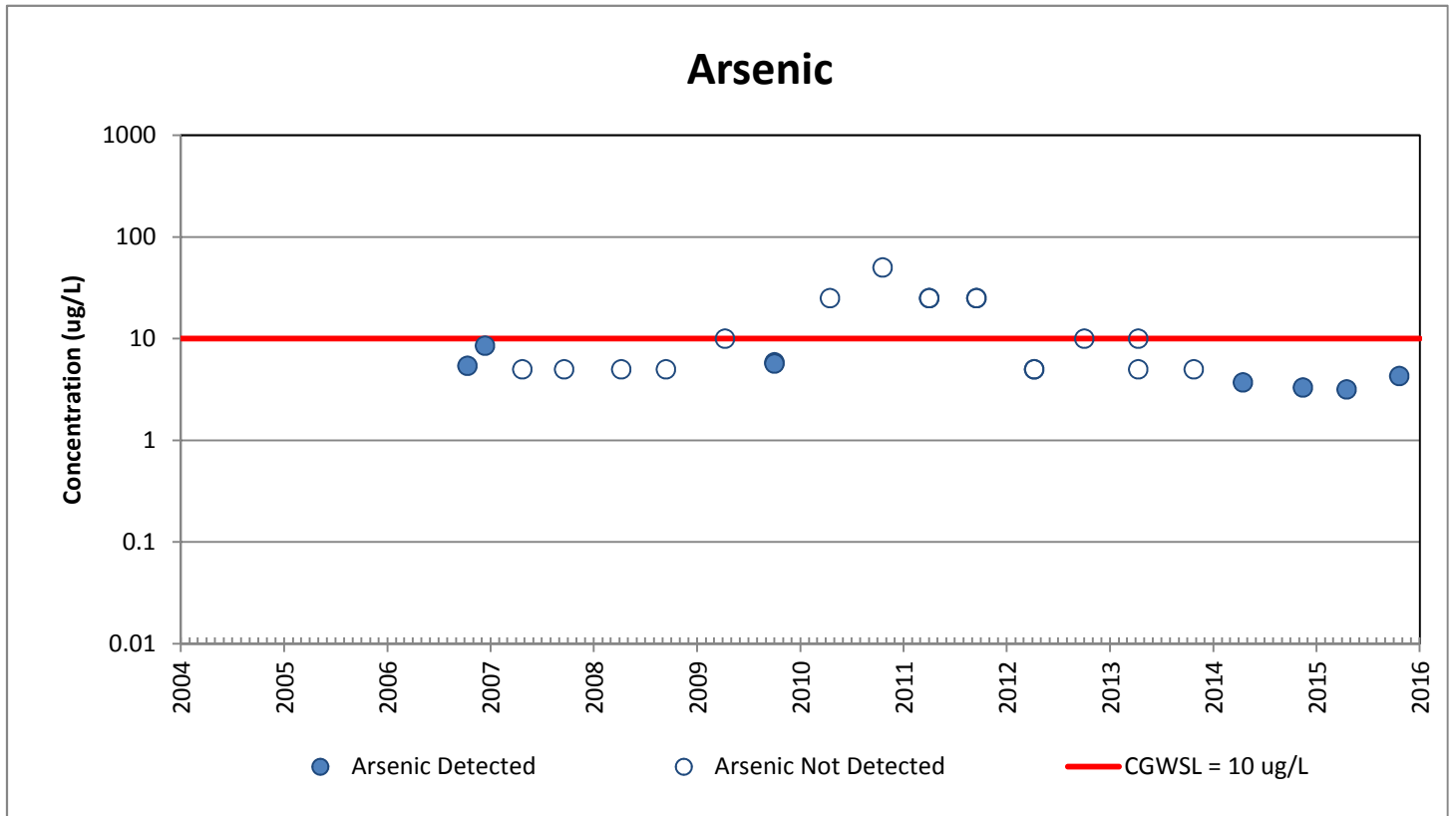
## MTBE



## Naphthalene

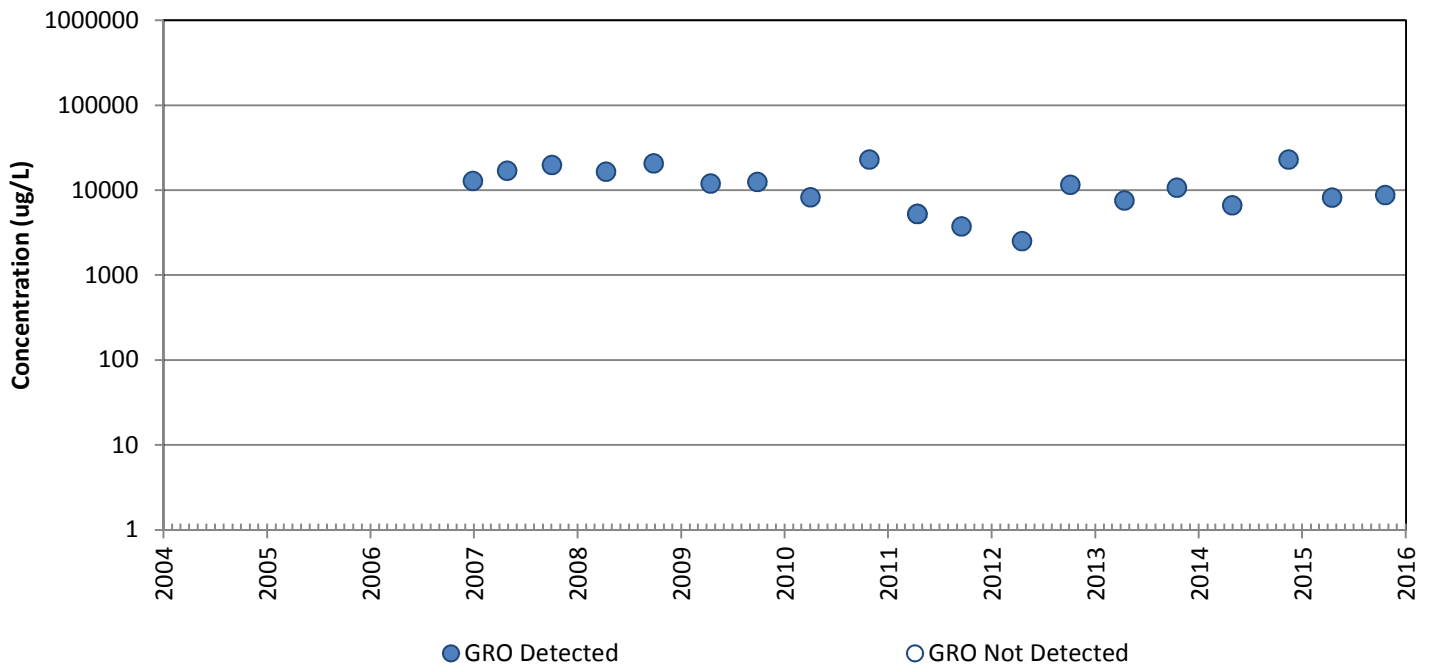


# MW-52

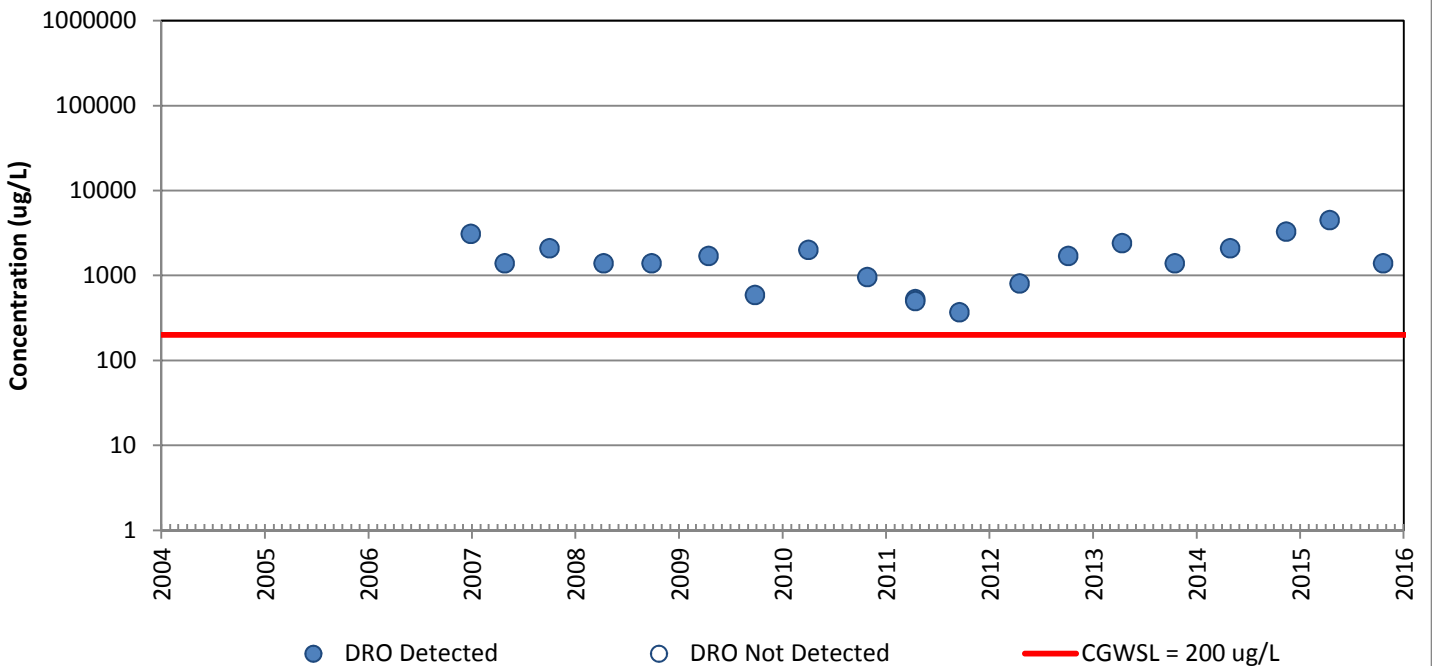


# MW-66

## GRO

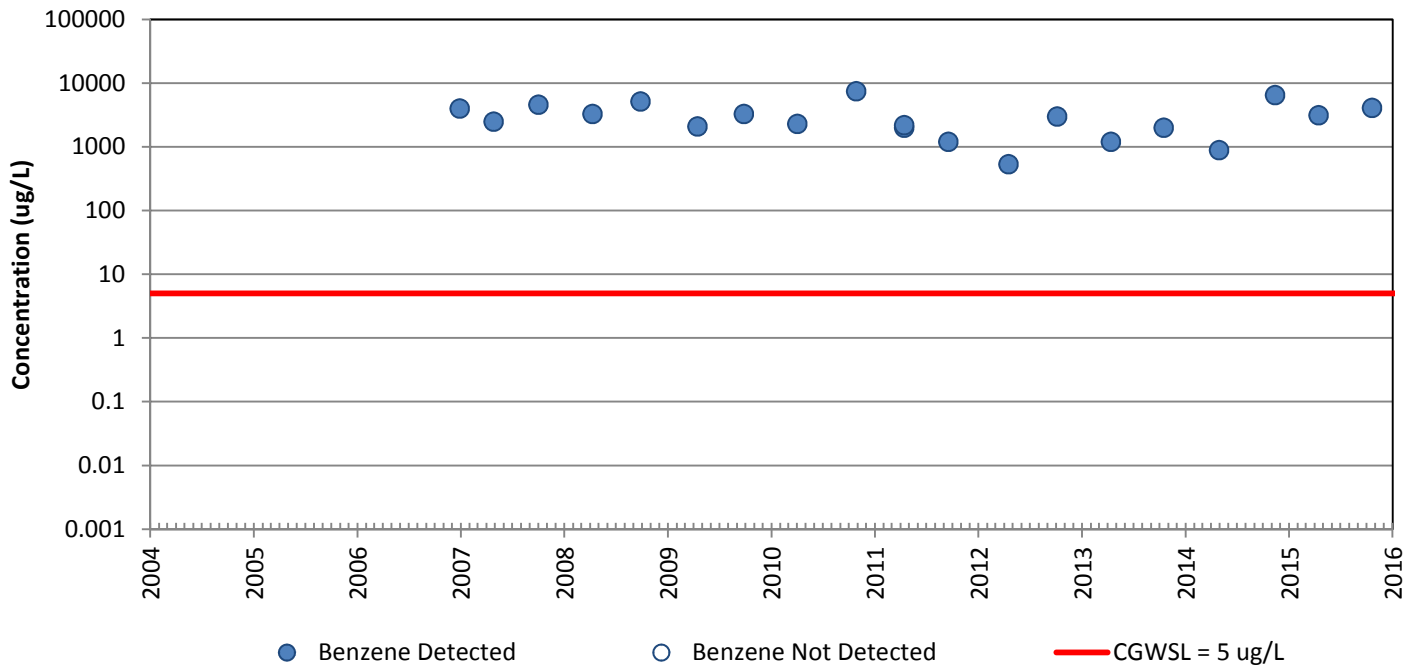


## DRO

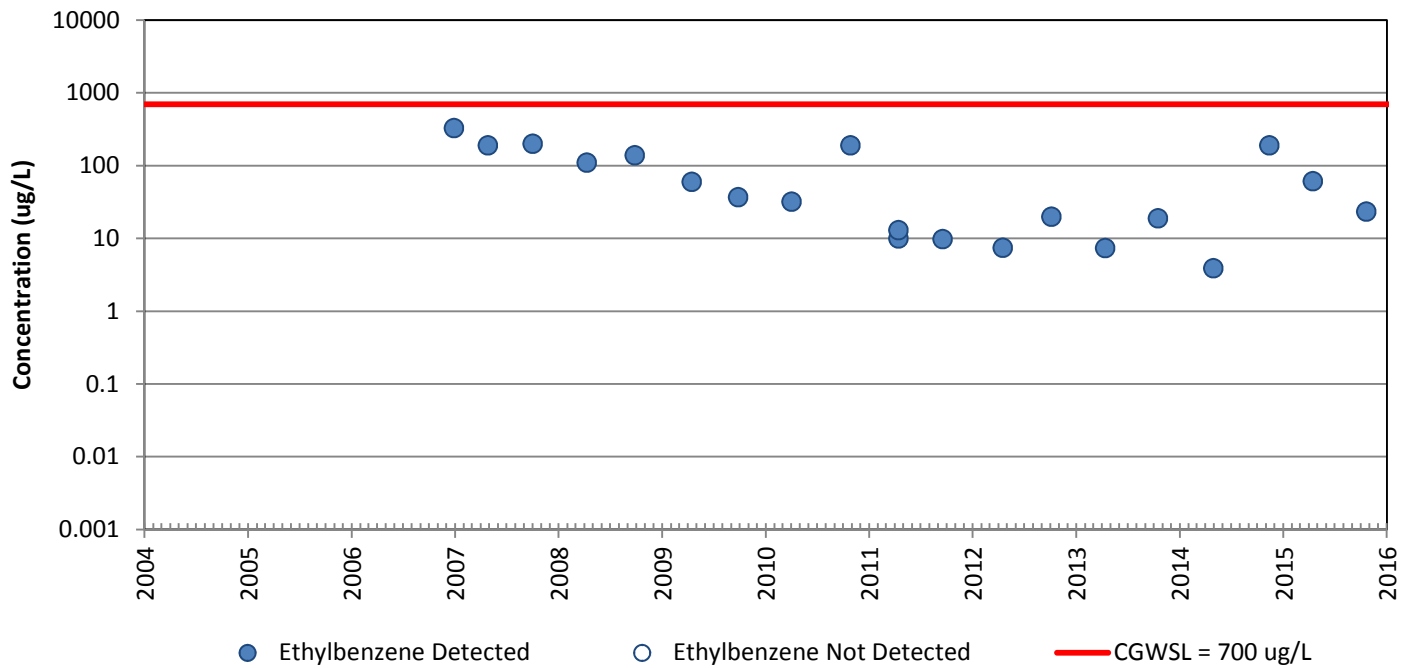


# MW-66

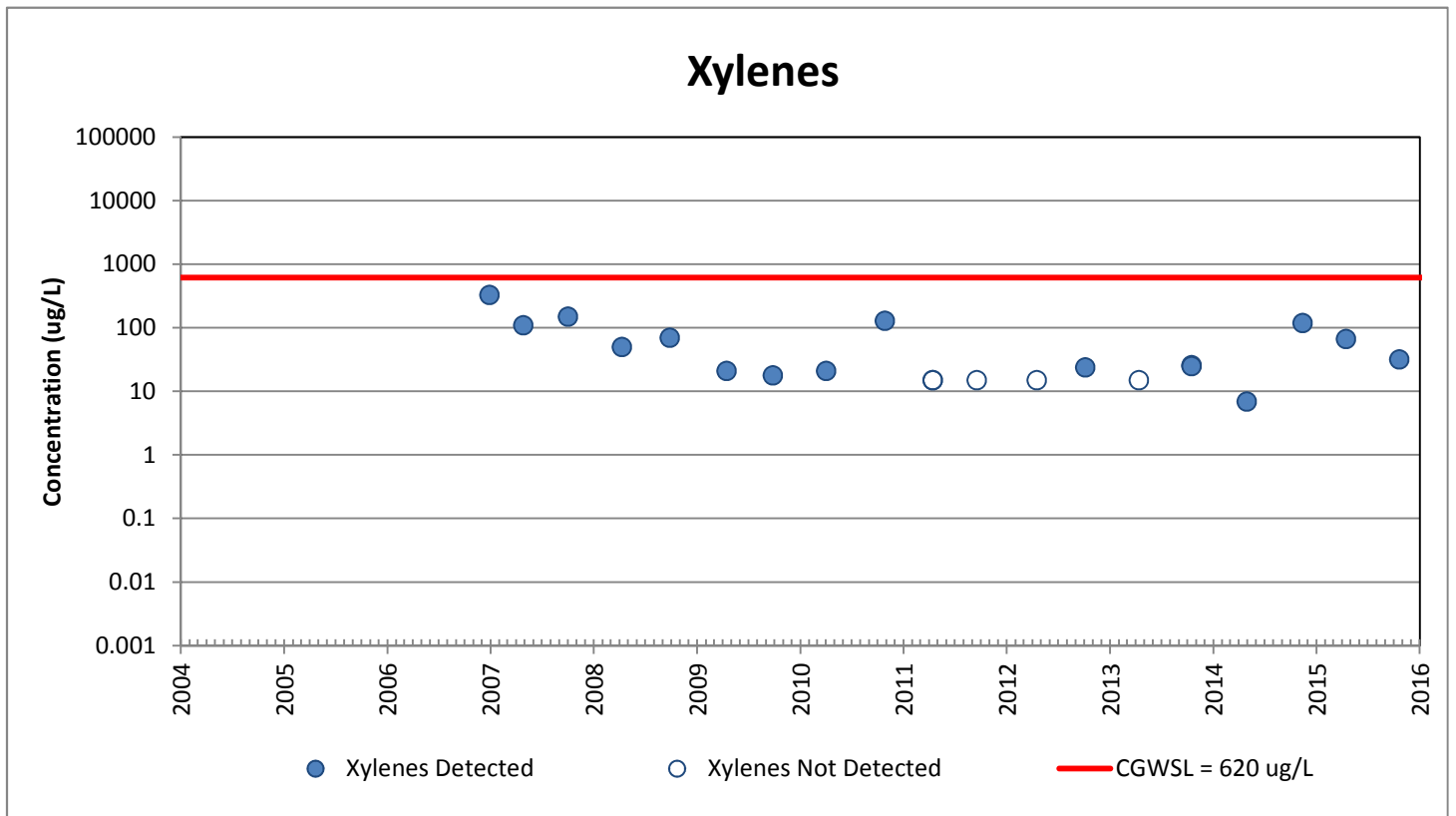
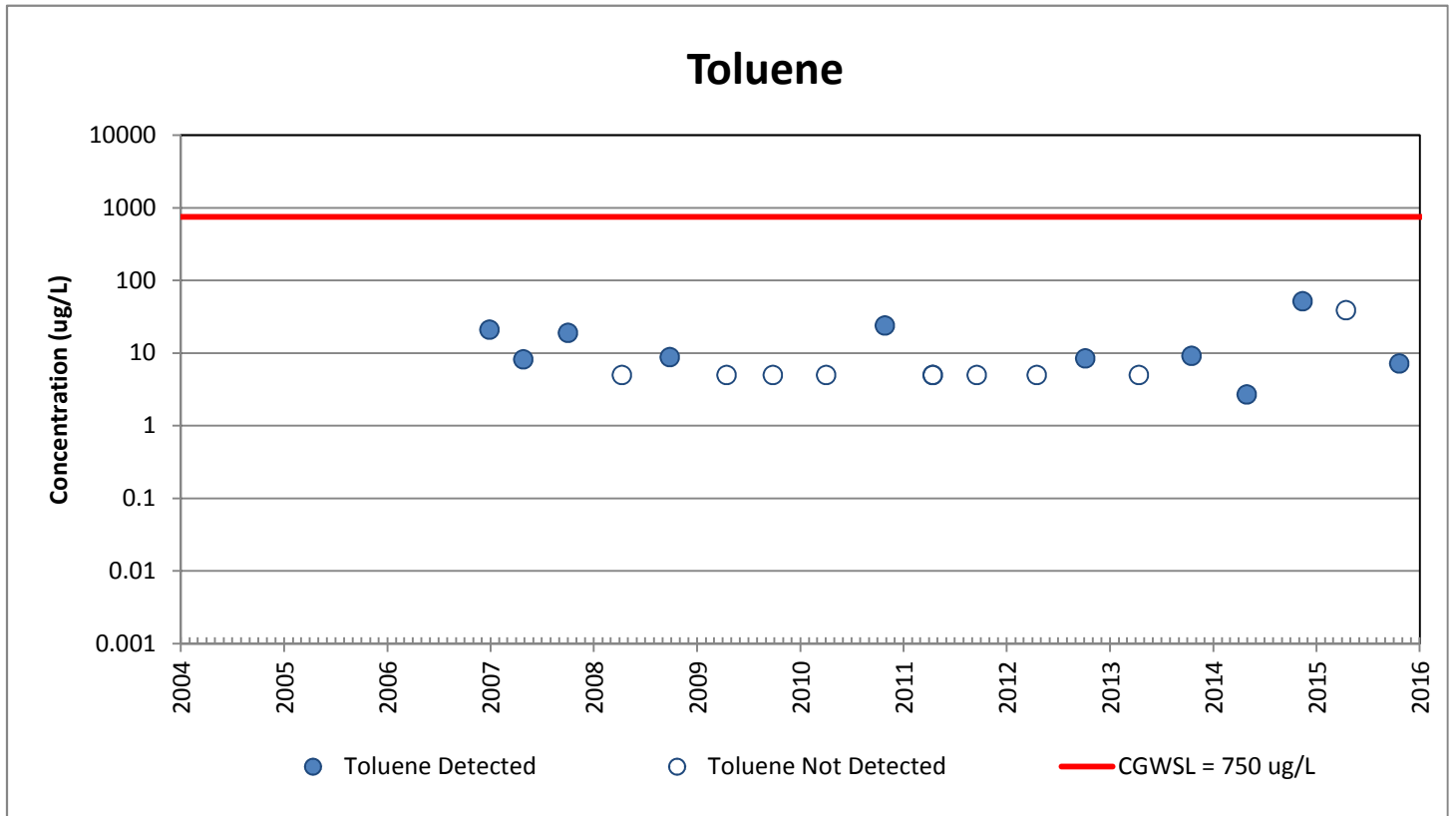
## Benzene



## Ethylbenzene

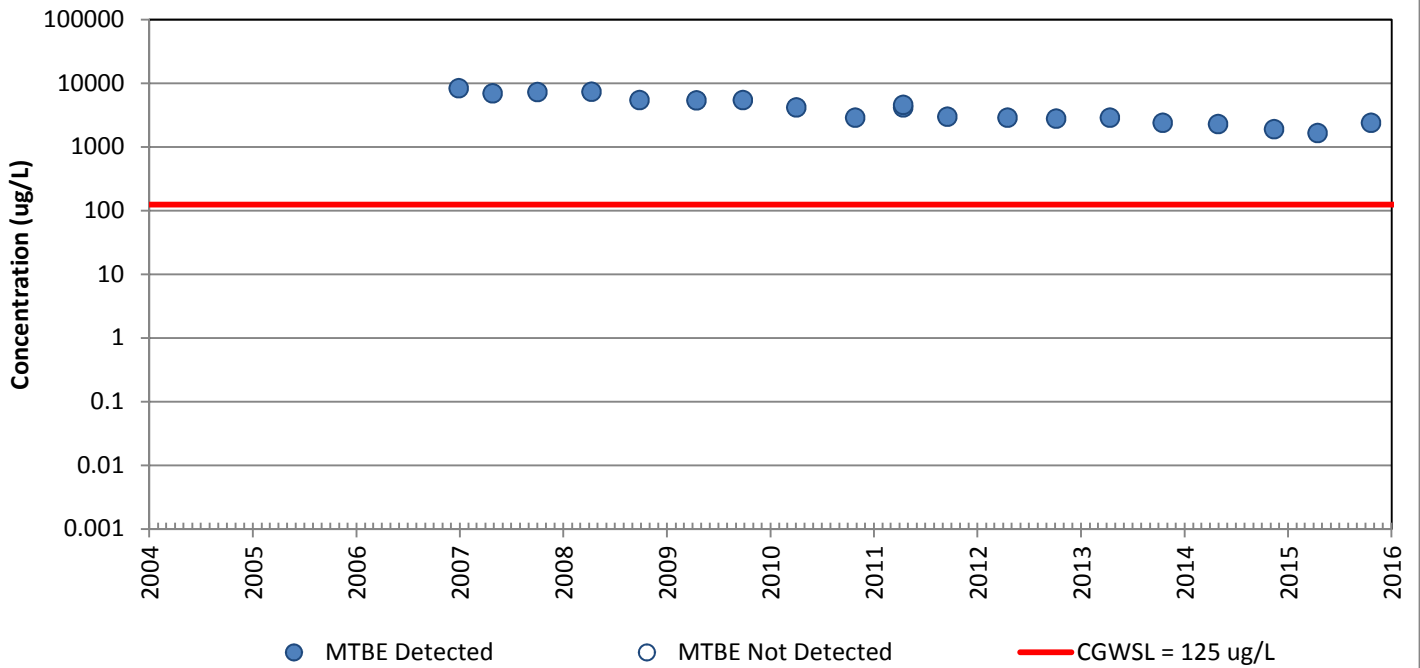


# MW-66

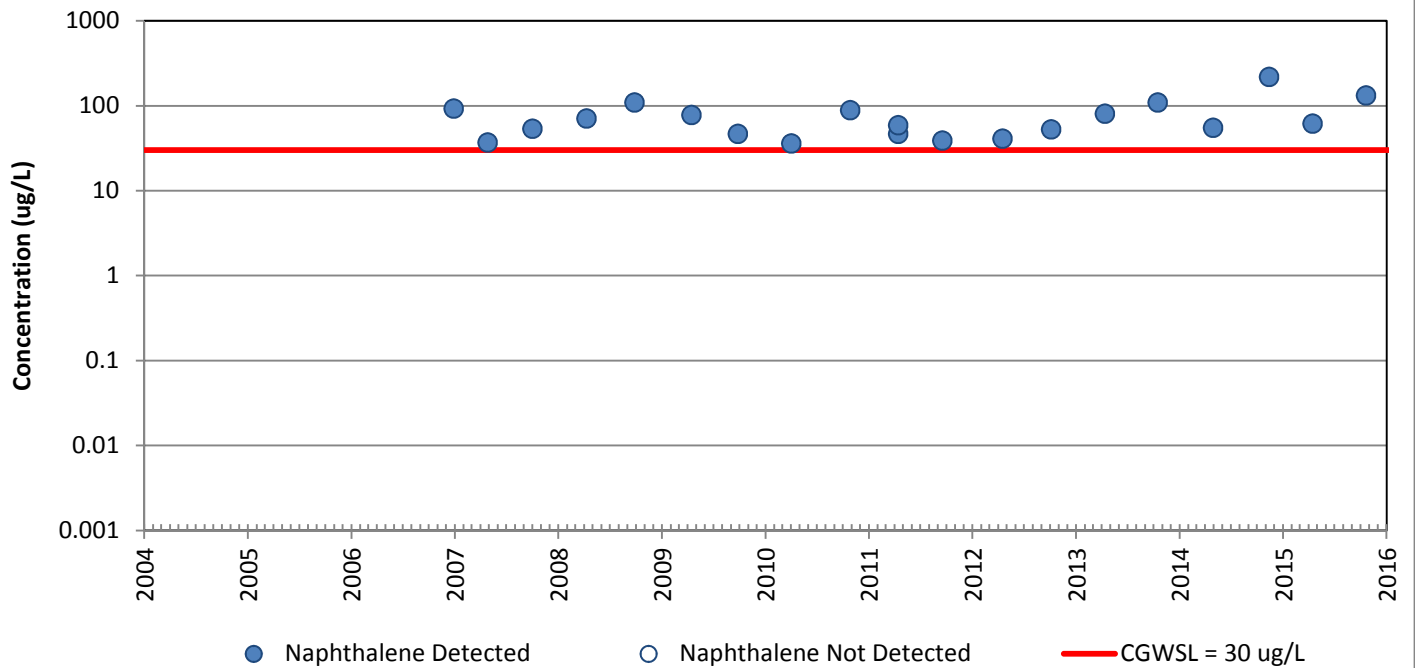


# MW-66

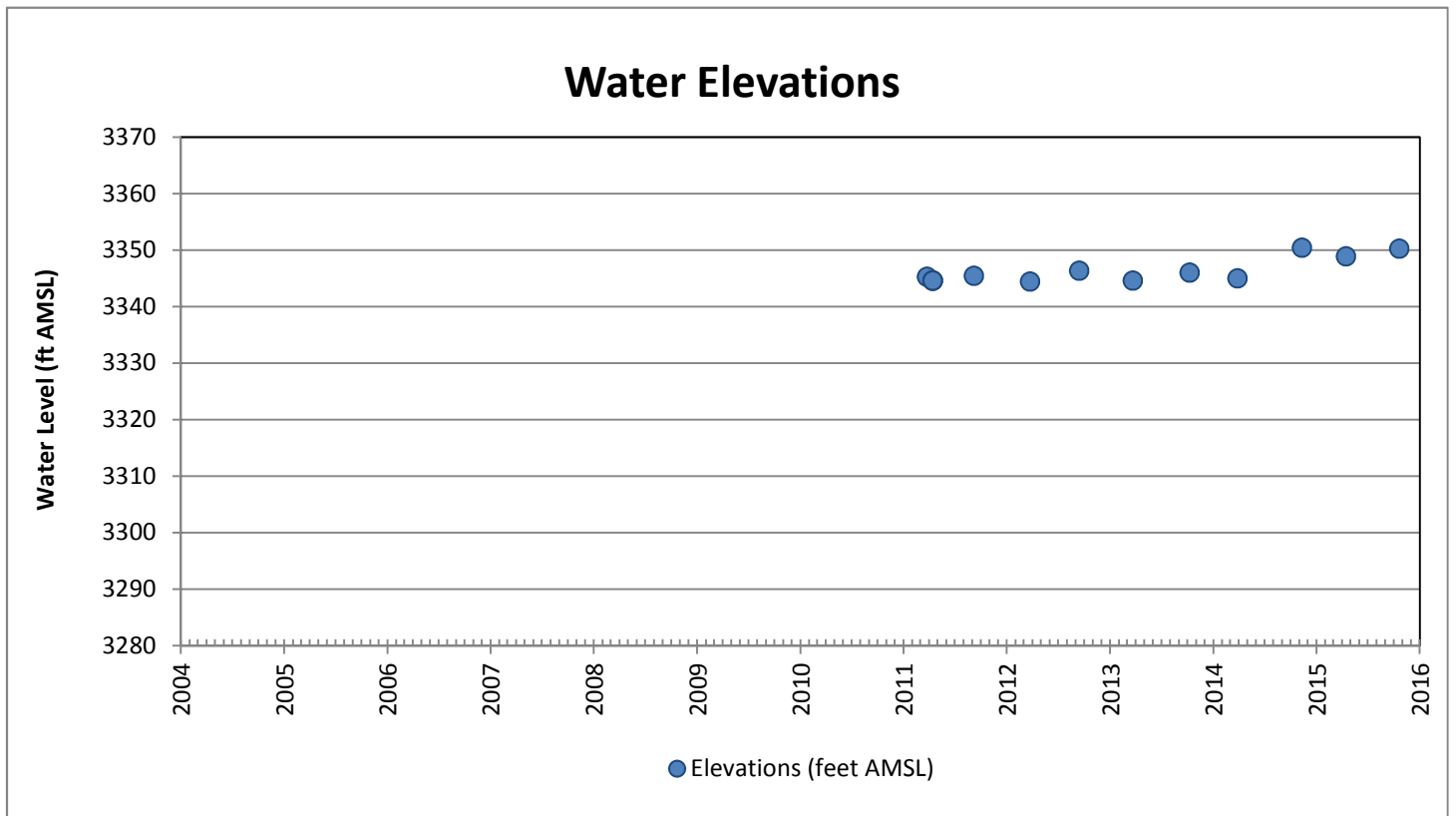
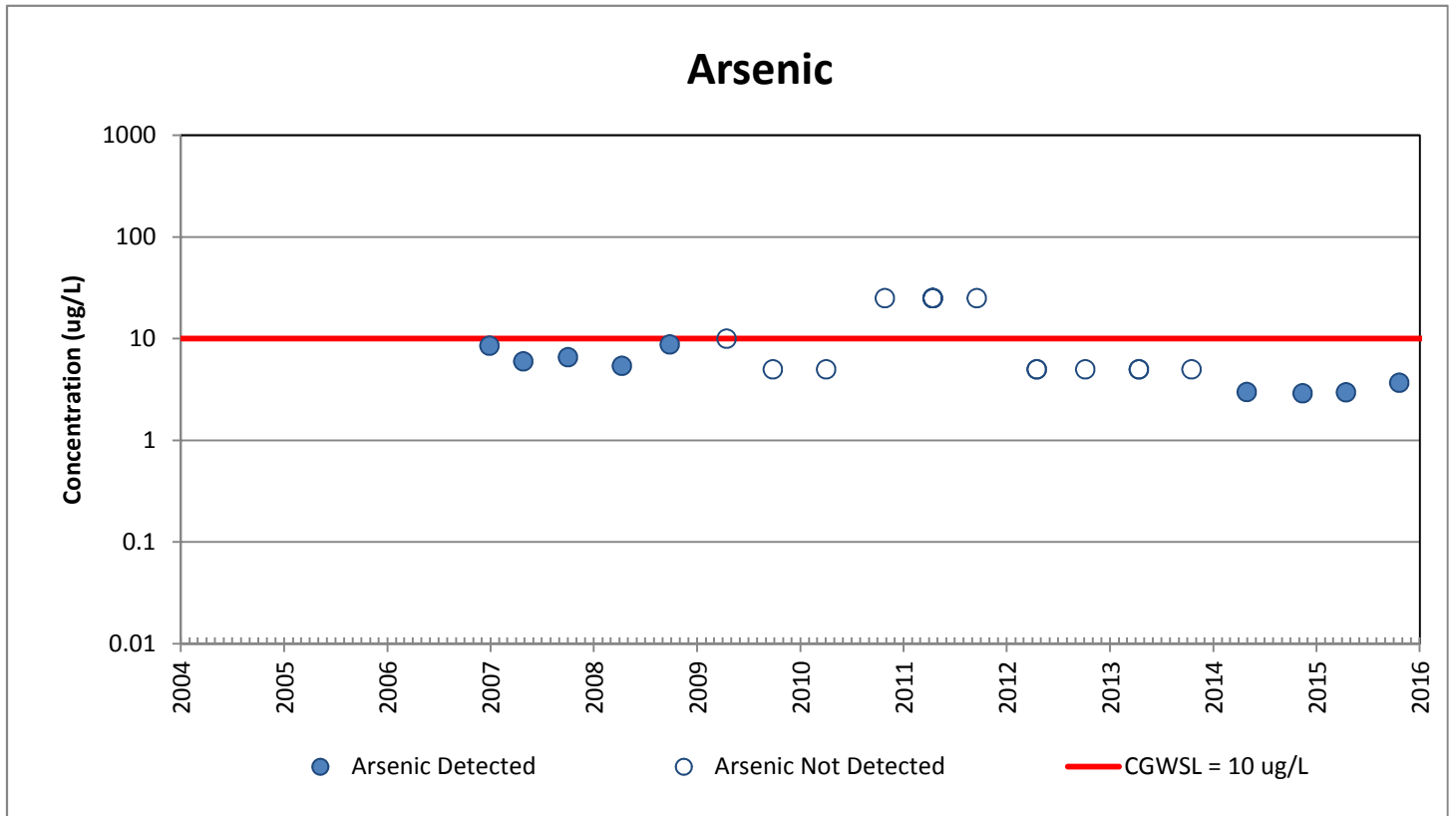
## MTBE



## Naphthalene

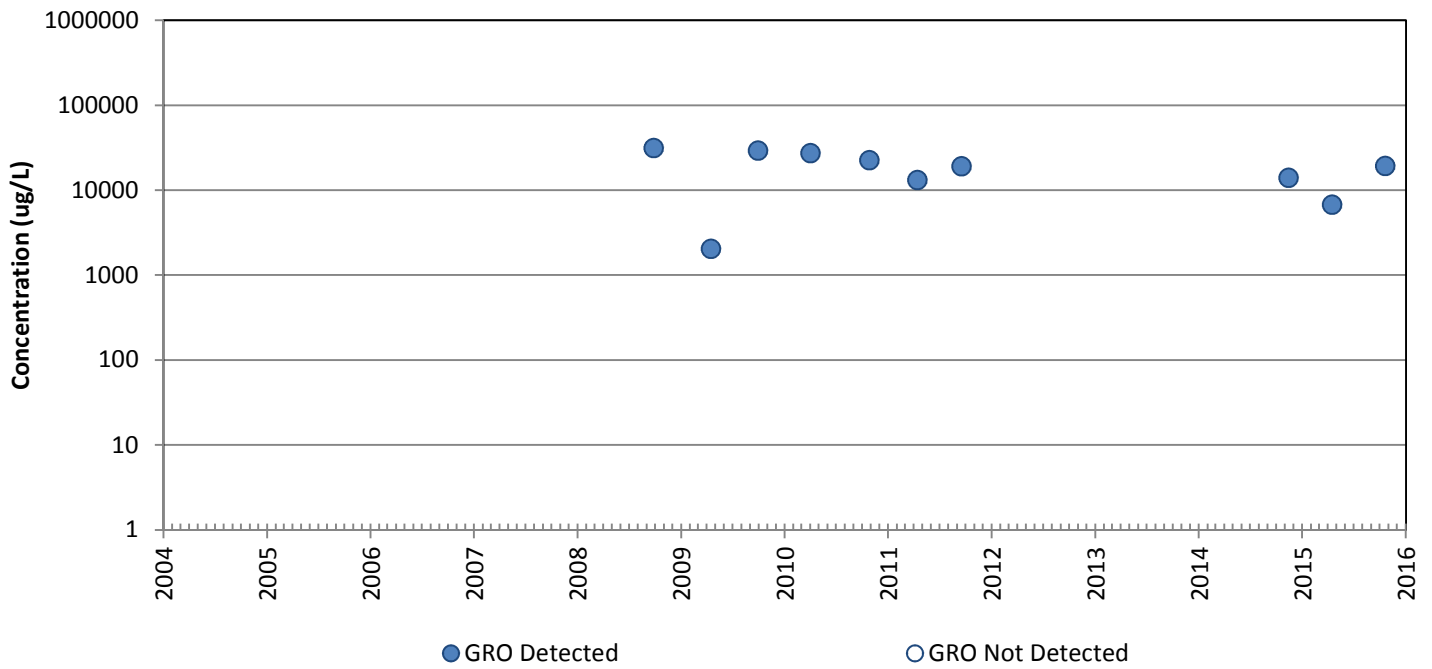


# MW-66

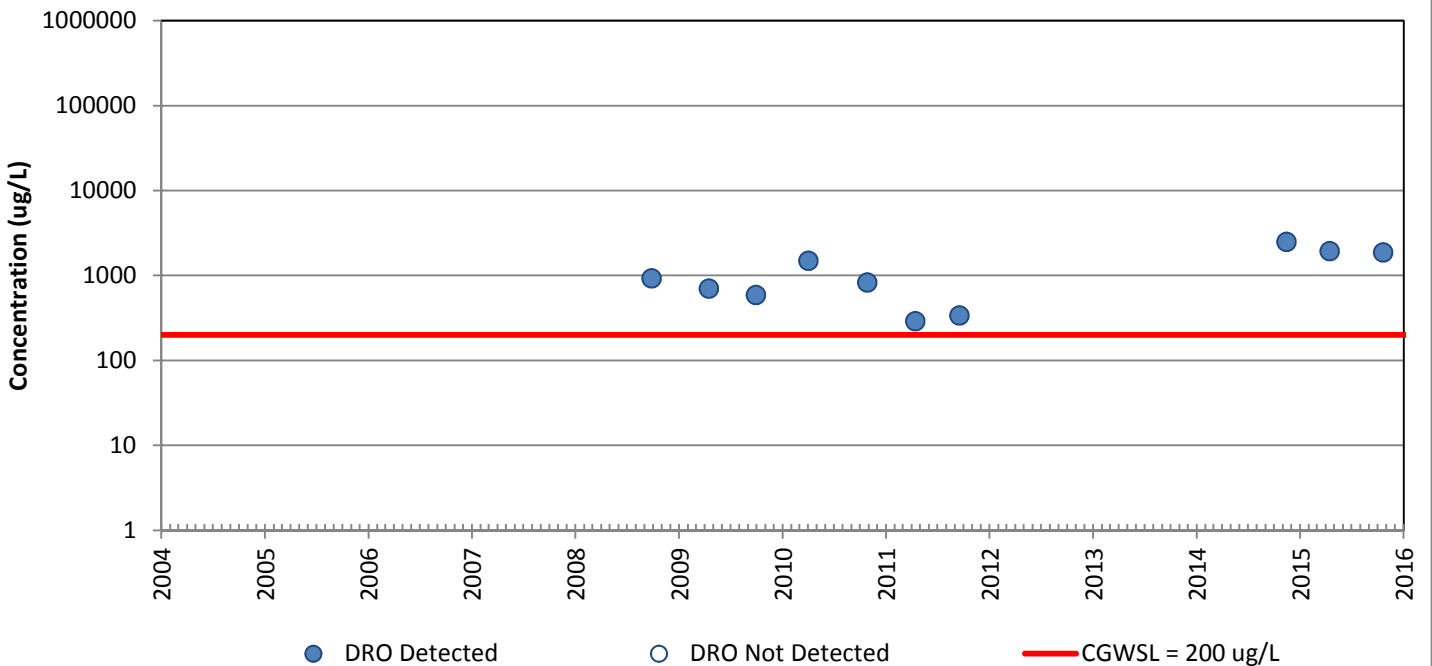


# MW-99

## GRO

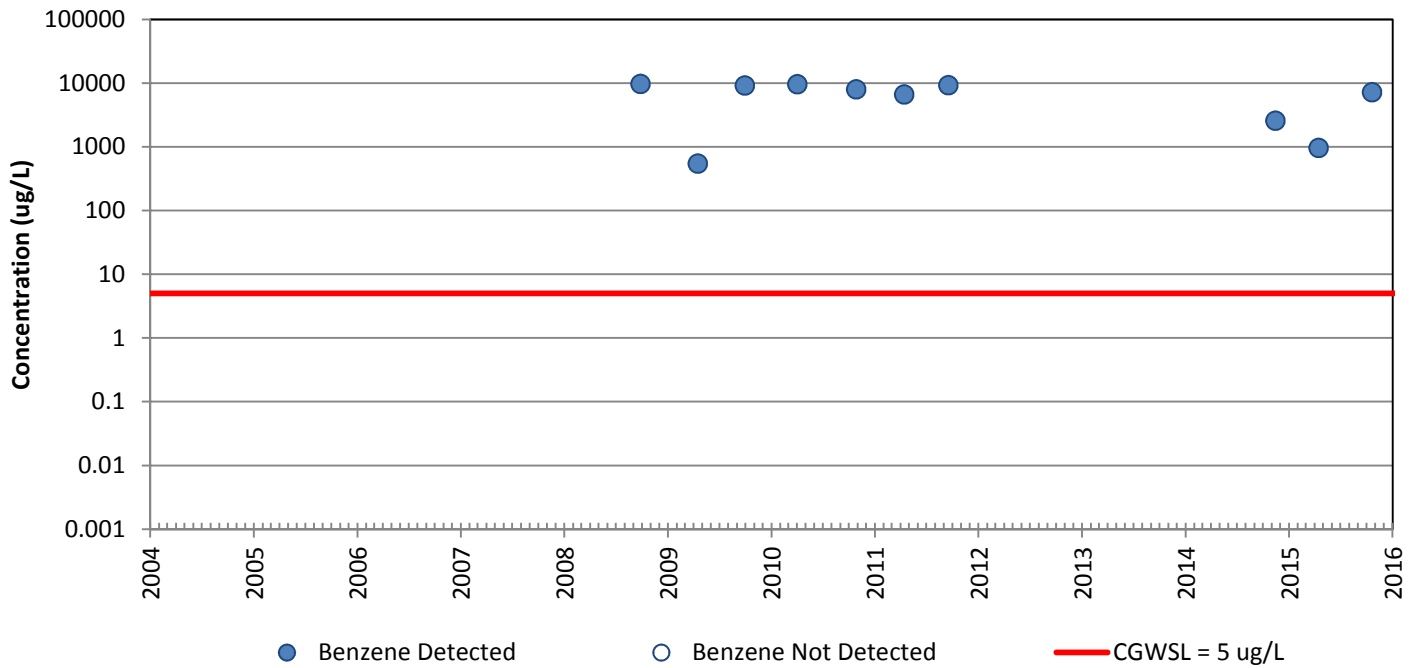


## DRO

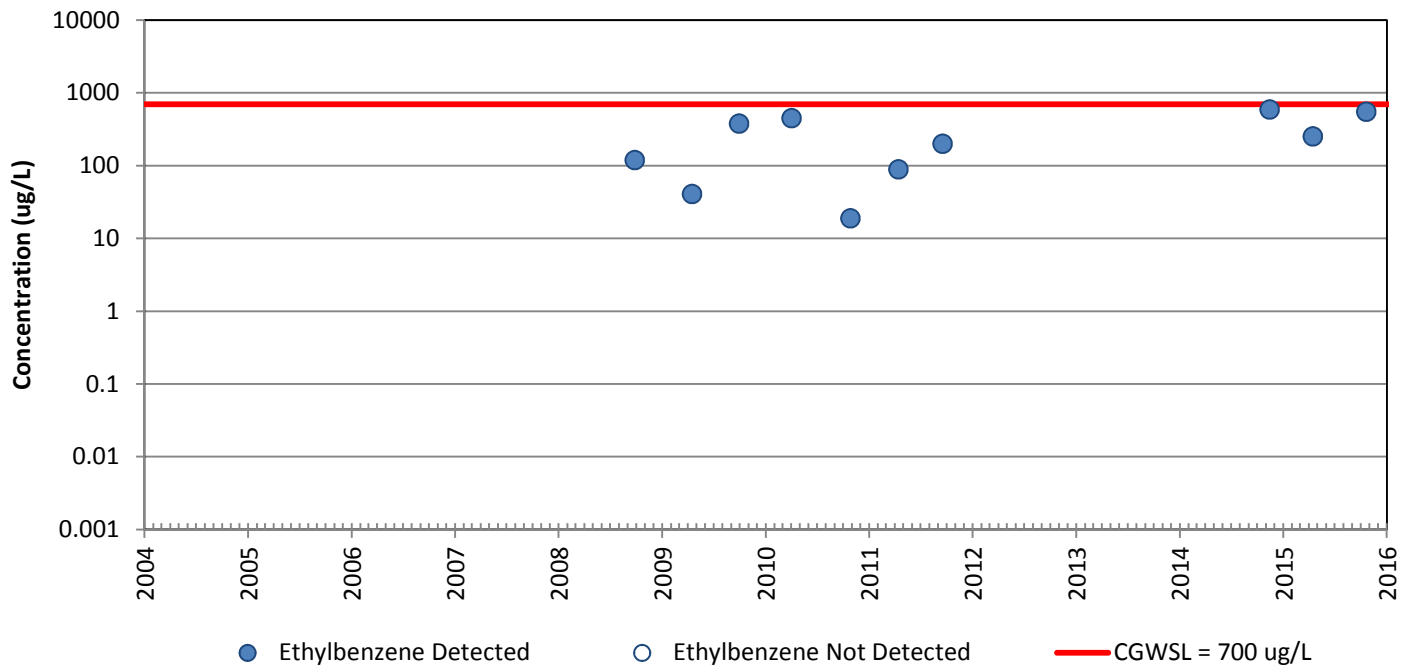


# MW-99

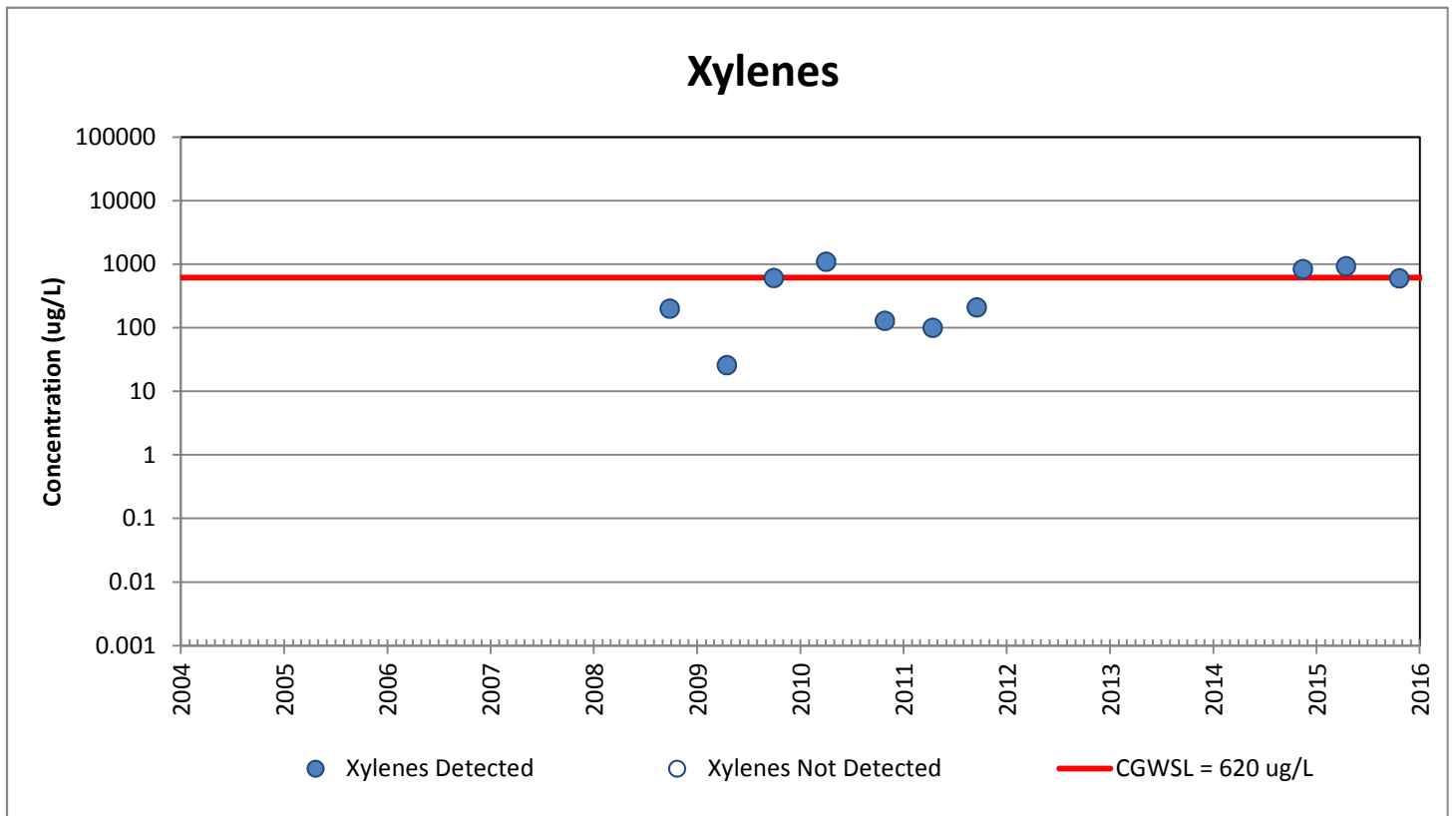
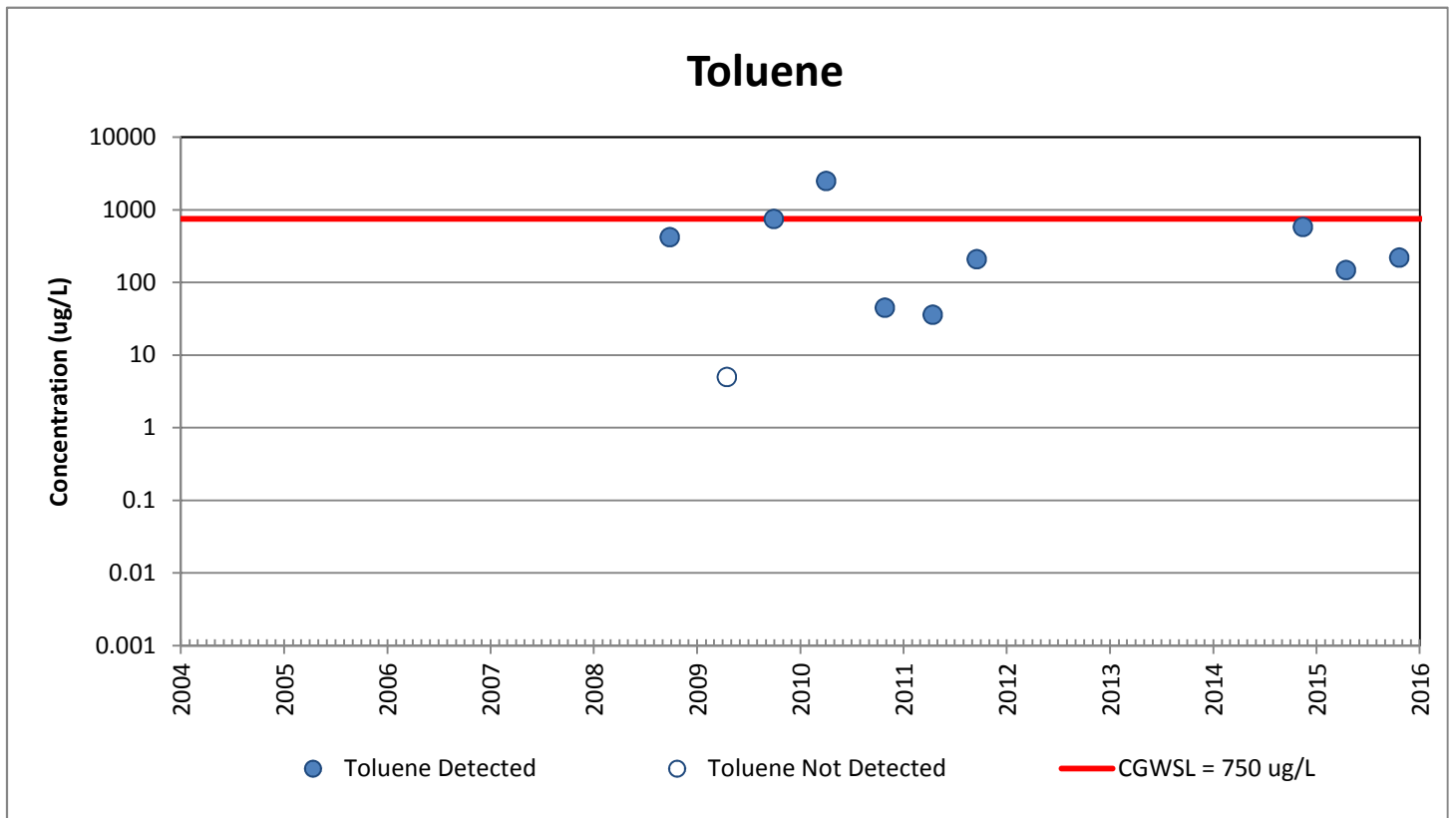
## Benzene



## Ethylbenzene

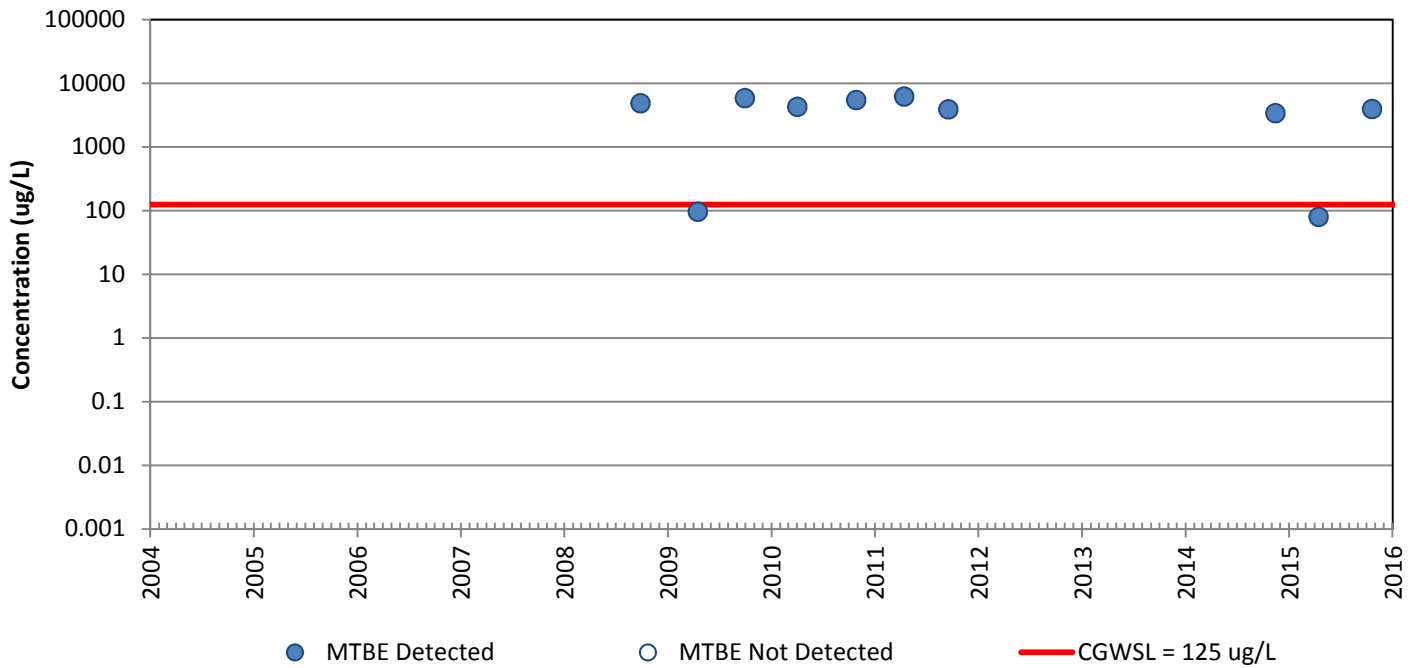


# MW-99

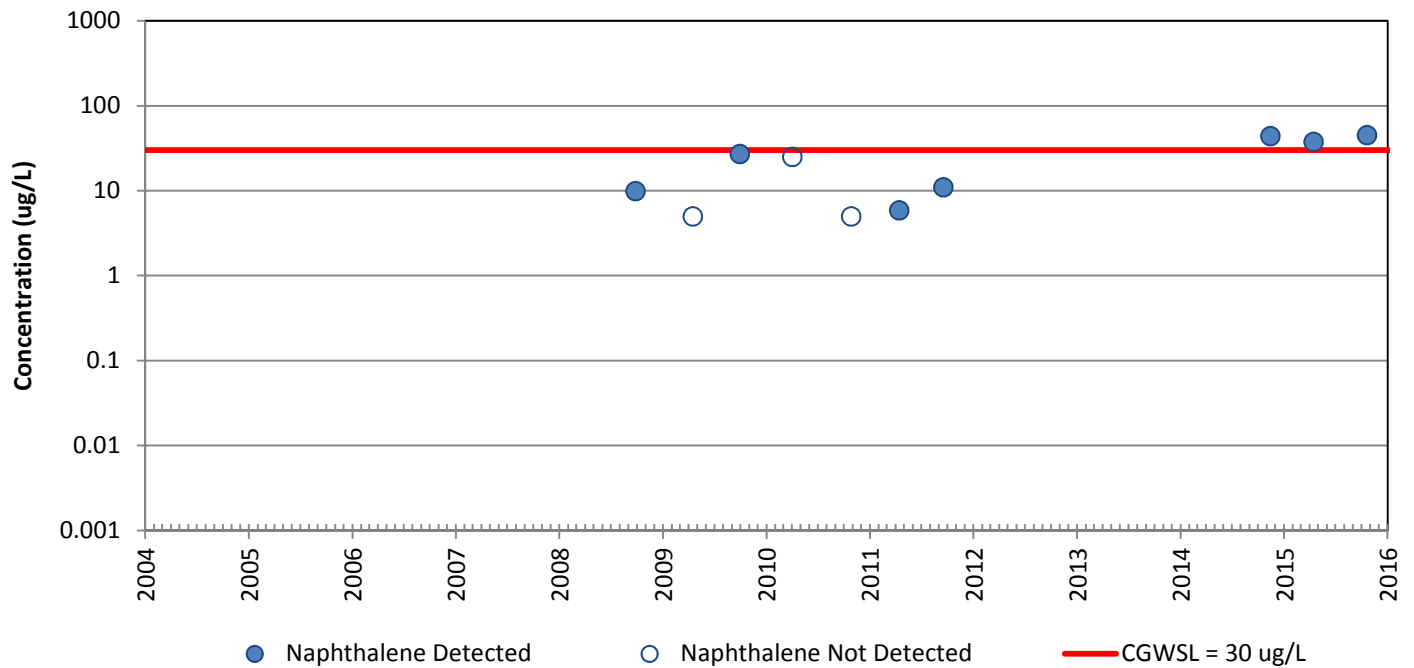


# MW-99

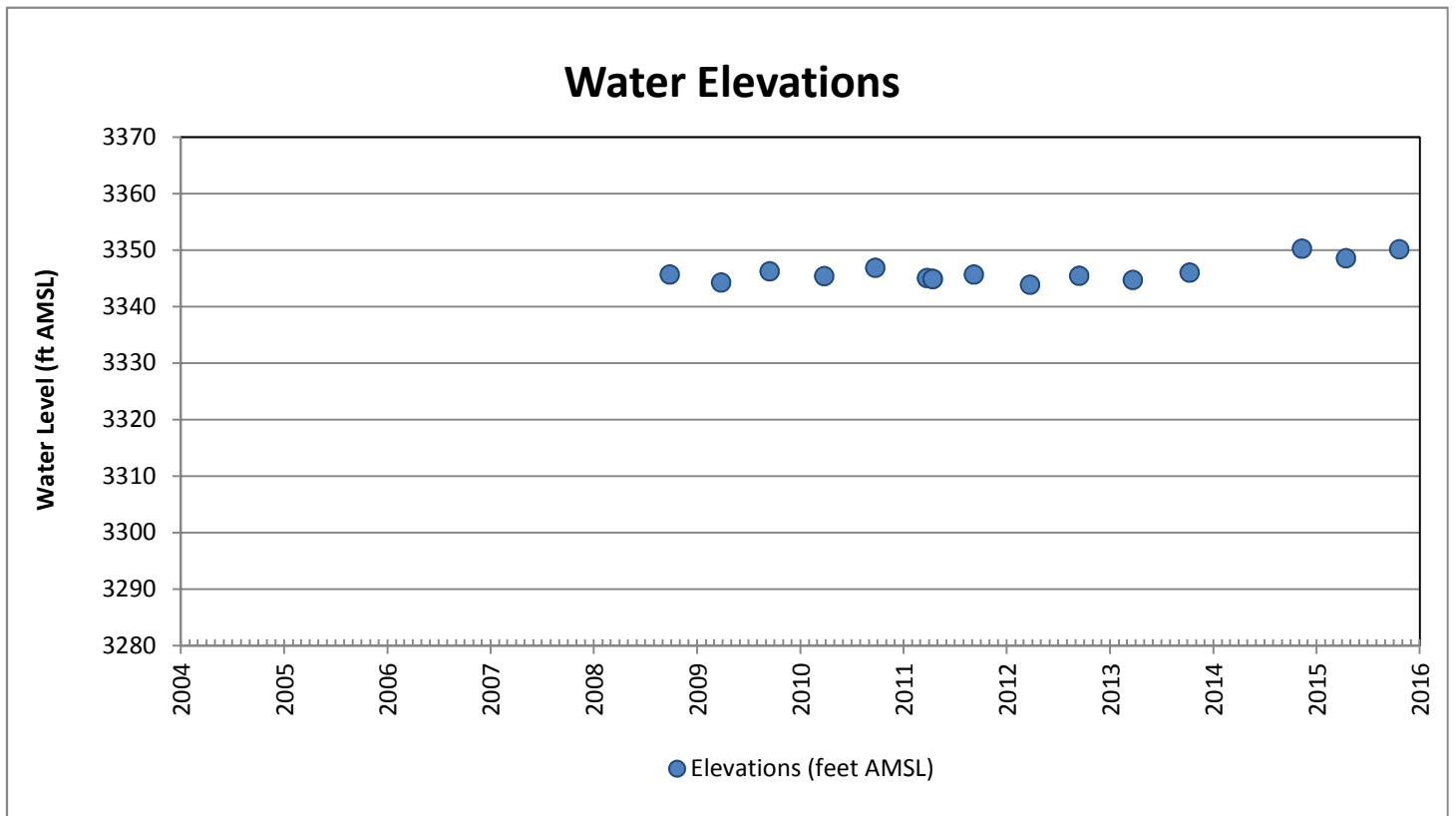
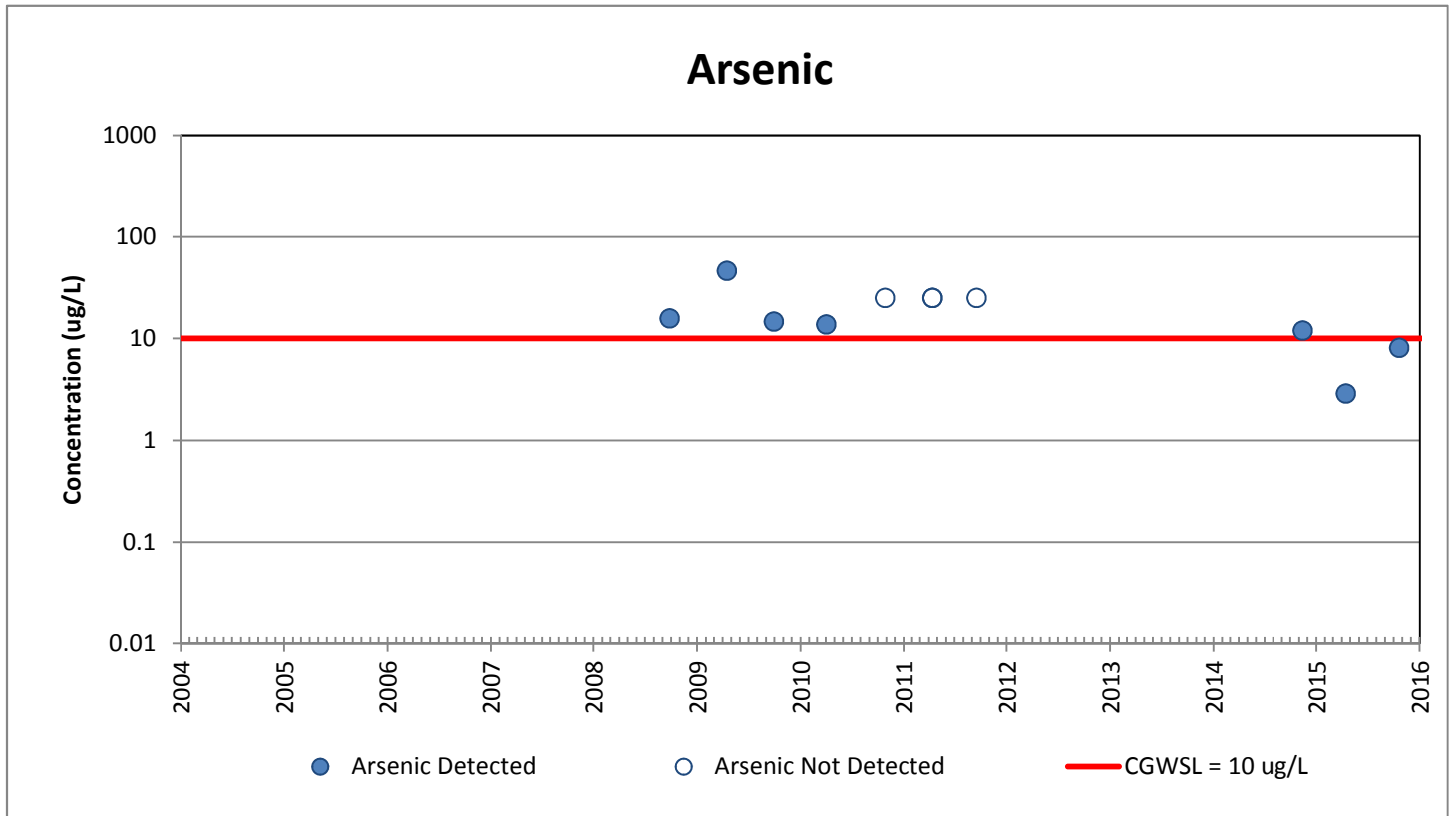
## MTBE



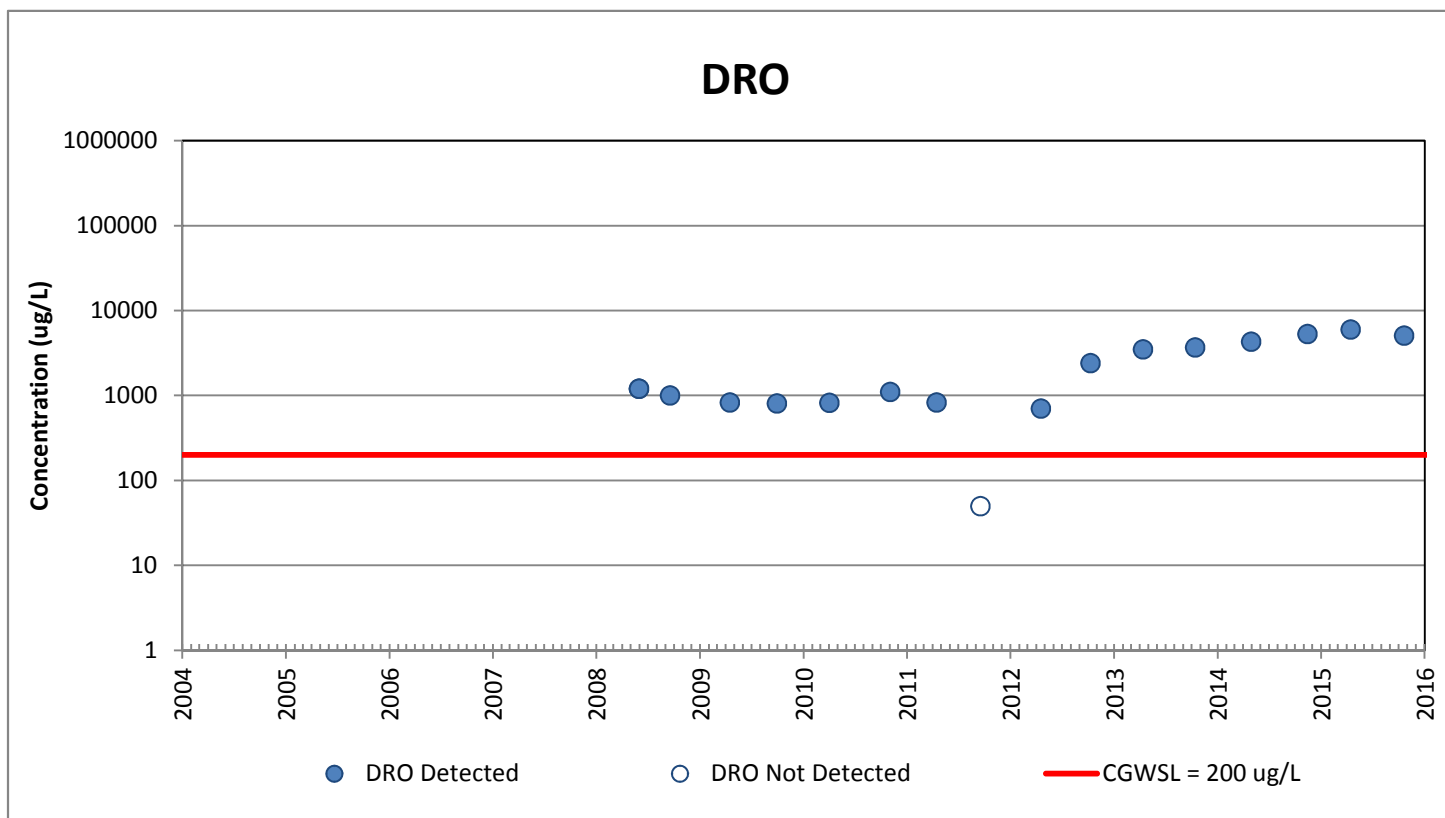
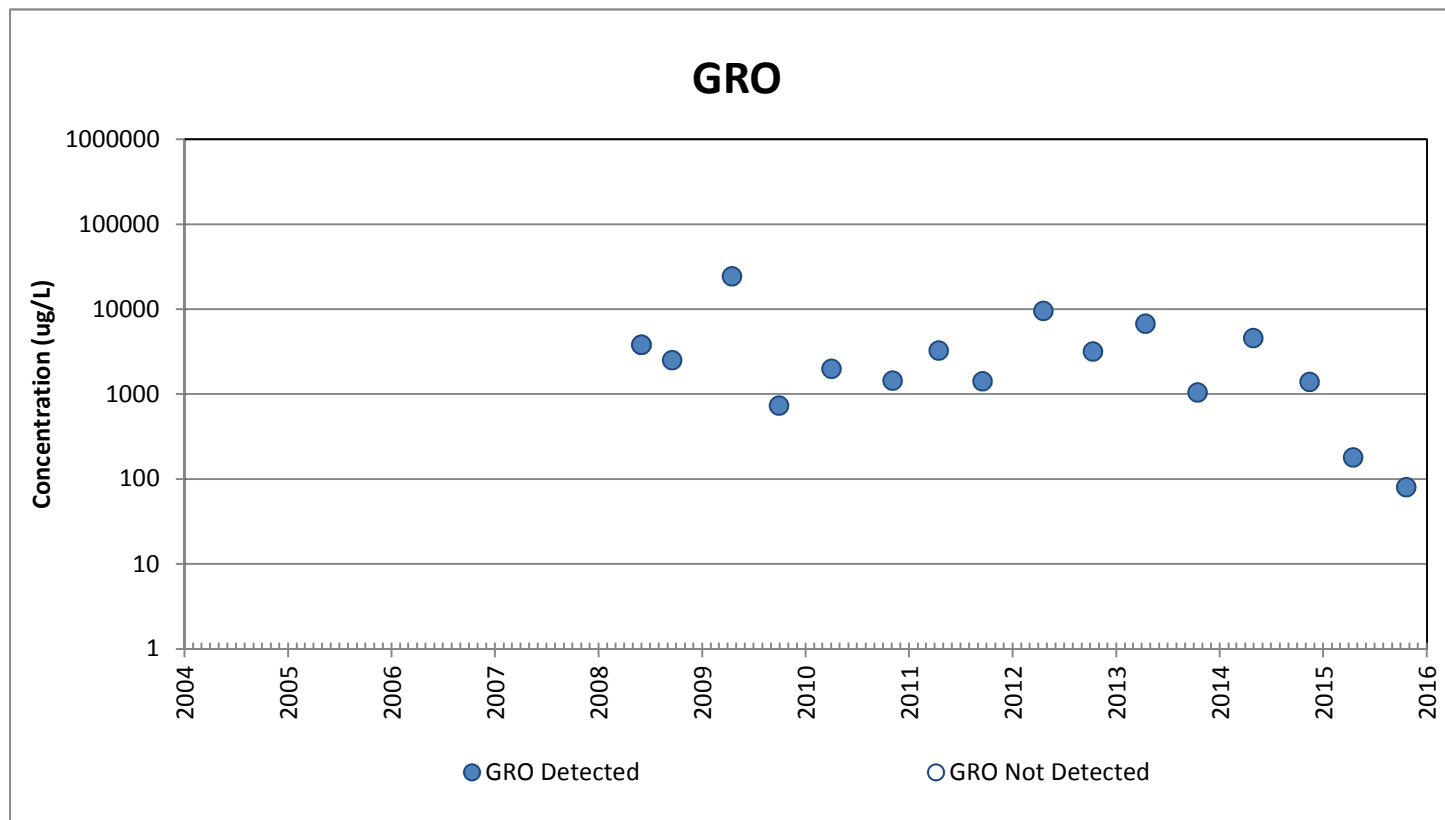
## Naphthalene



# MW-99

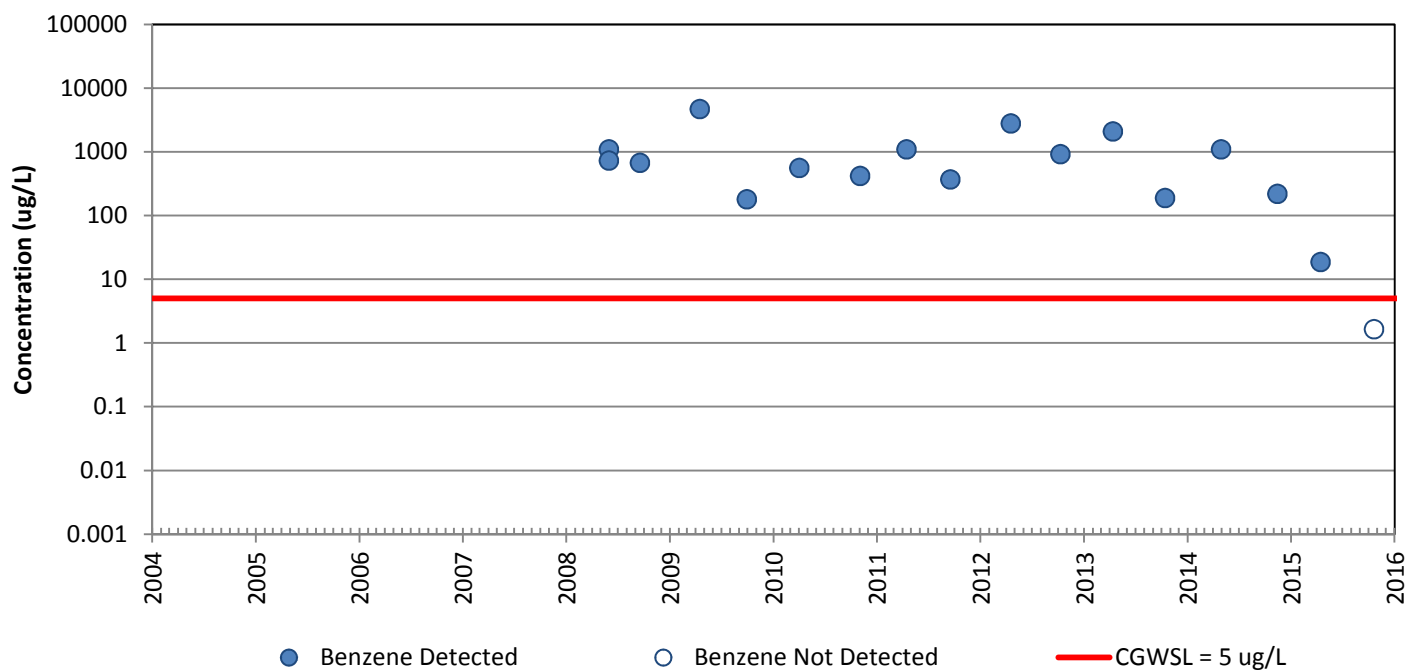


# MW-101

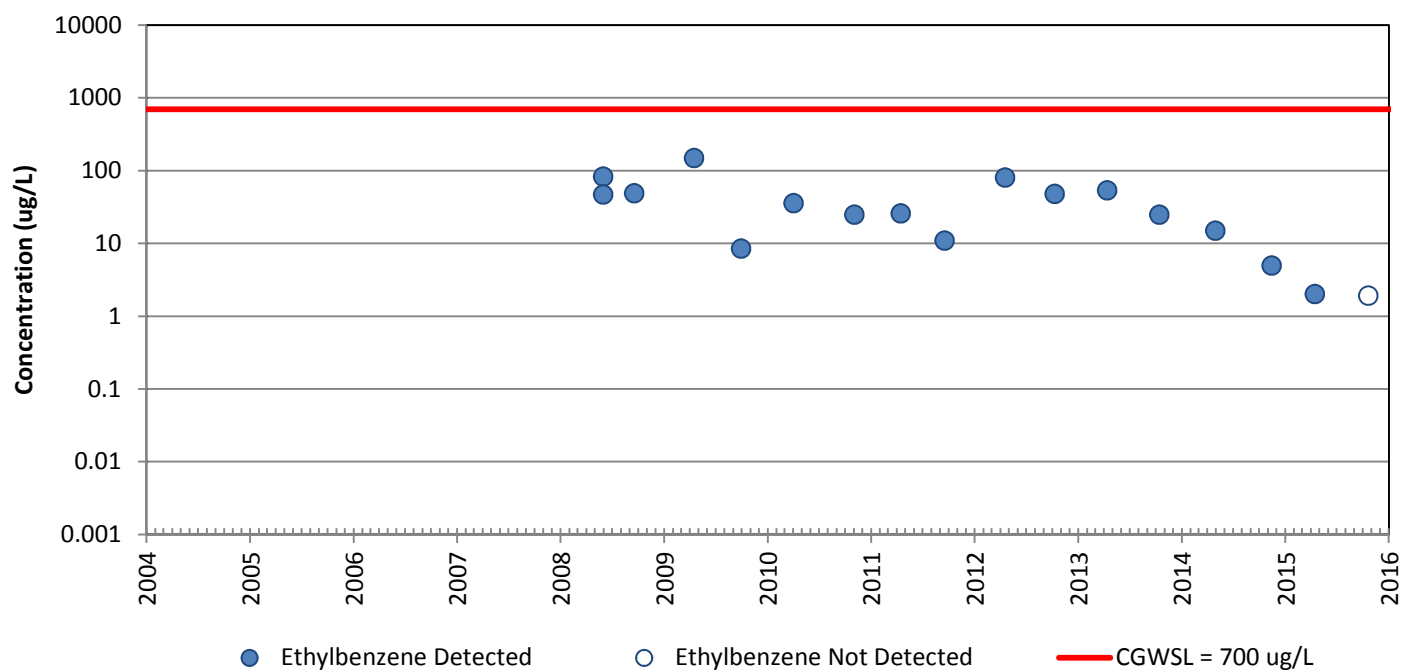


# MW-101

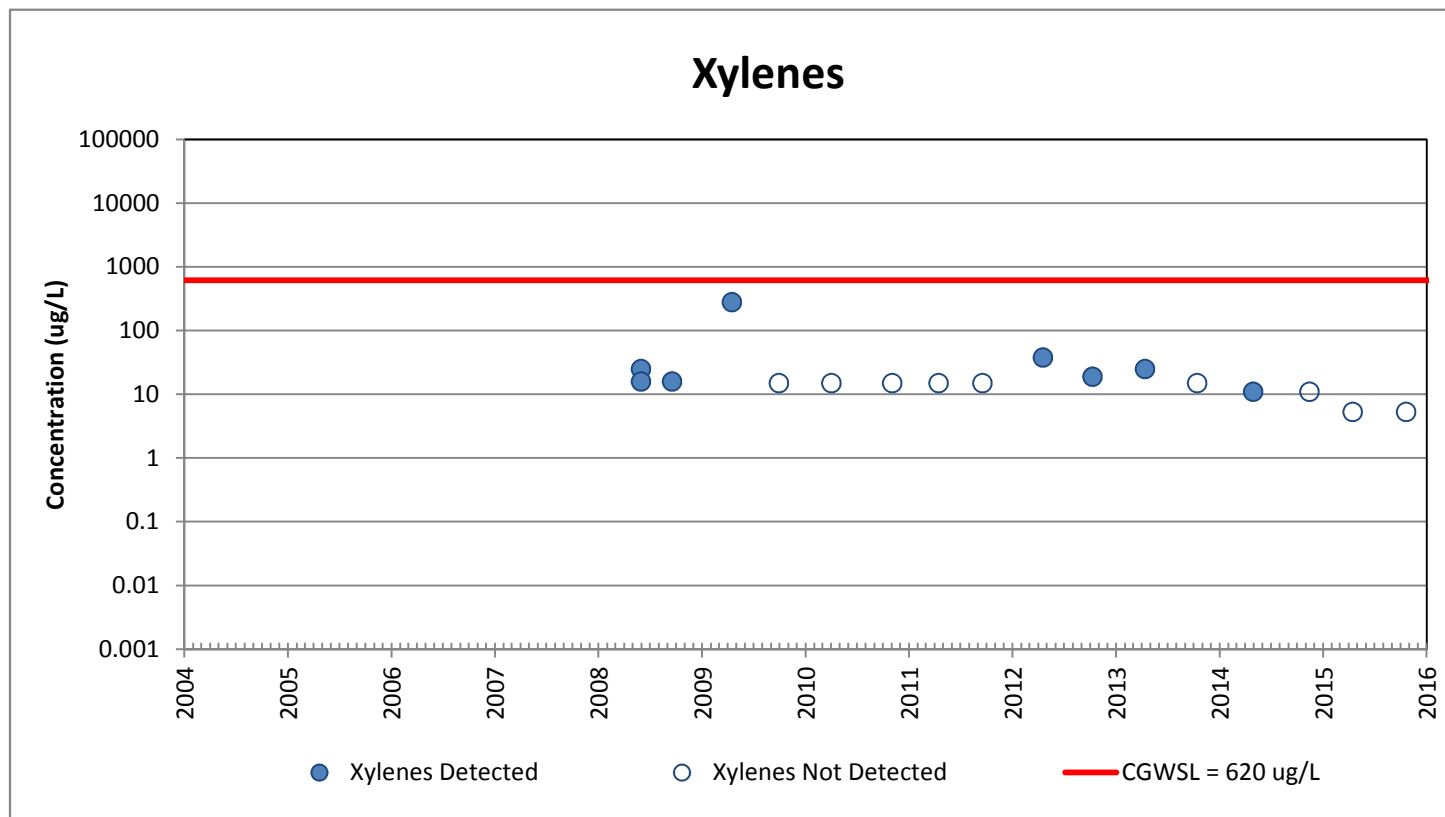
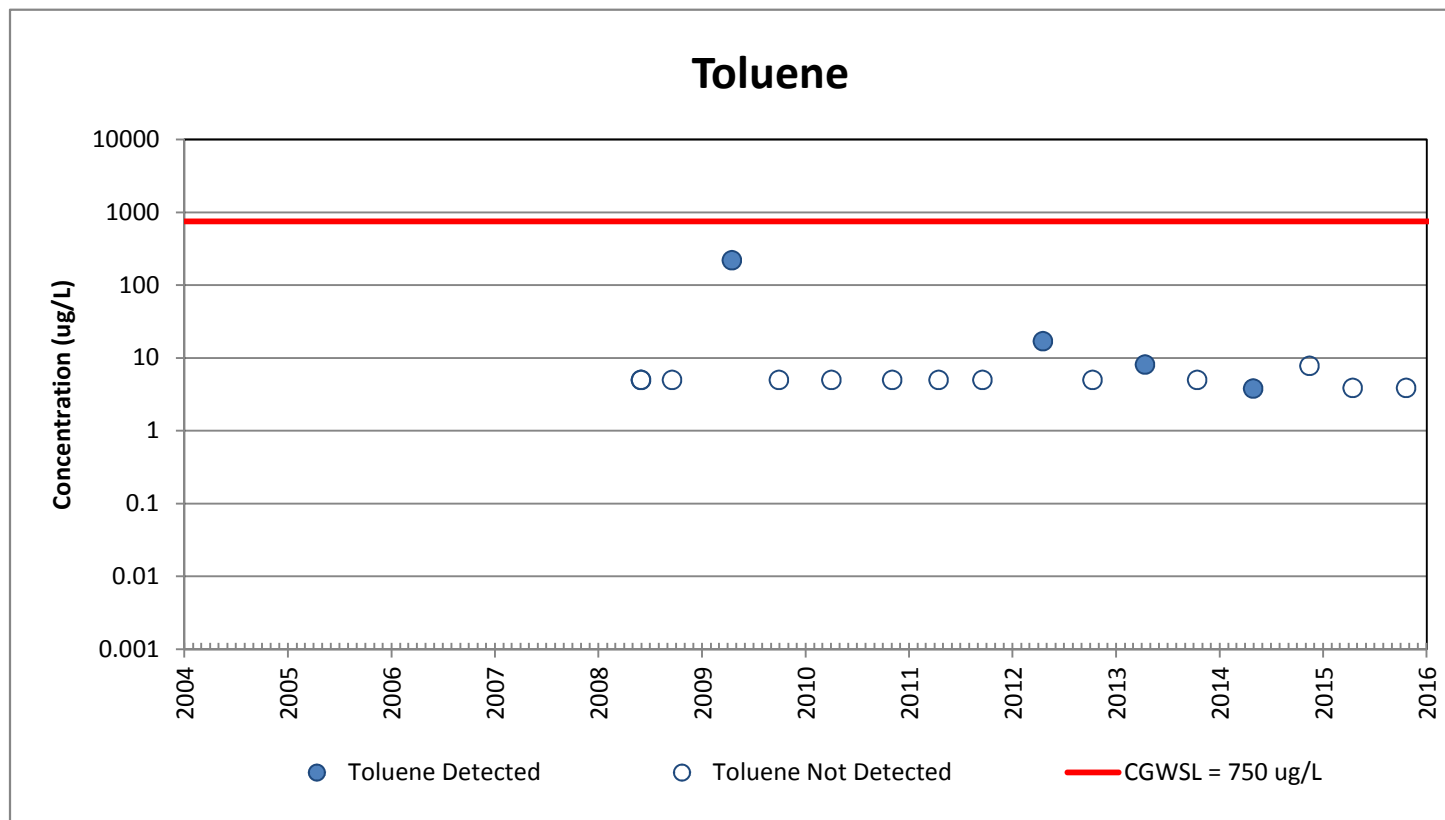
## Benzene



## Ethylbenzene

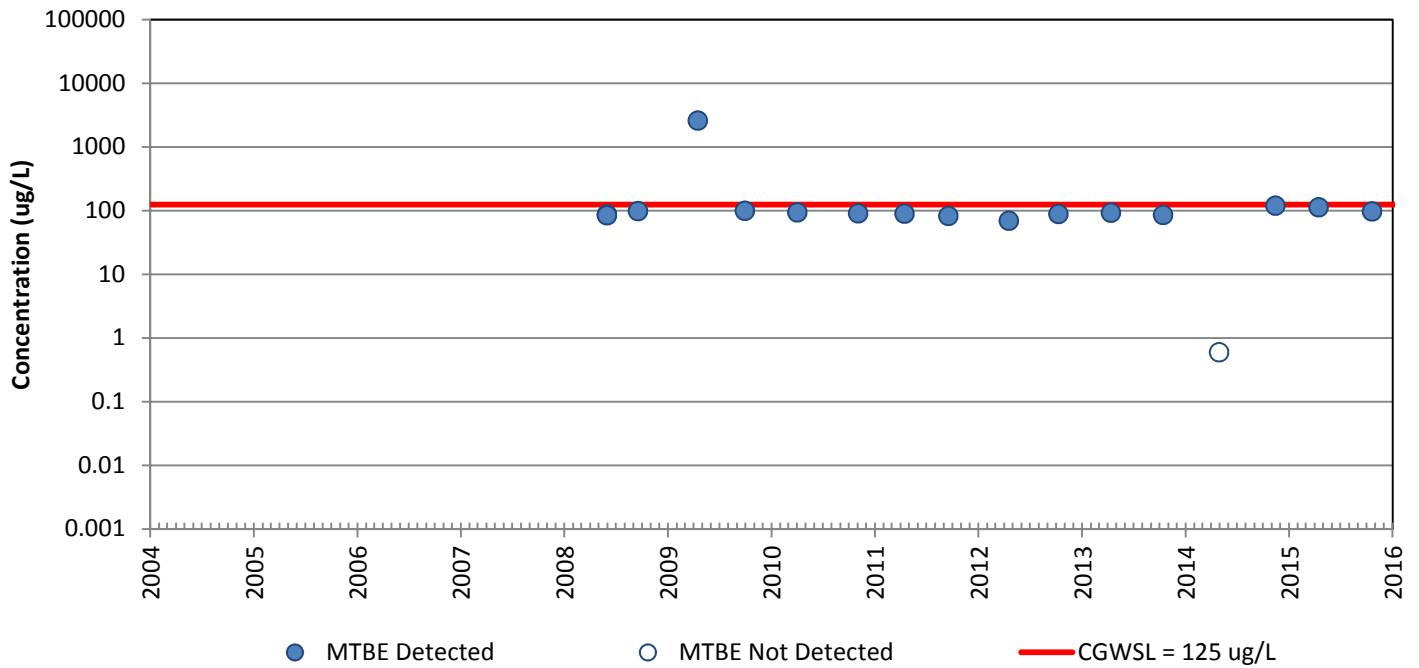


# MW-101

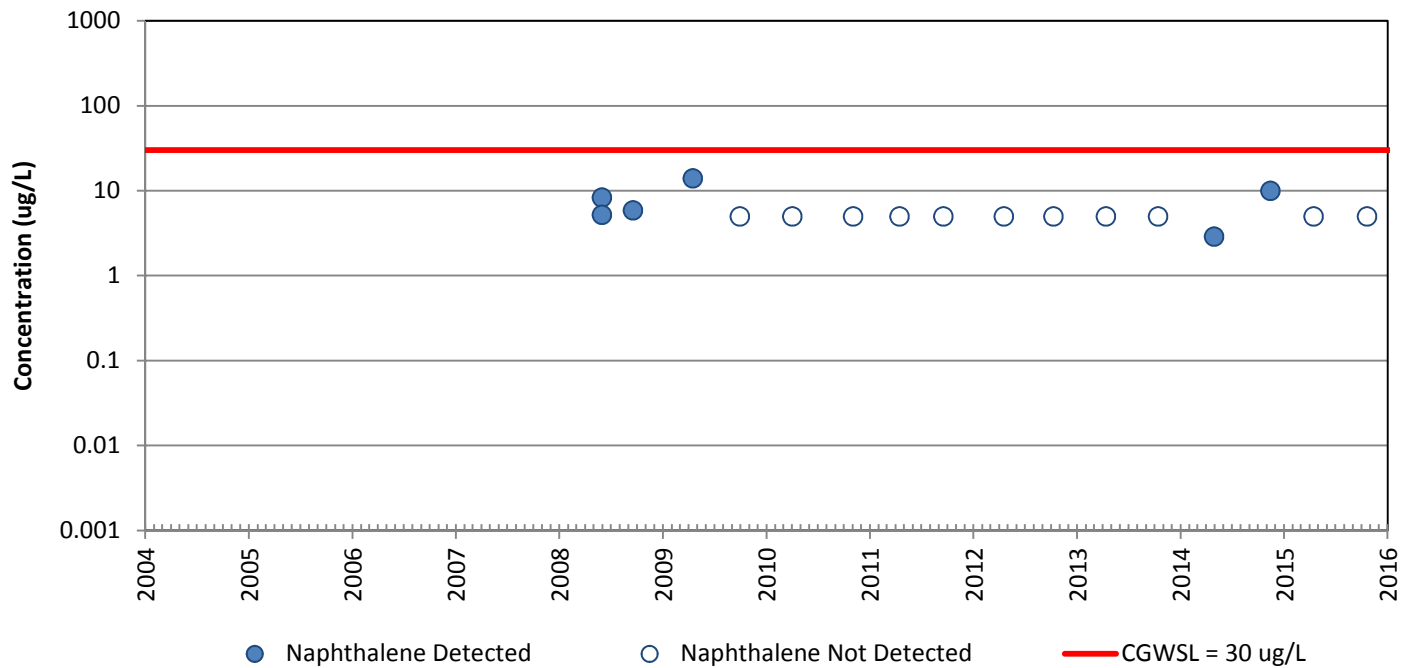


# MW-101

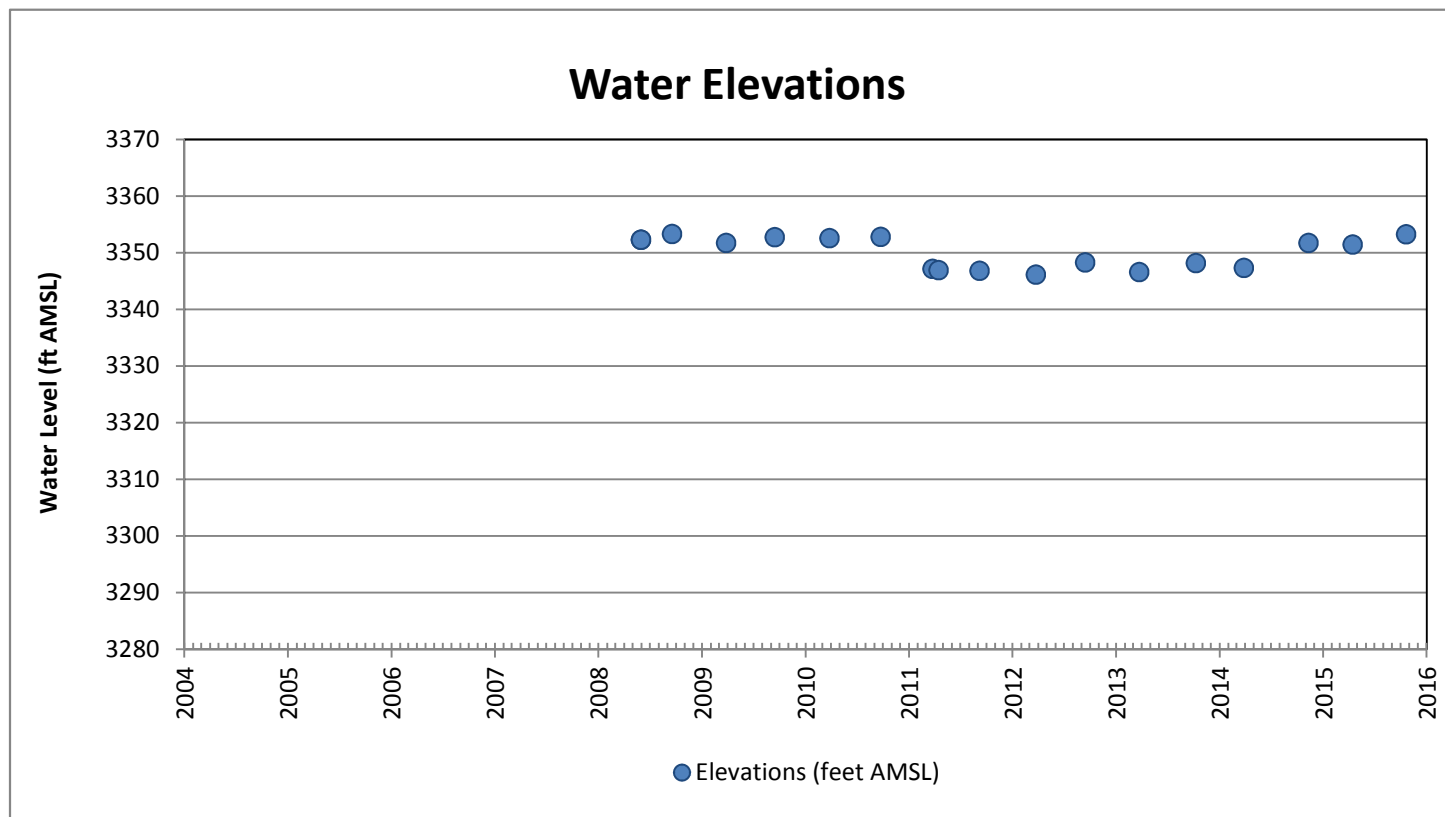
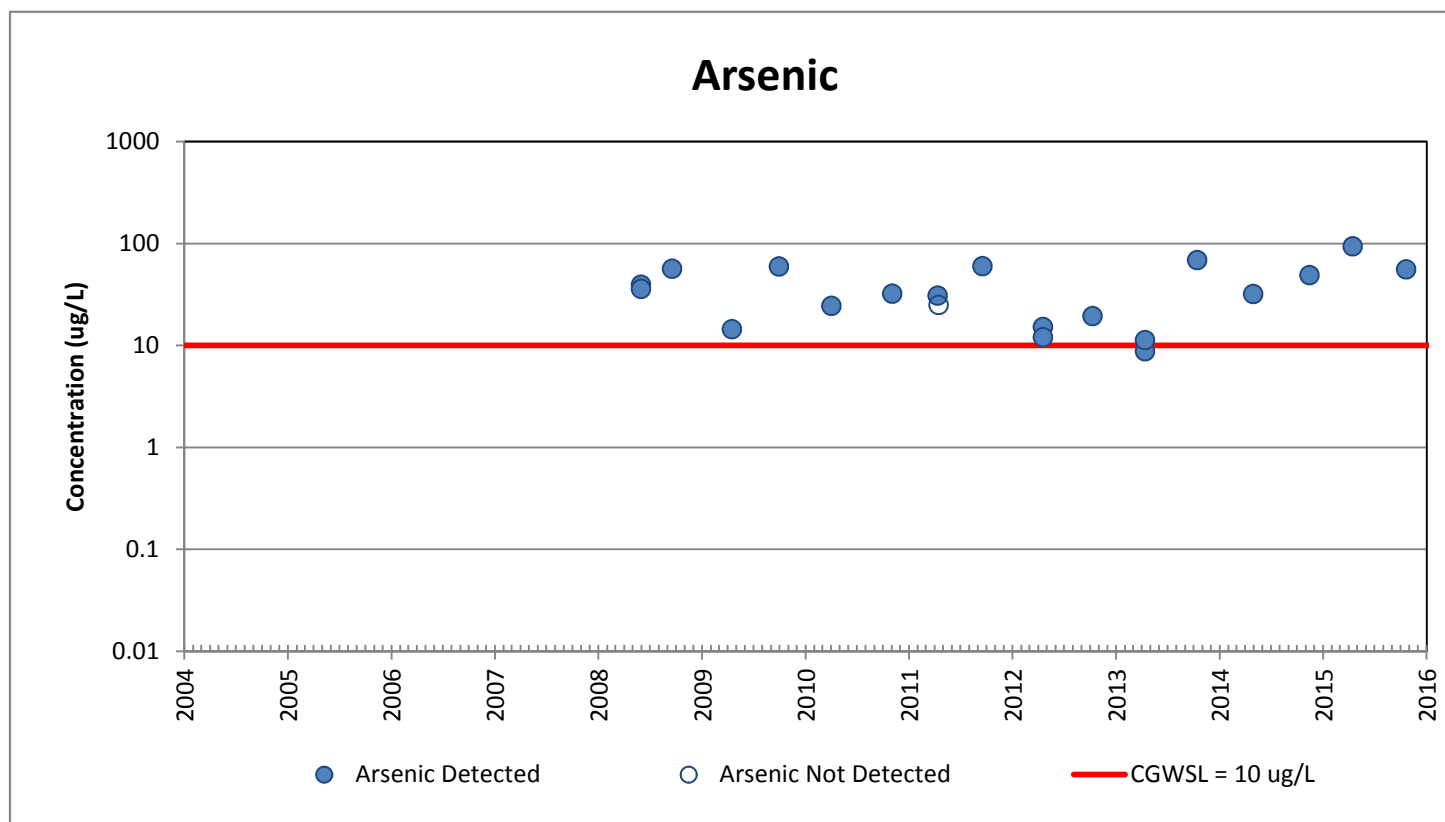
## MTBE



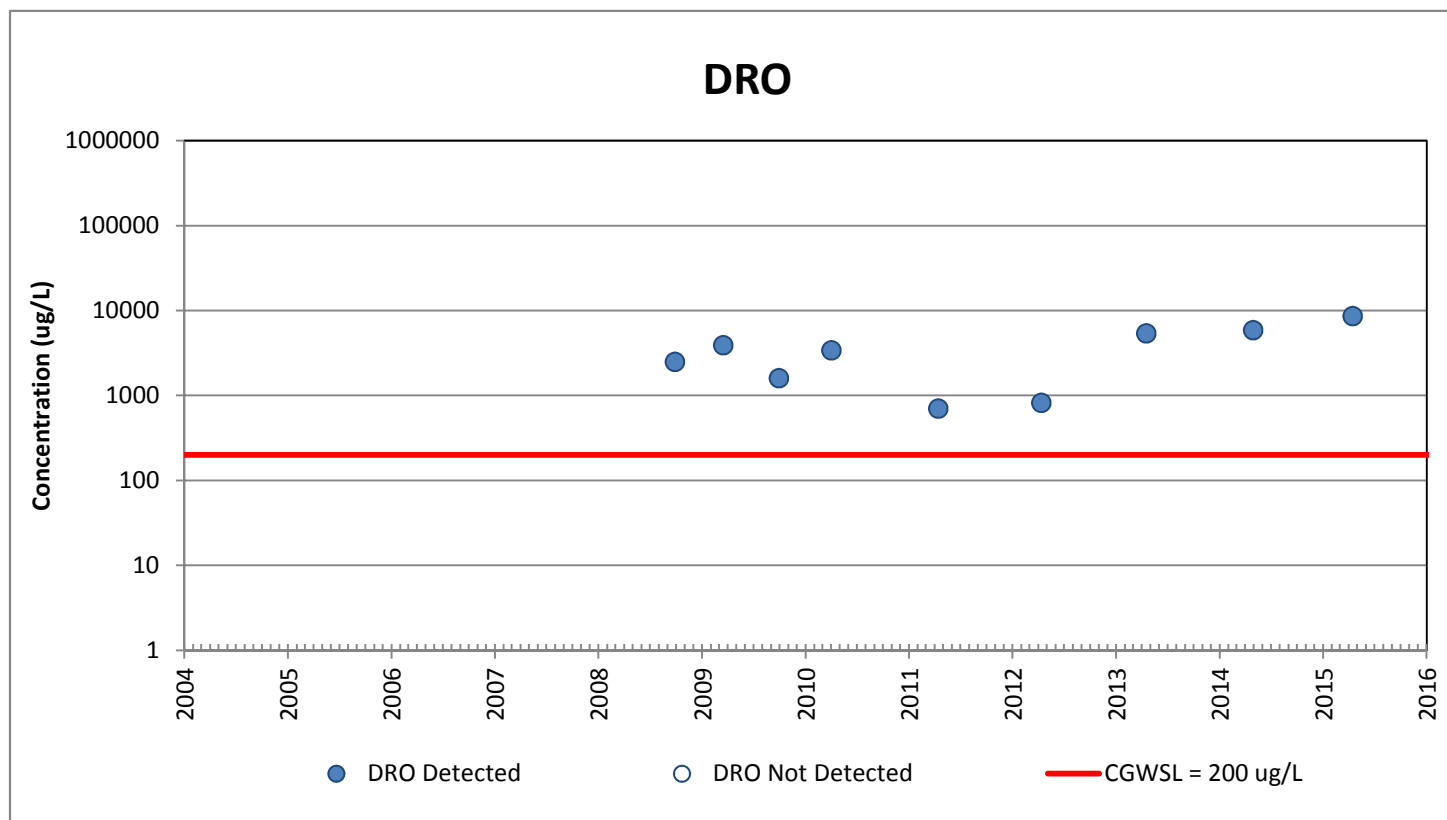
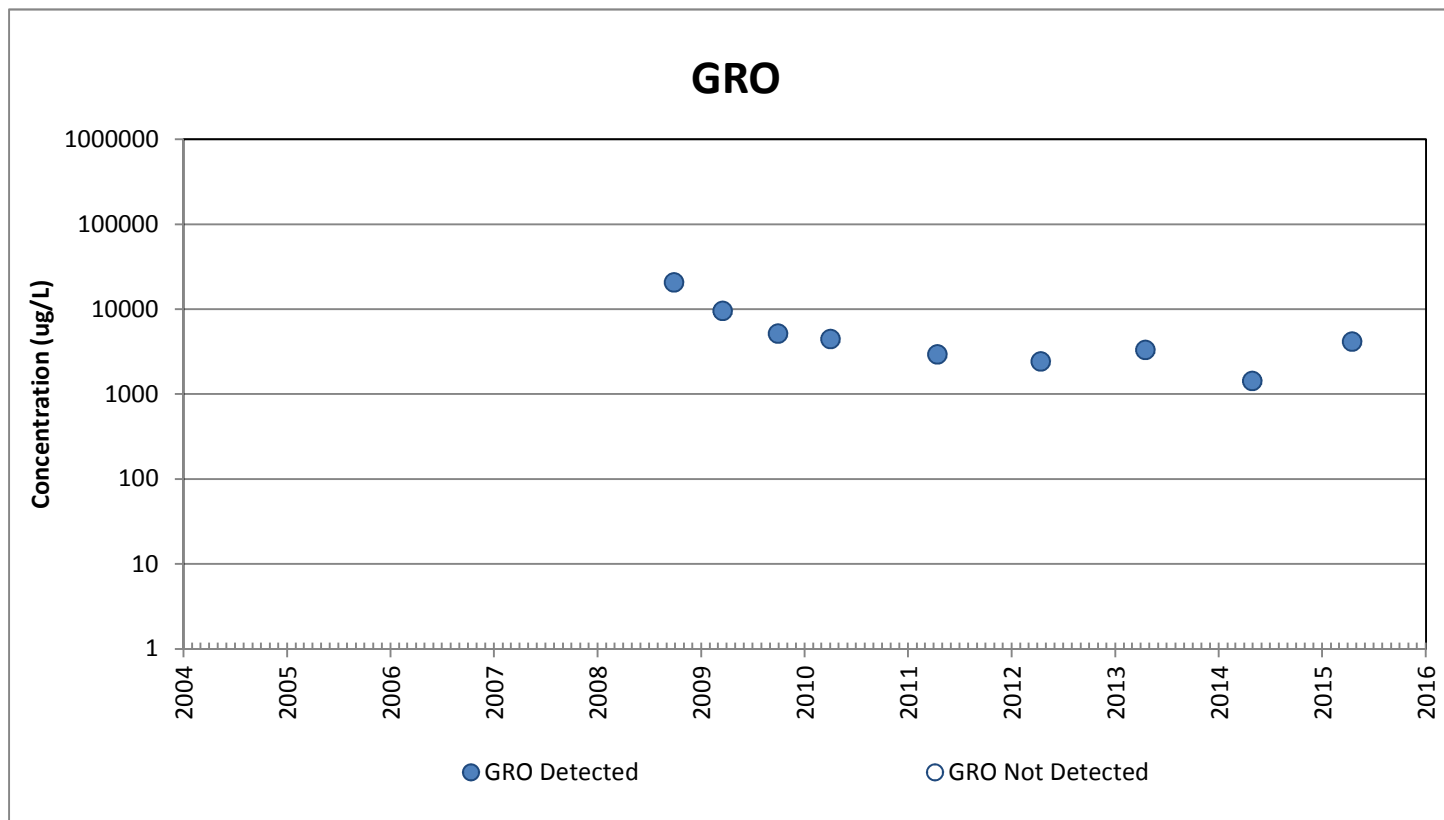
## Naphthalene



# MW-101

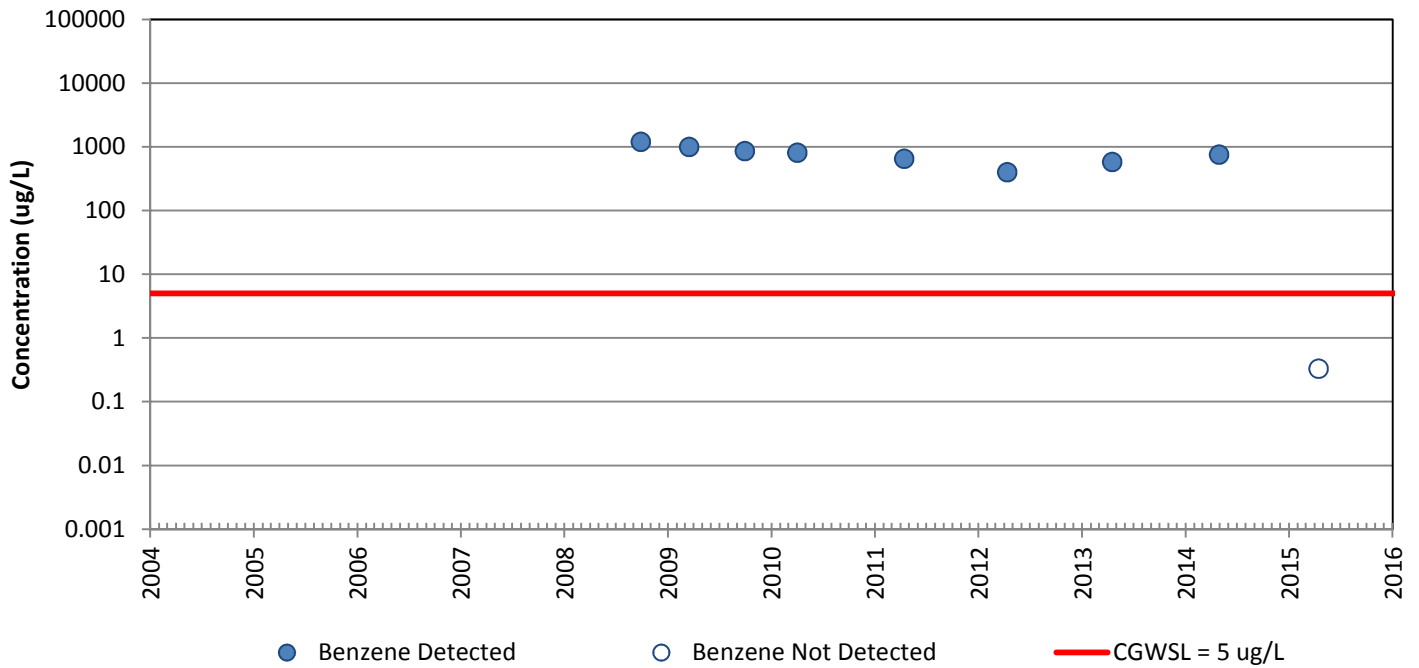


# MW-103

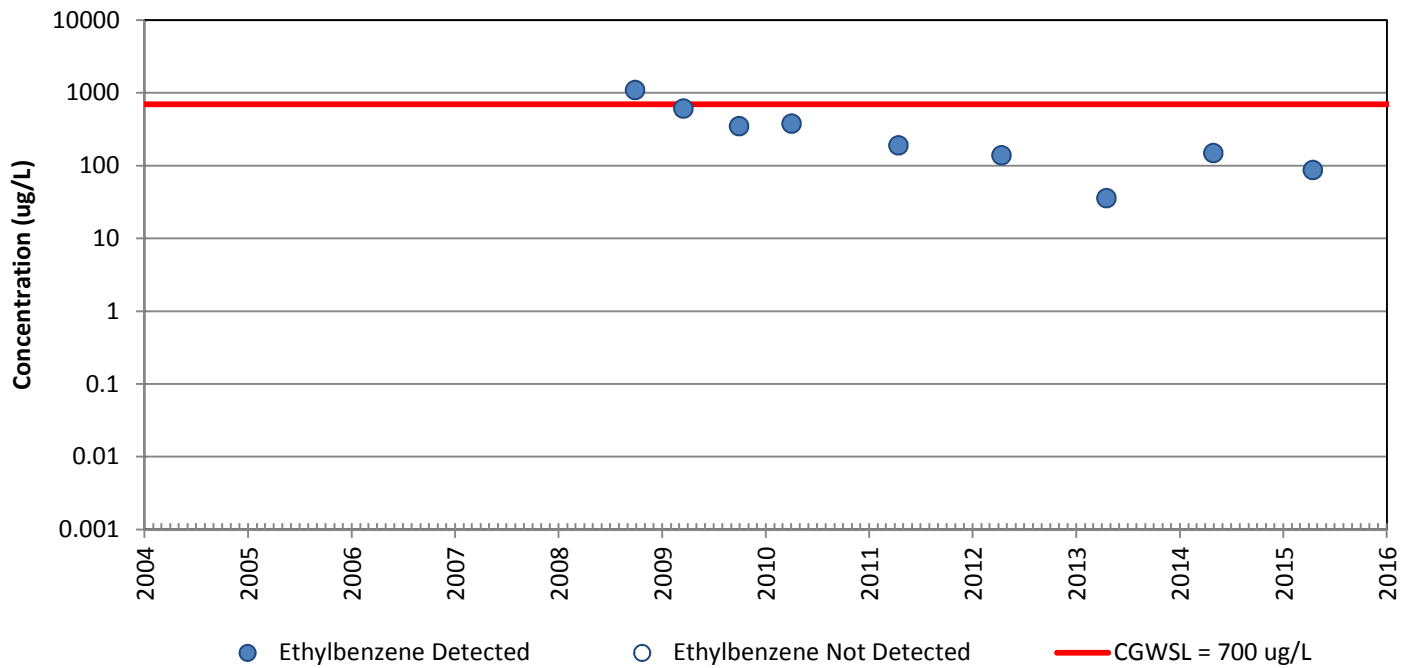


# MW-103

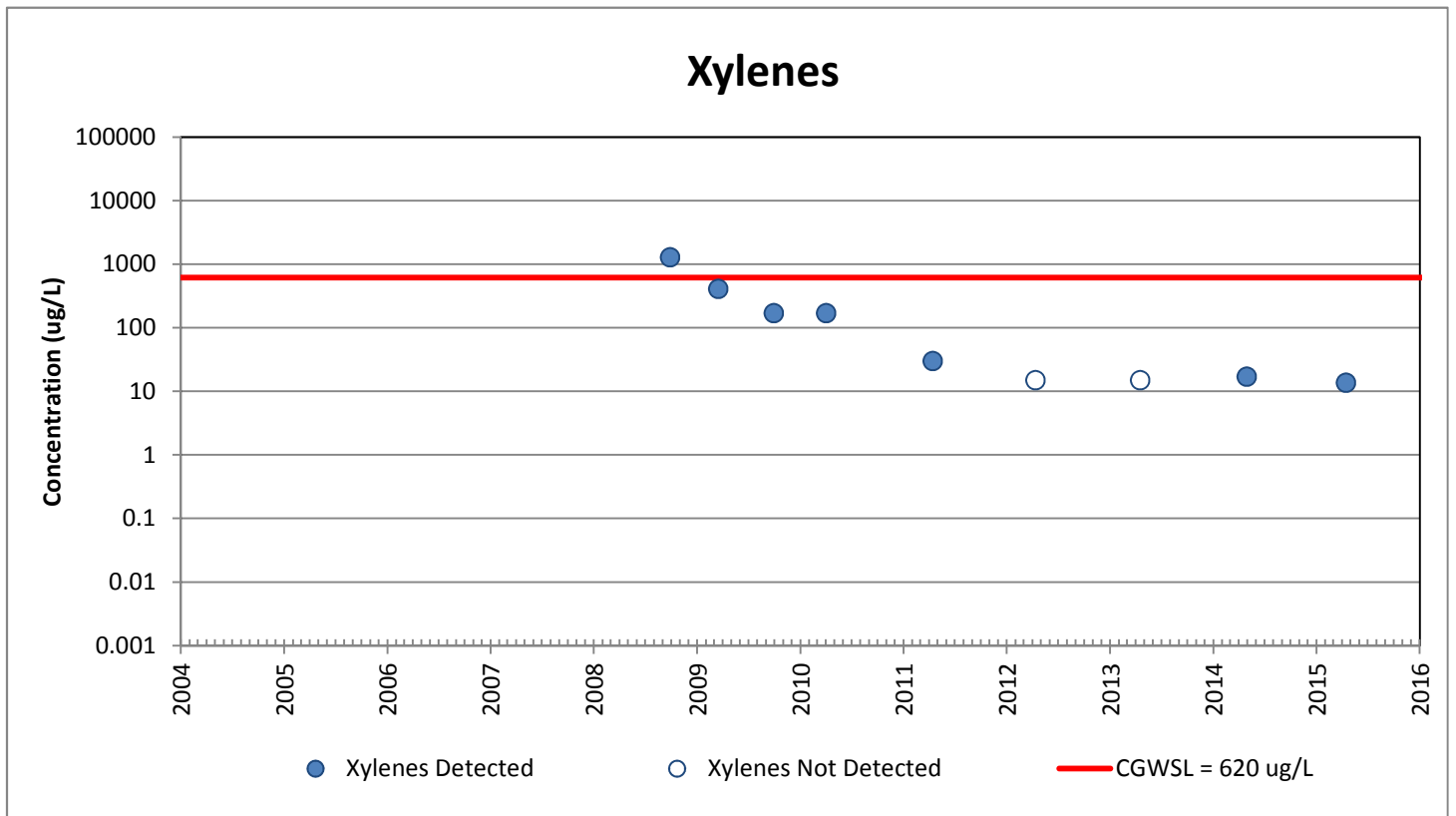
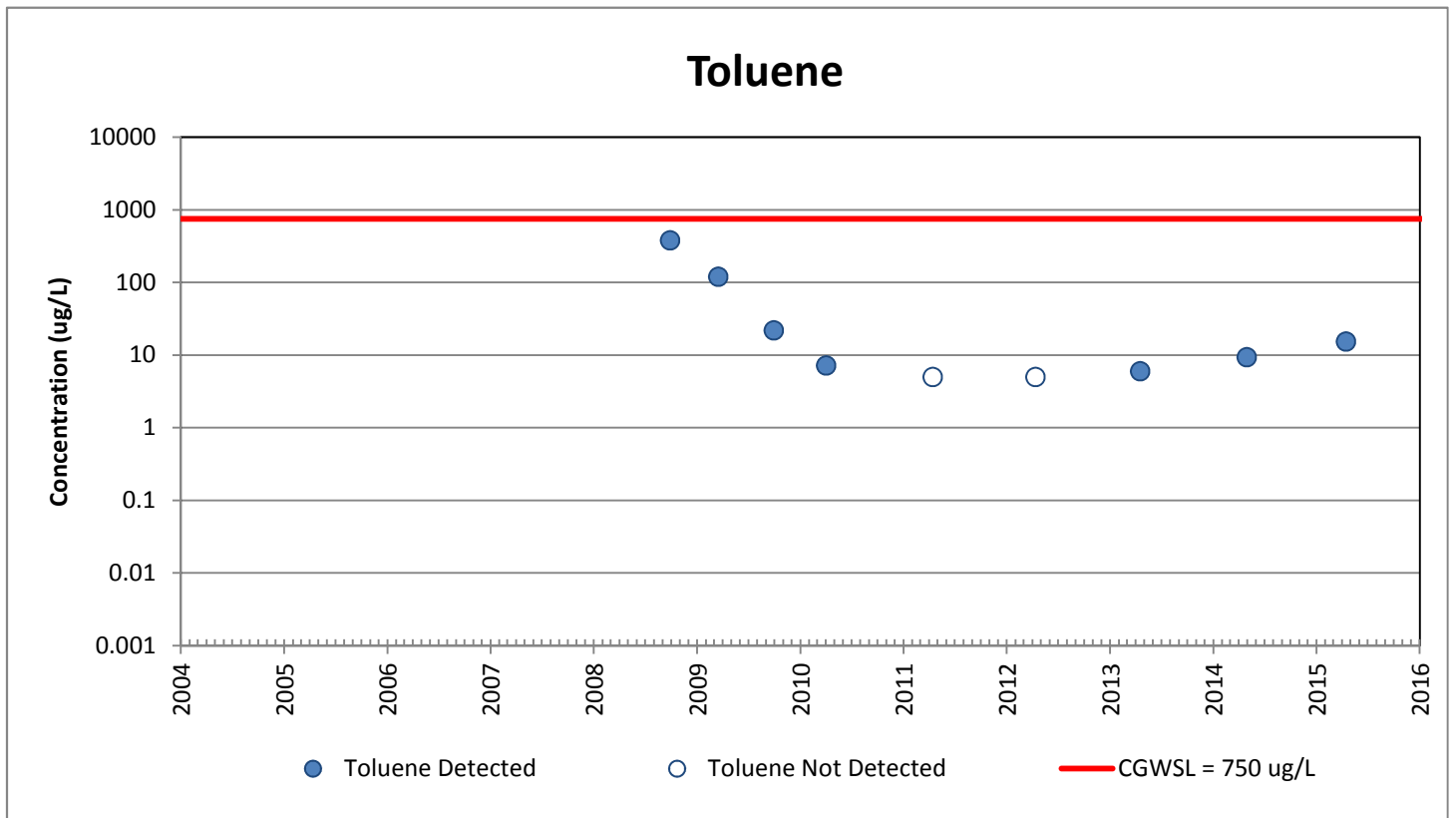
## Benzene



## Ethylbenzene

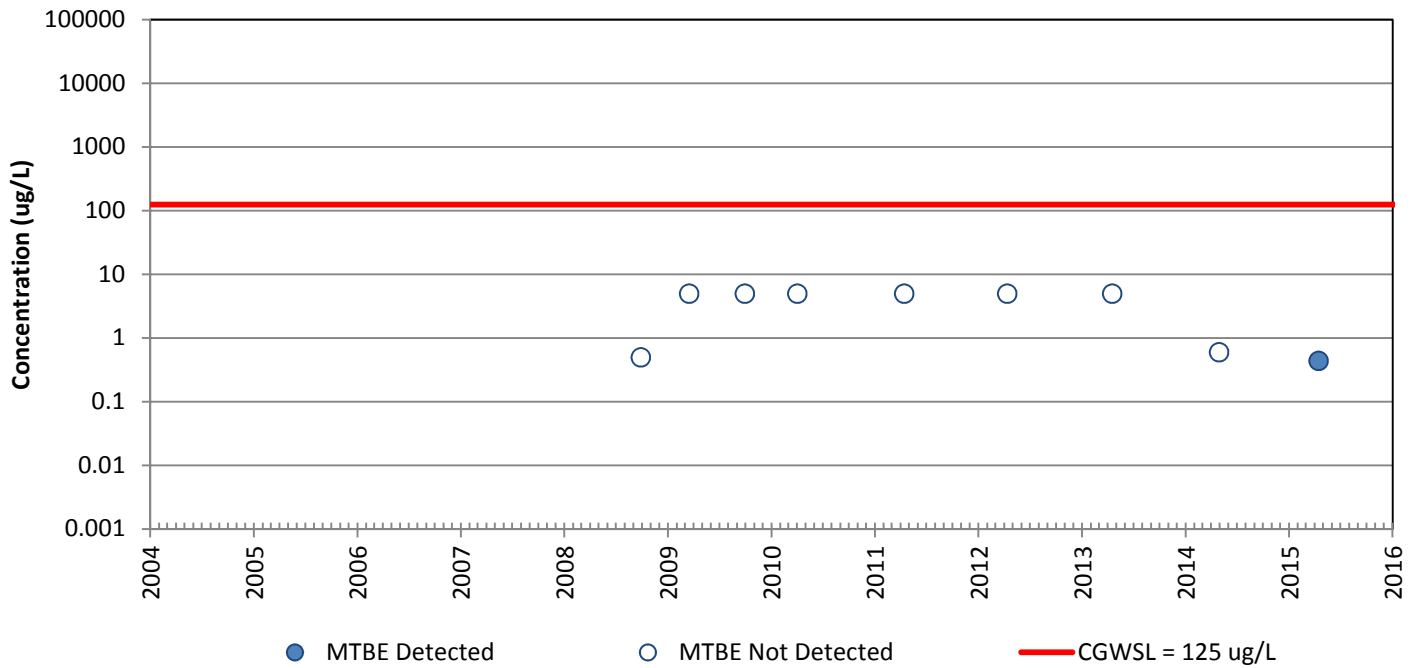


# MW-103

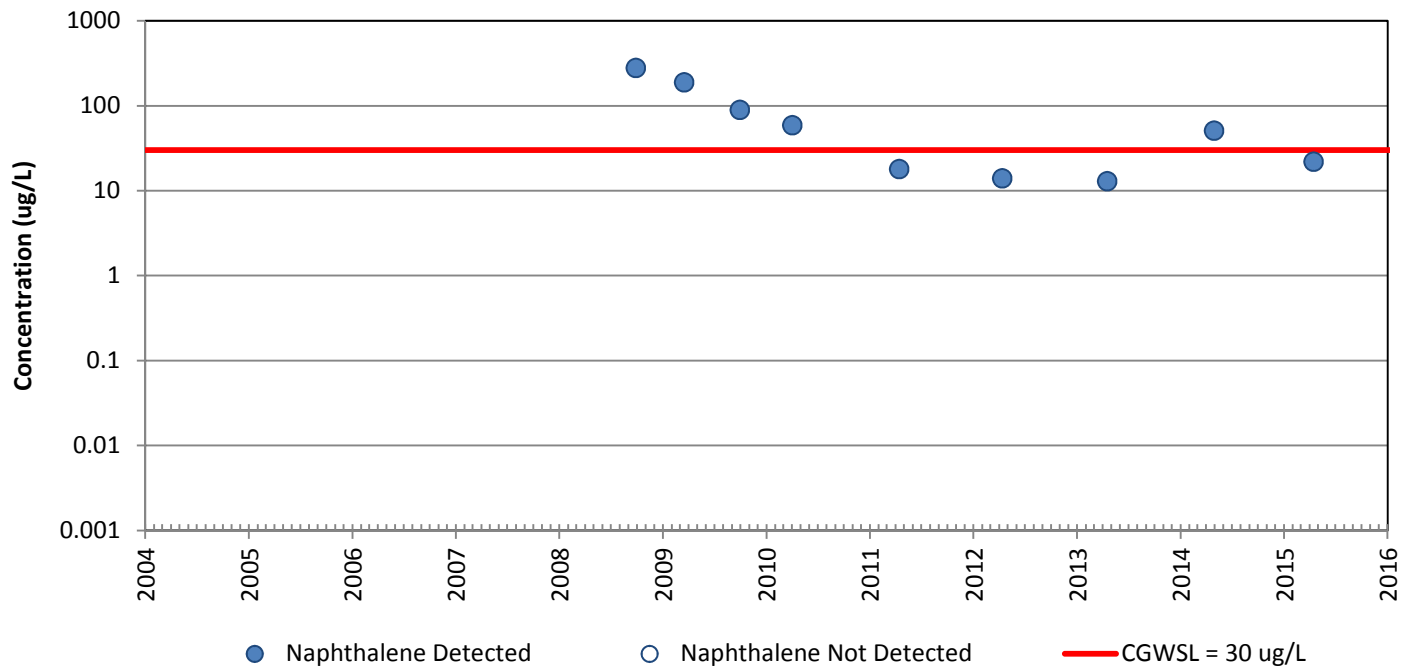


# MW-103

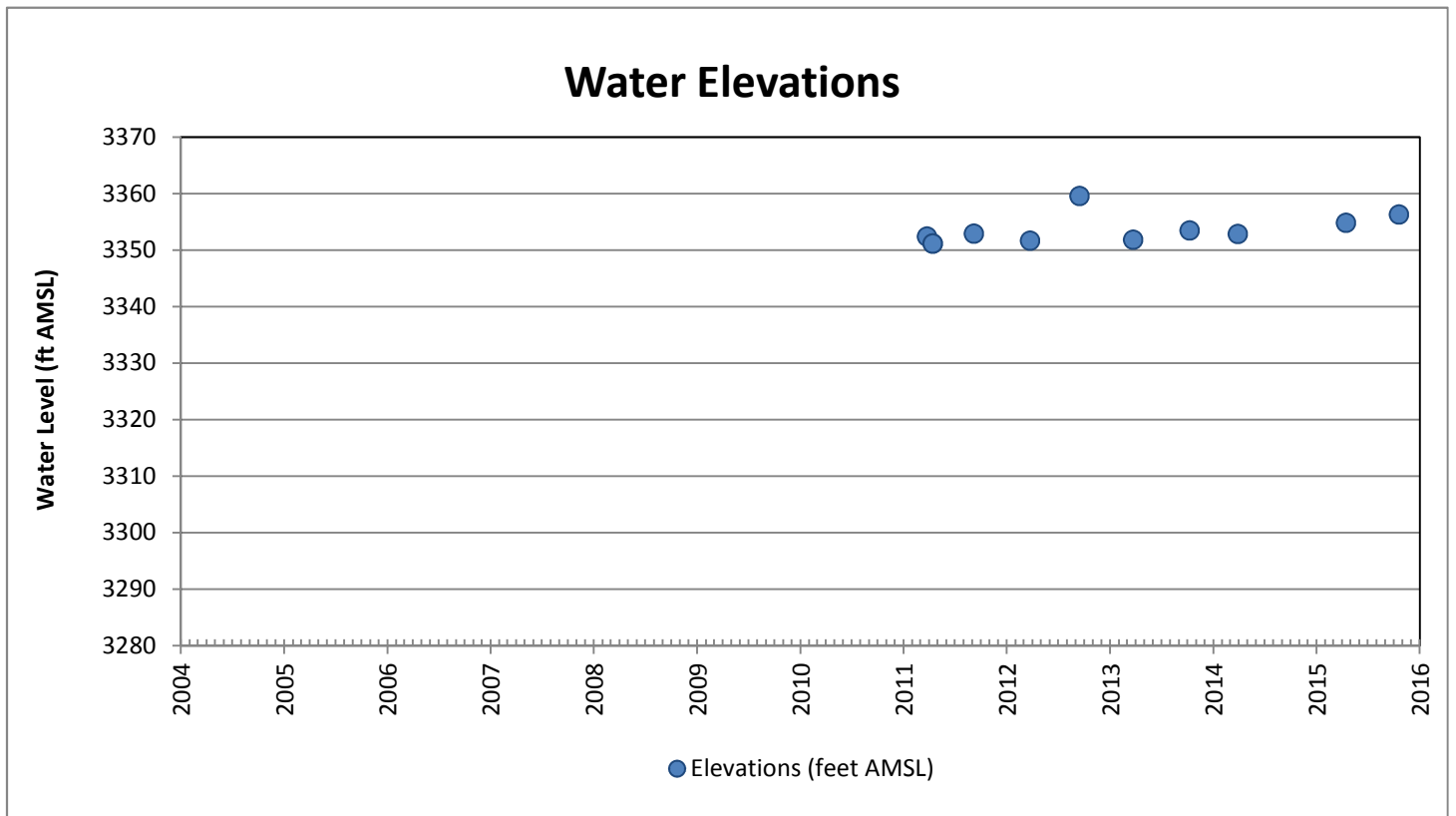
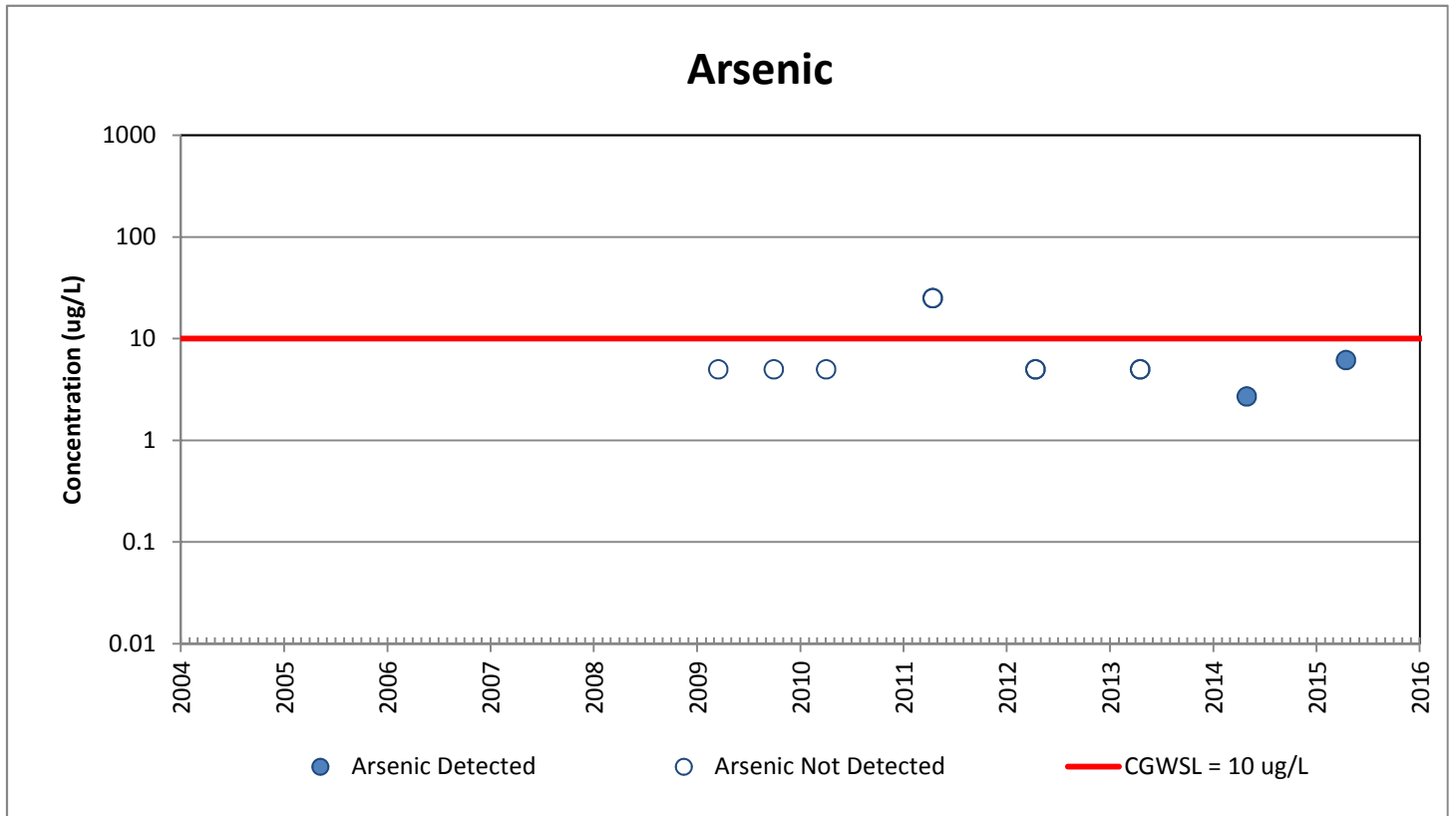
## MTBE



## Naphthalene

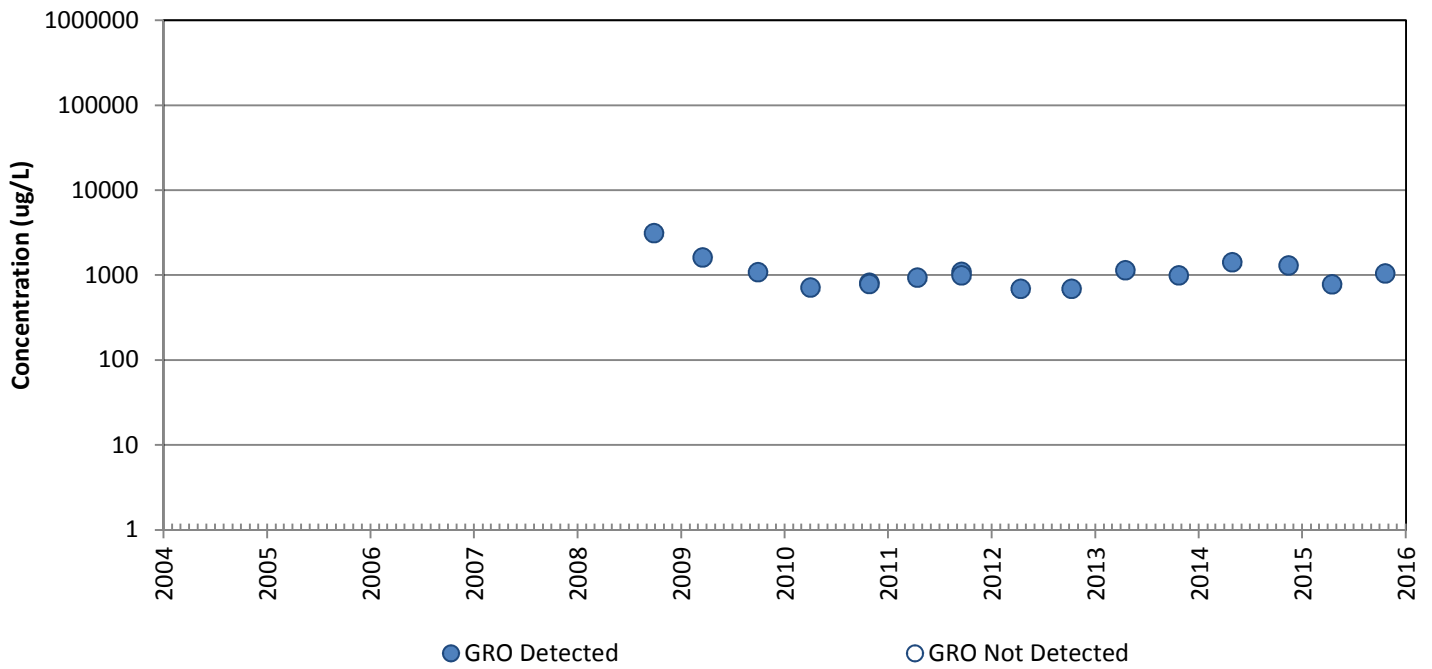


# MW-103

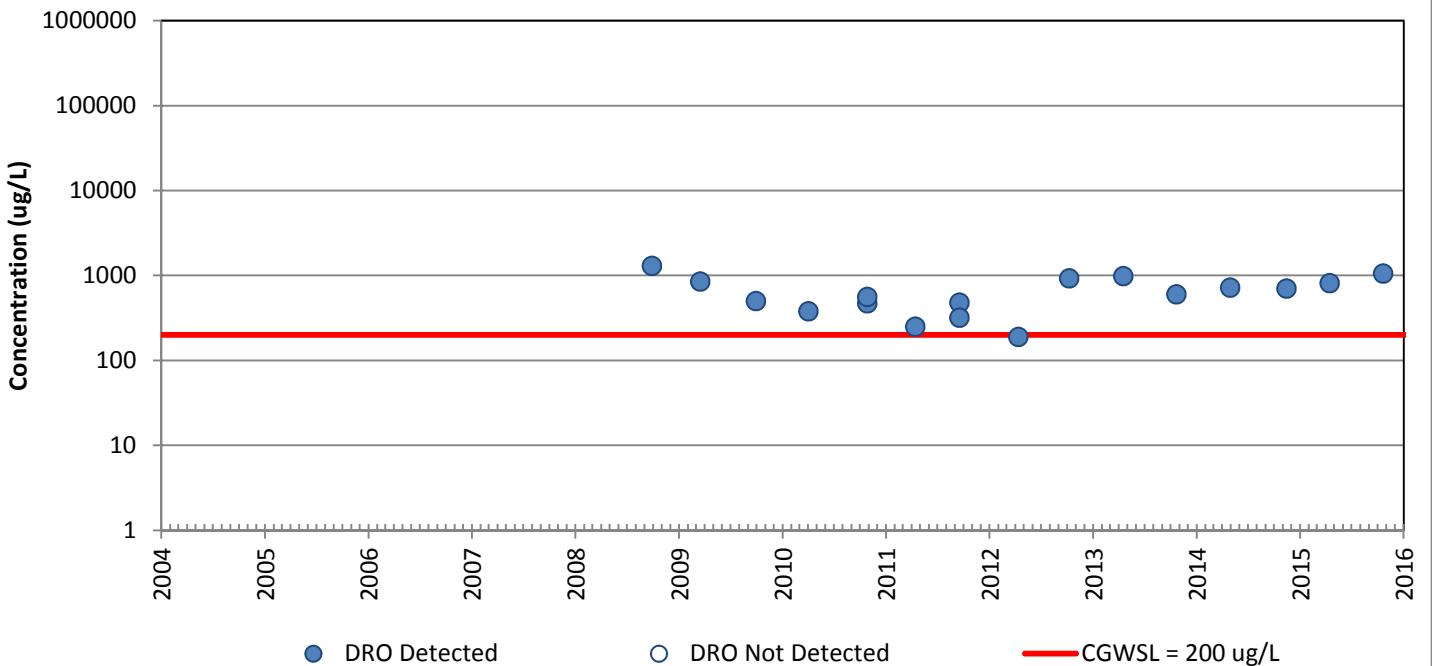


# MW-104

## GRO

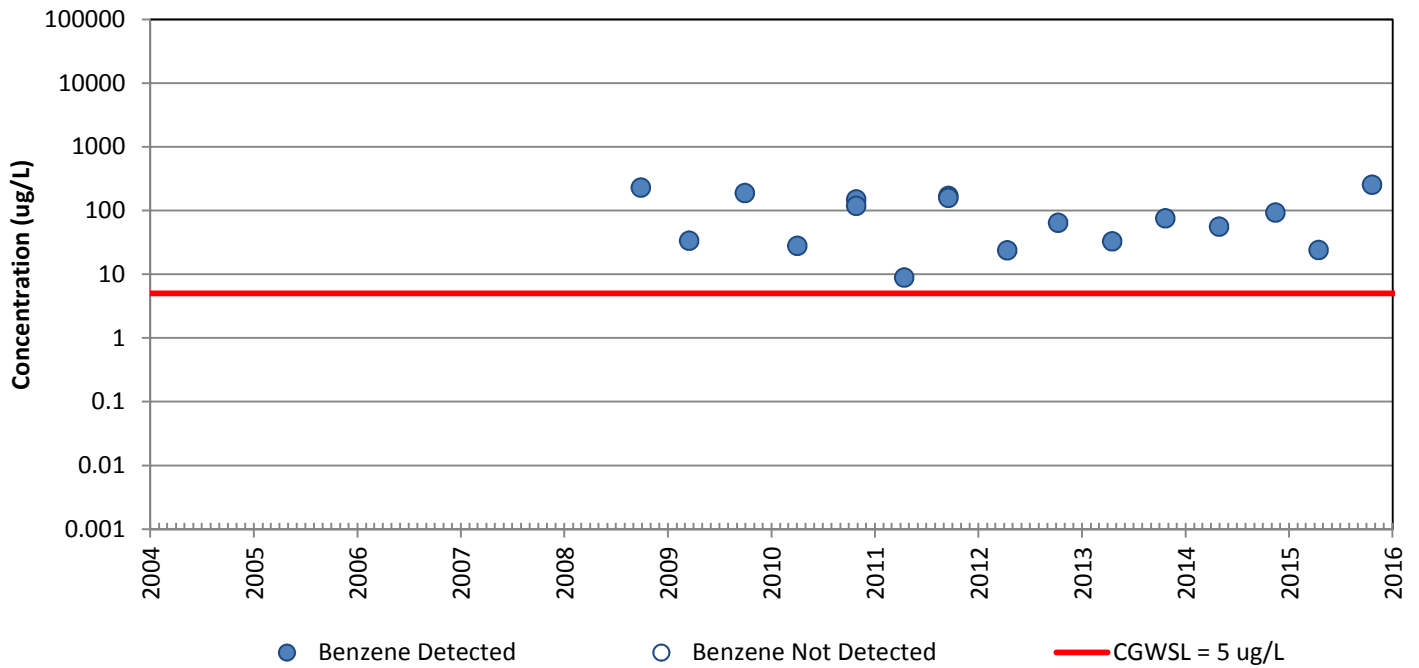


## DRO

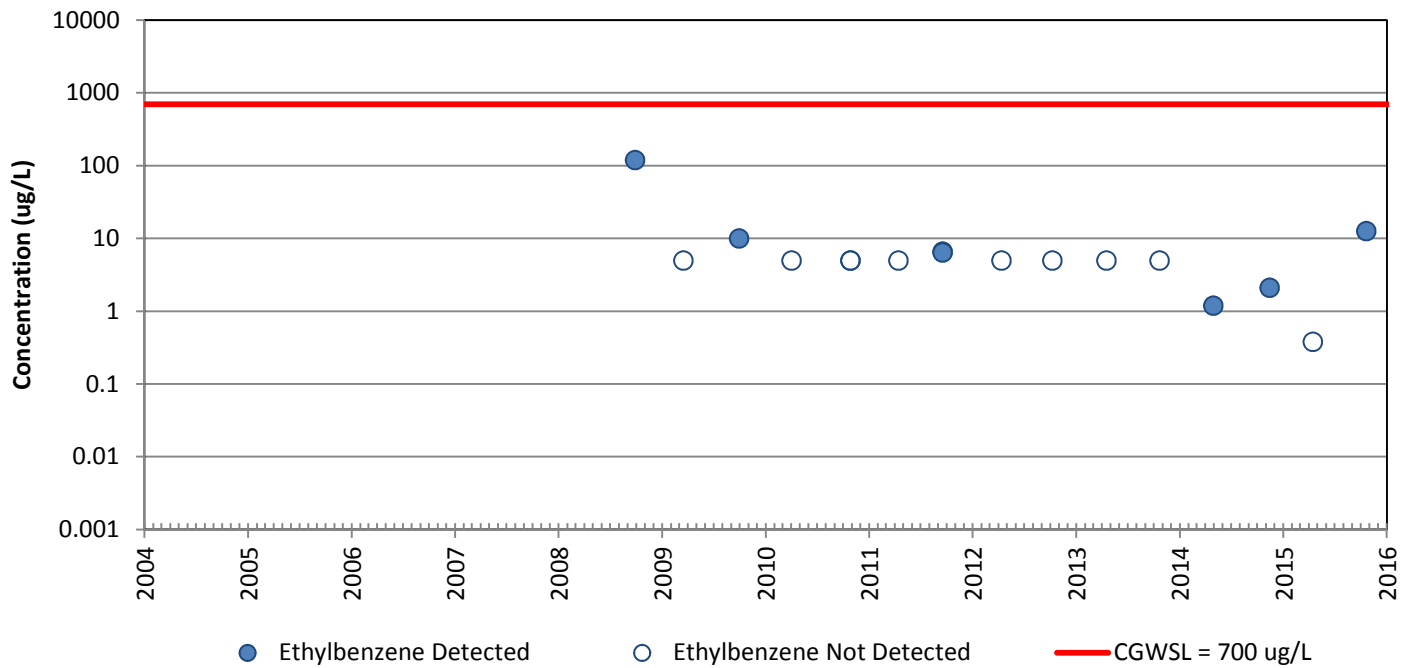


# MW-104

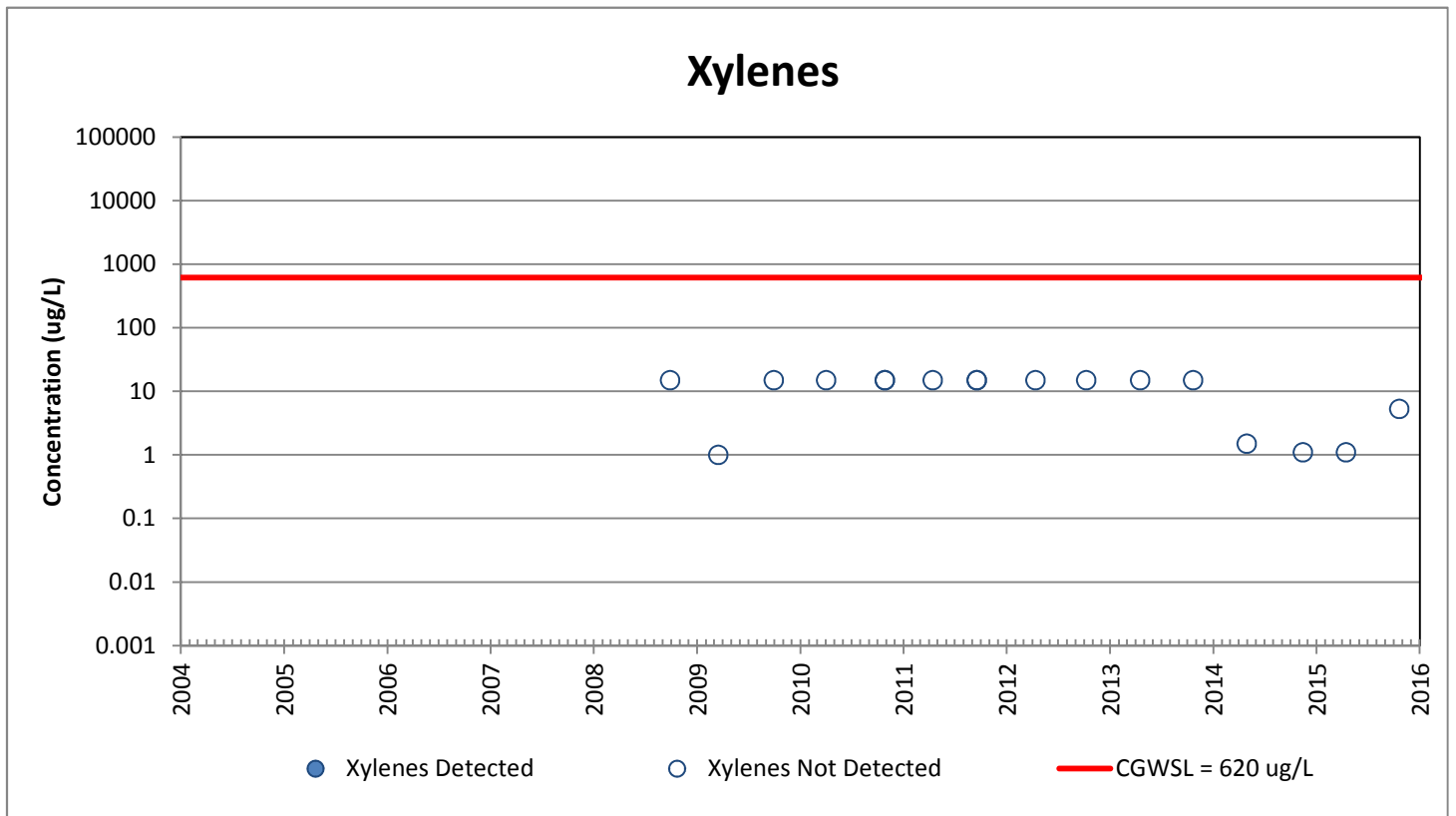
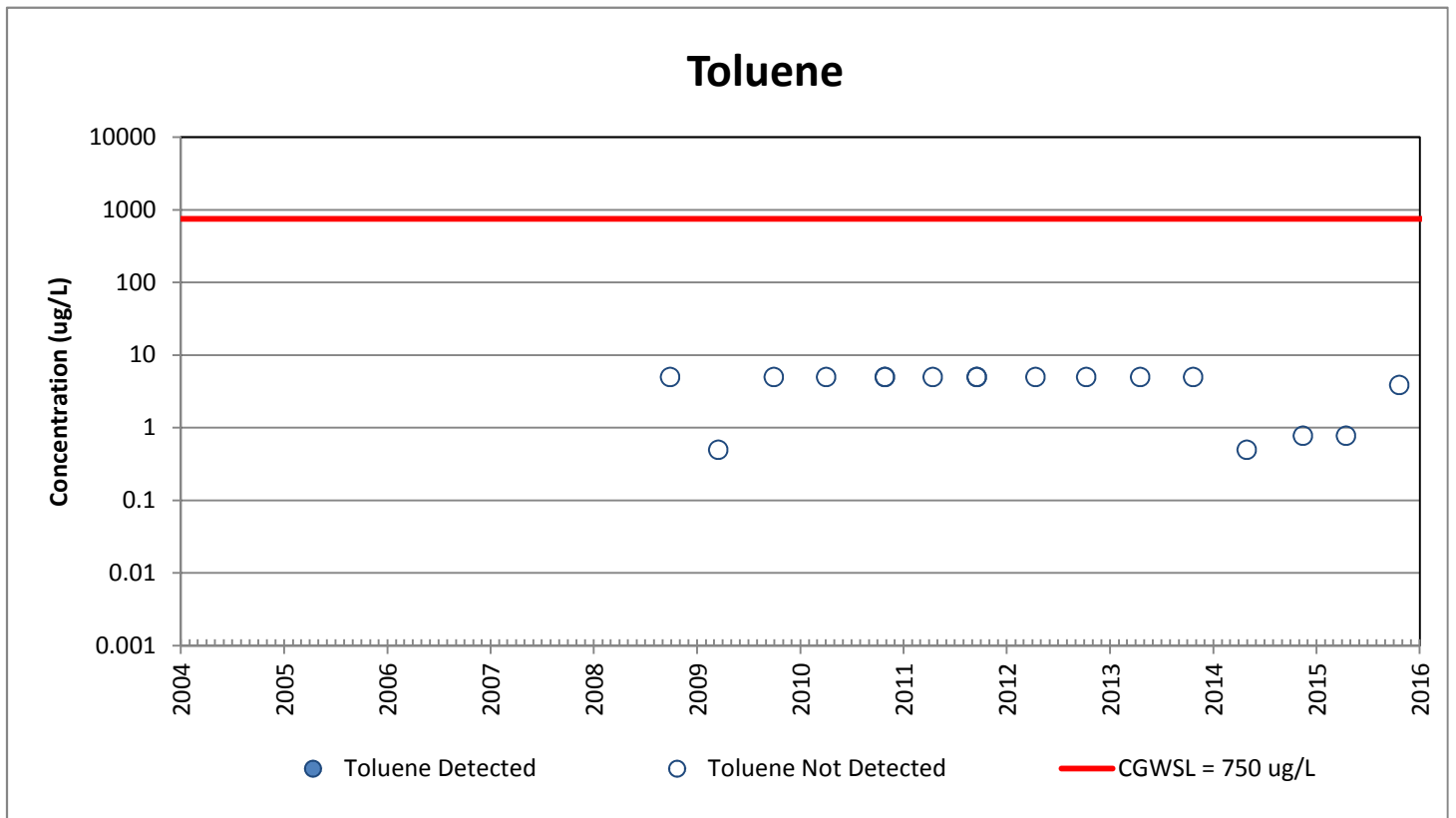
## Benzene



## Ethylbenzene

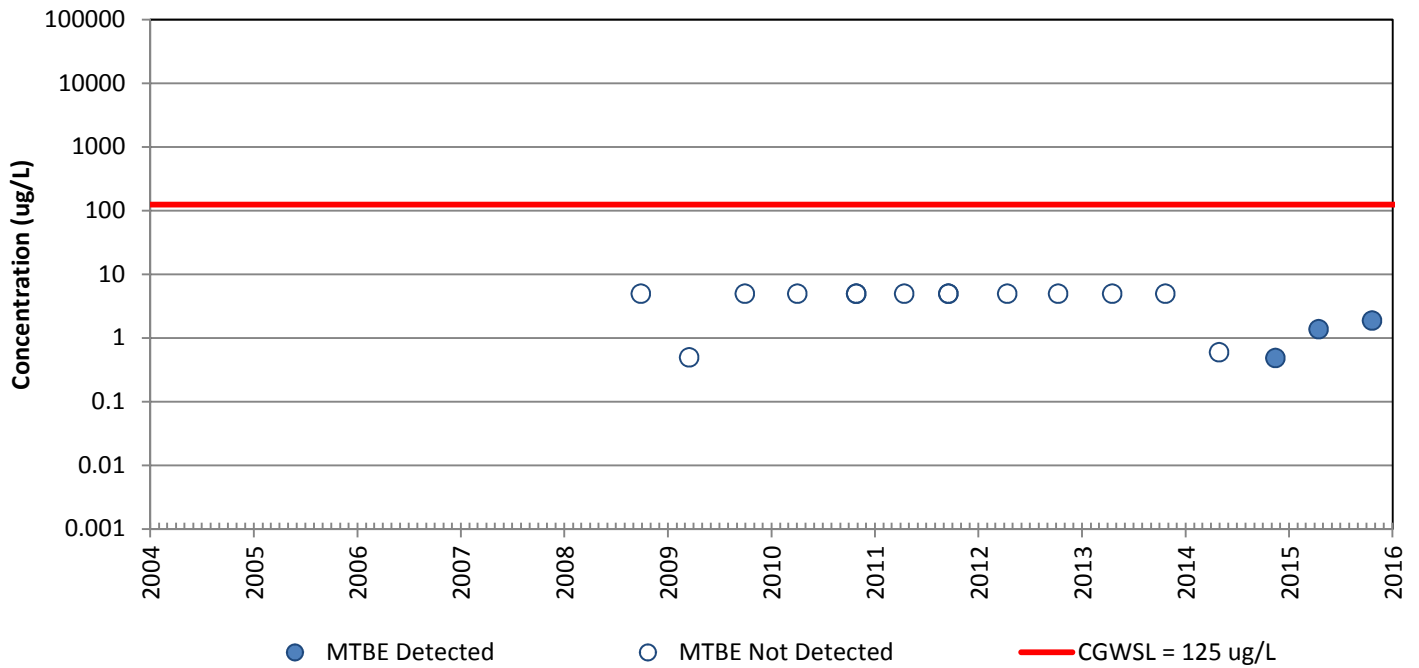


# MW-104

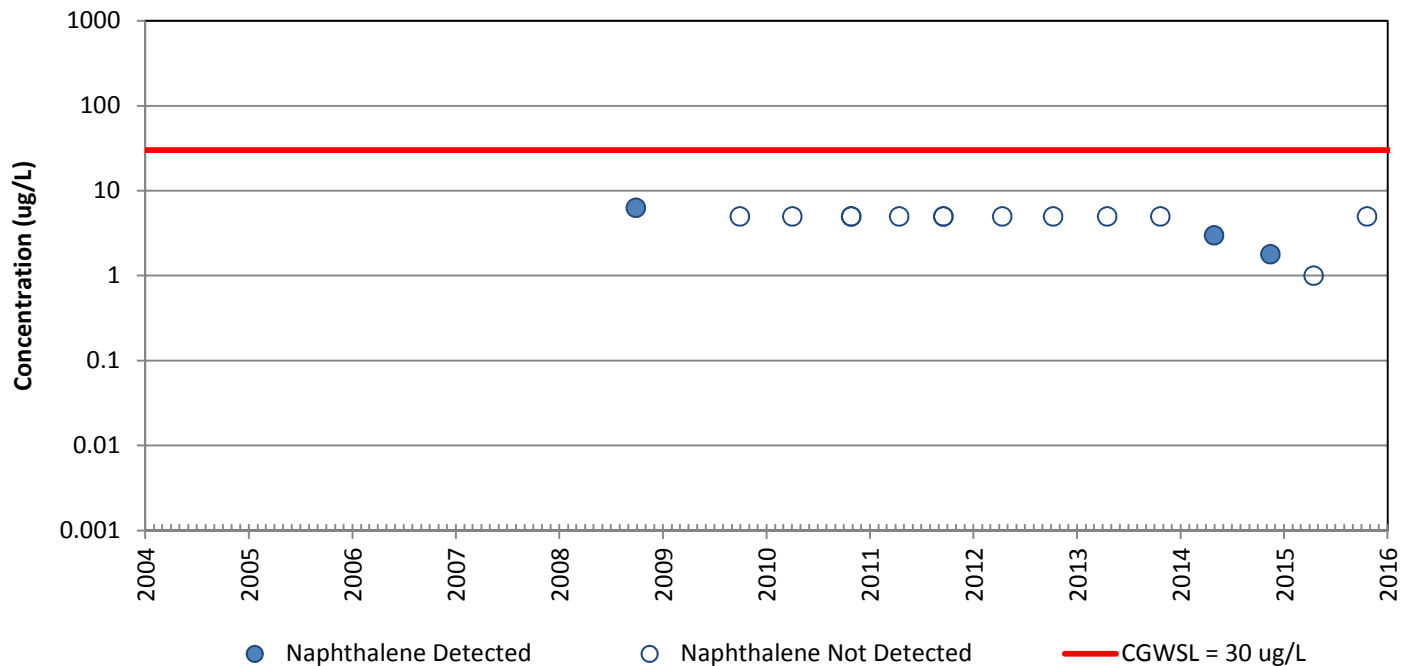


# MW-104

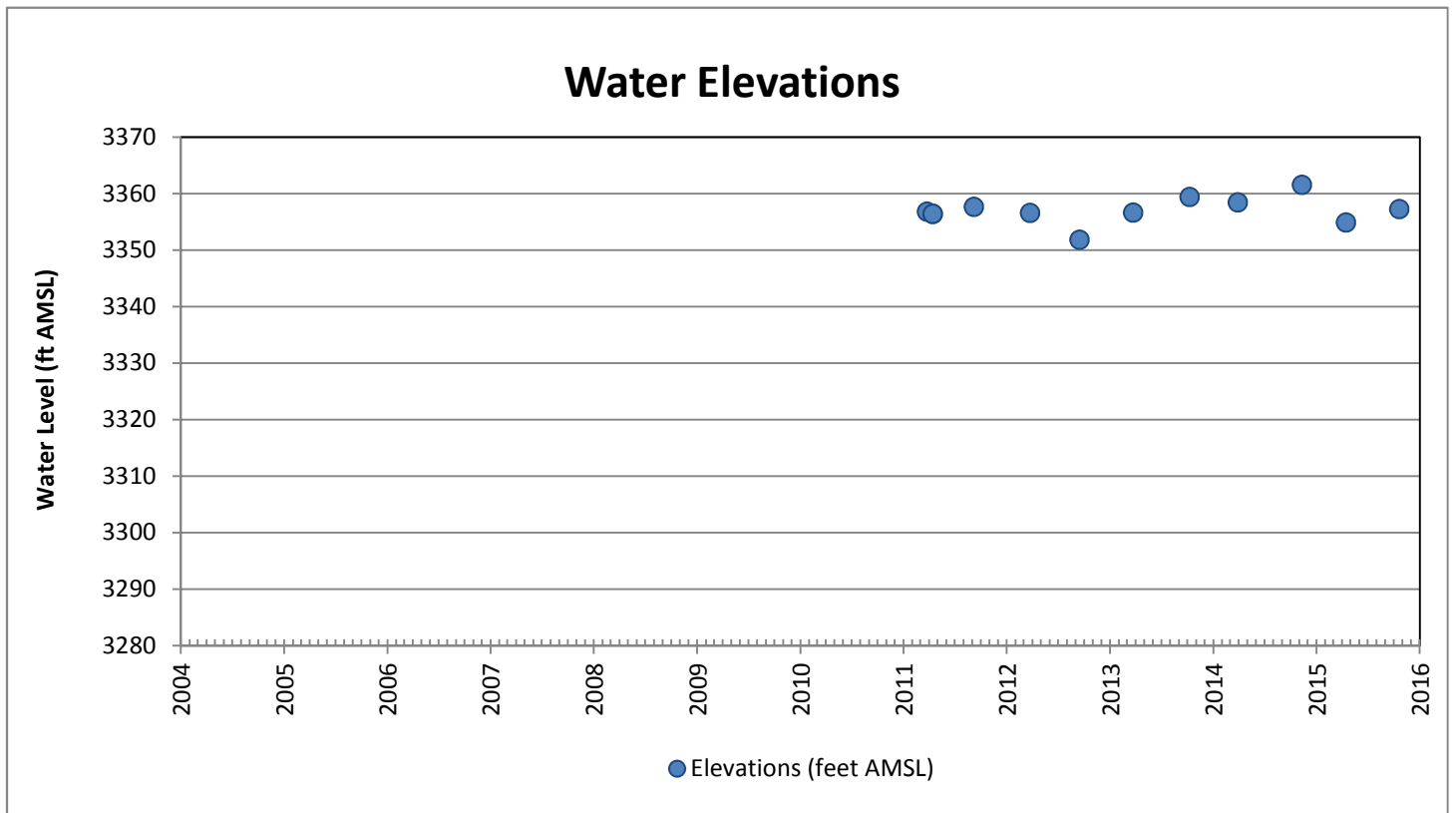
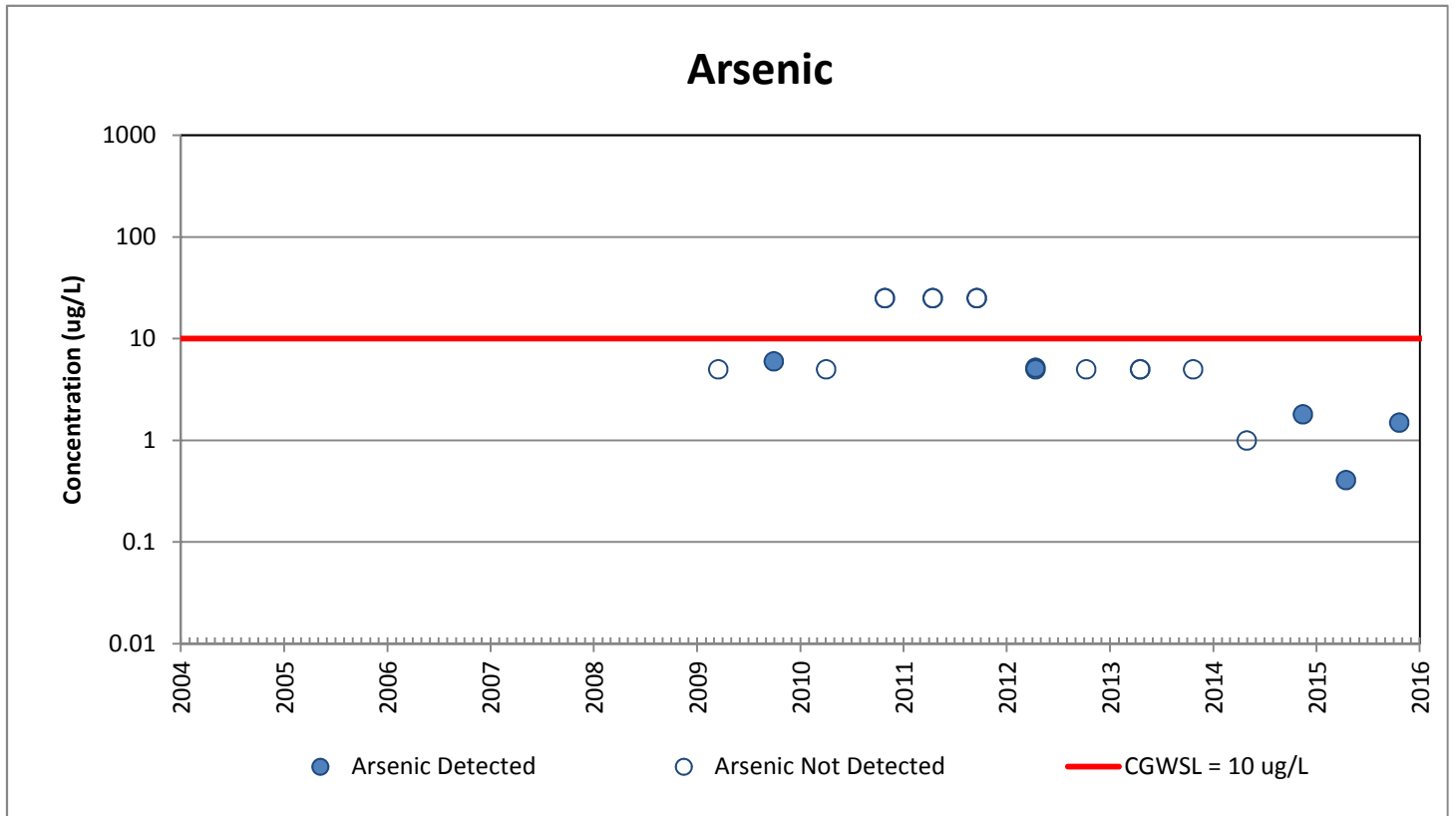
## MTBE



## Naphthalene

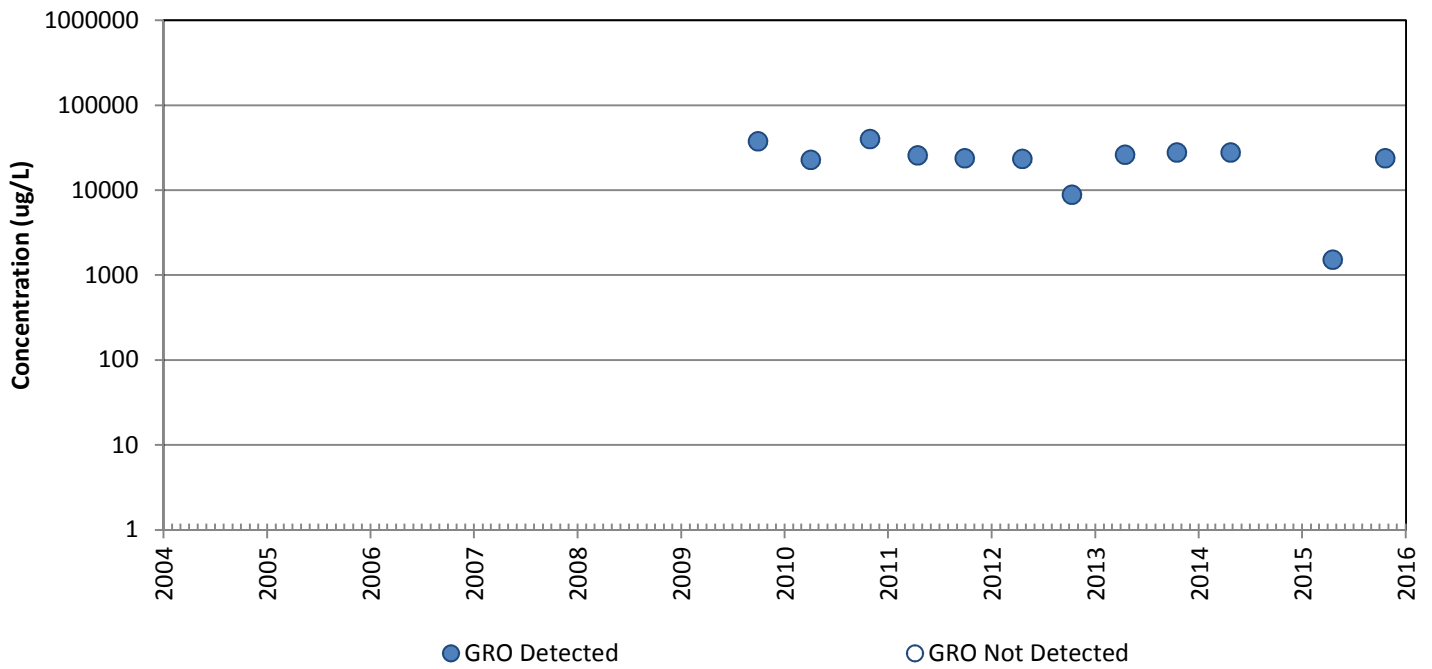


# MW-104

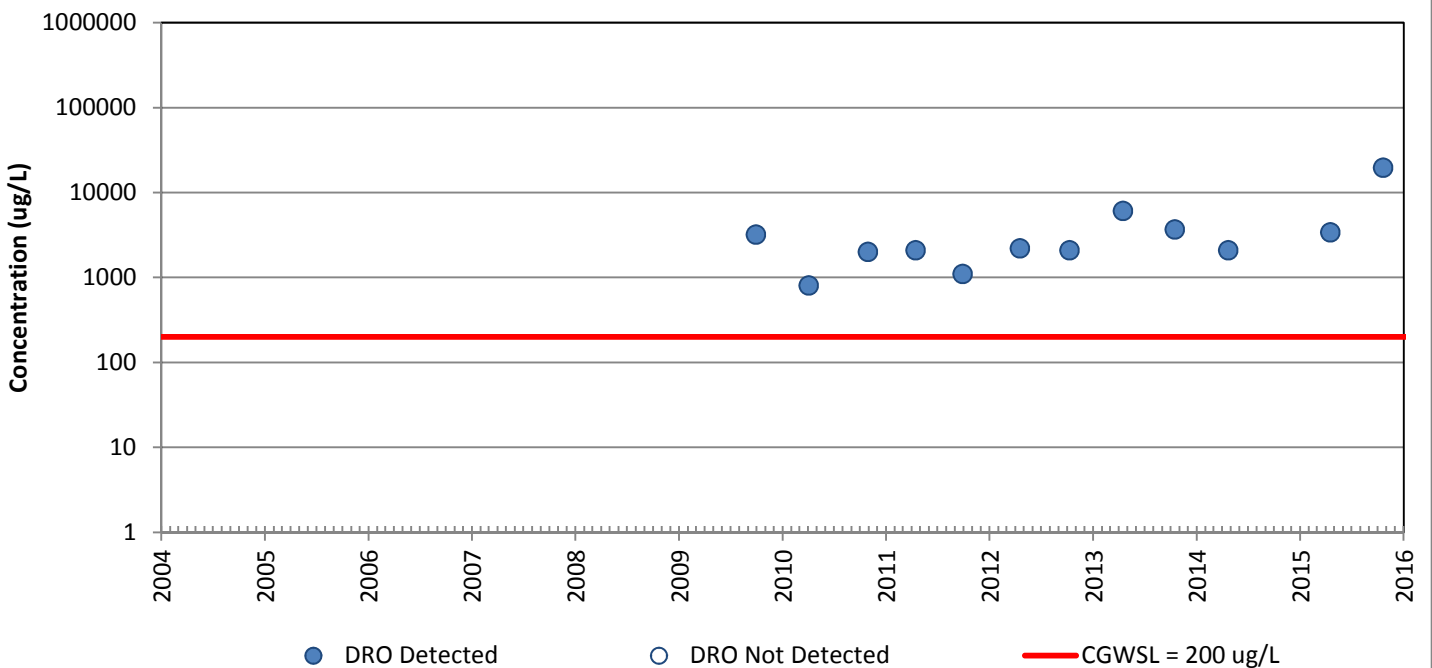


# MW-106

## GRO

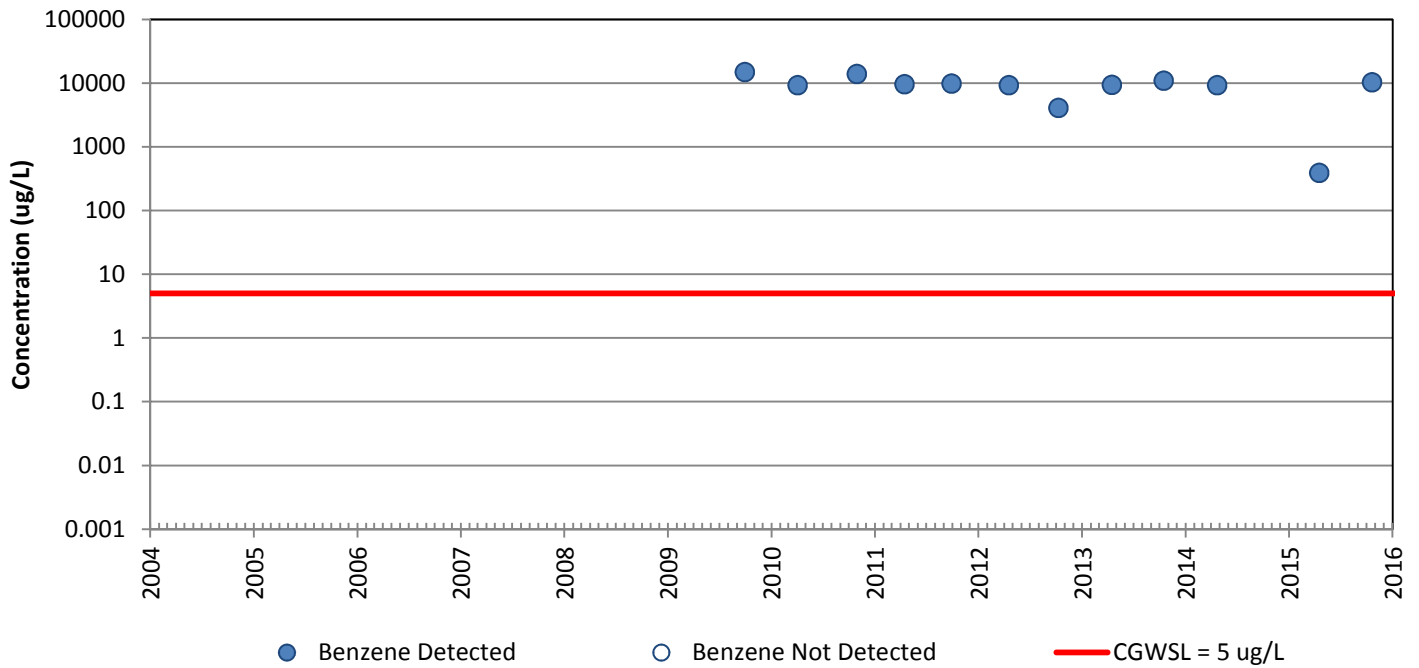


## DRO

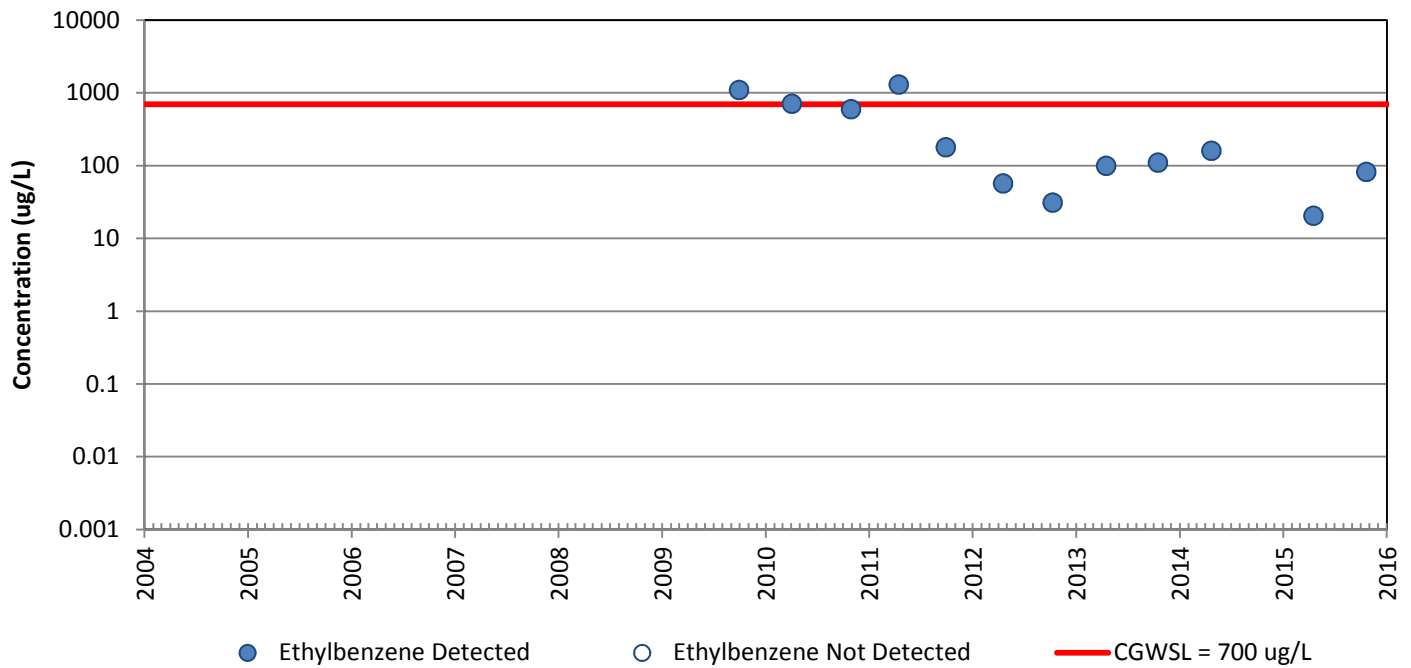


# MW-106

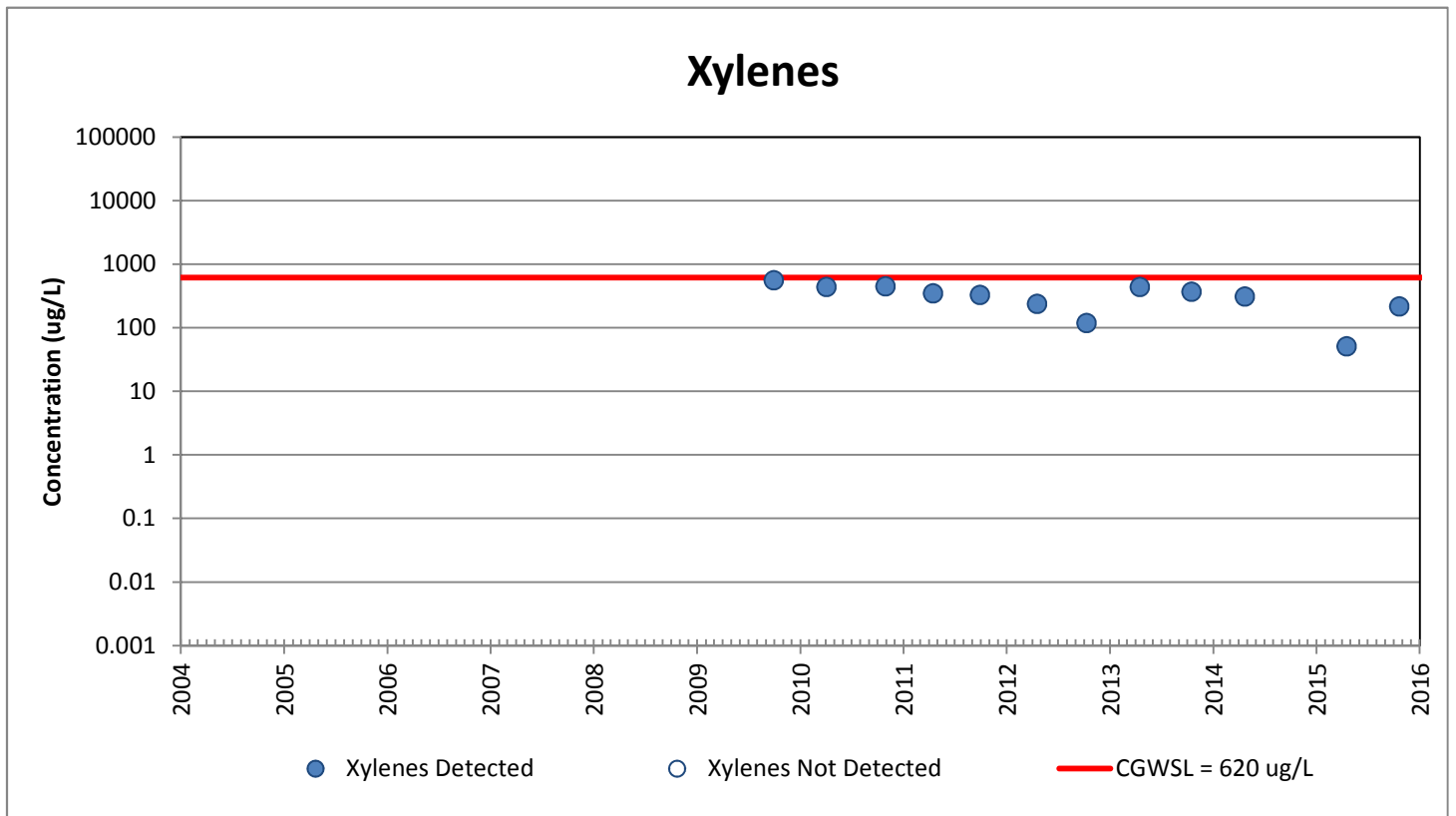
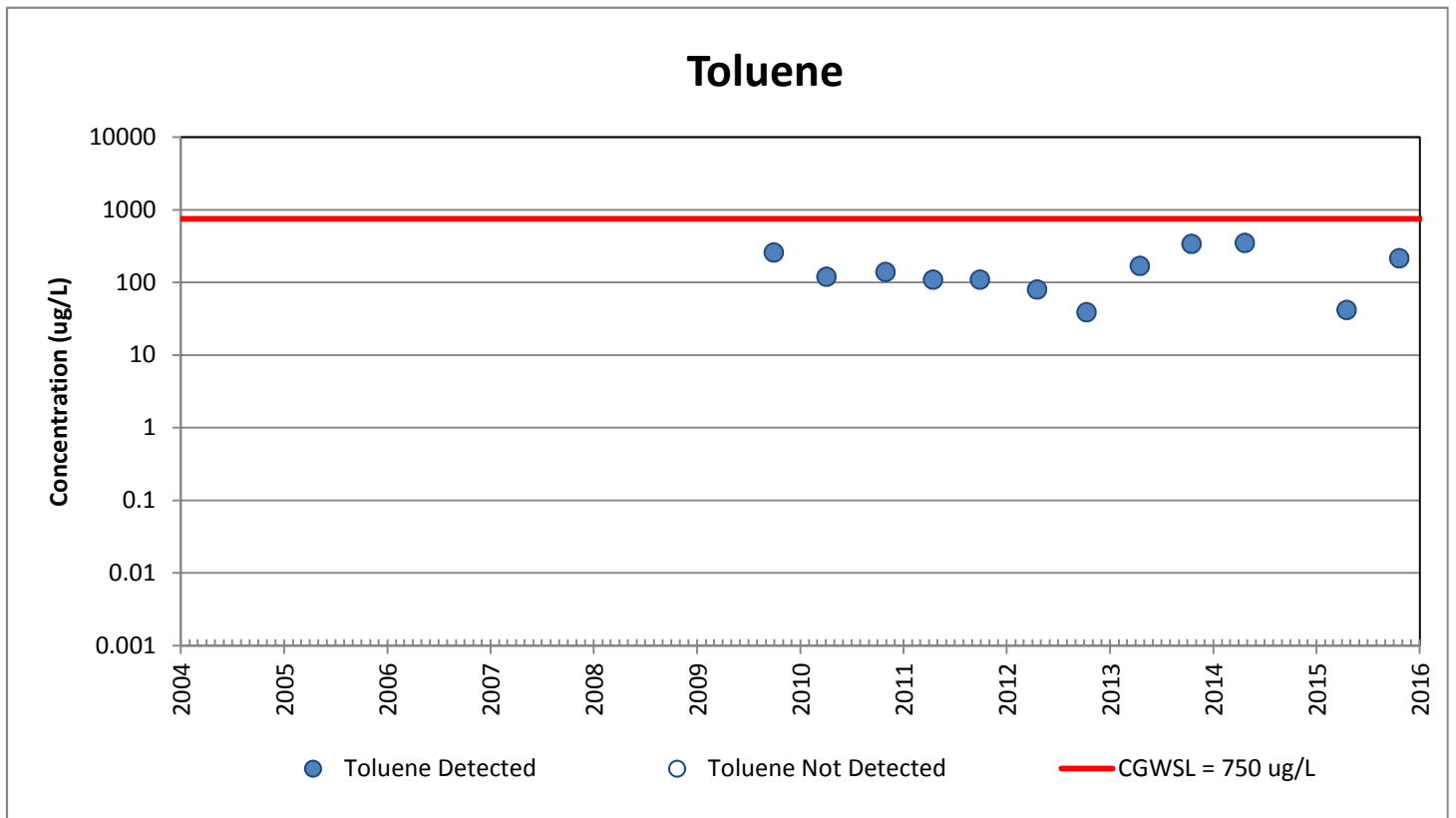
## Benzene



## Ethylbenzene

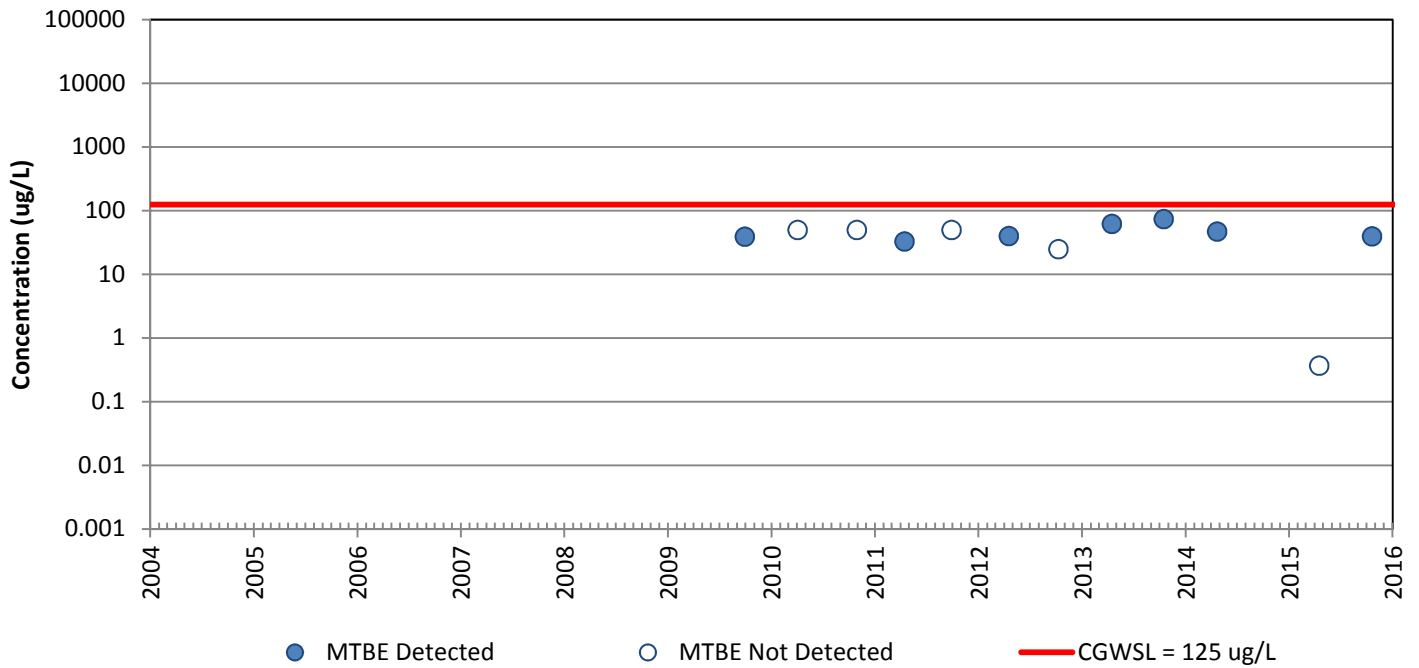


# MW-106

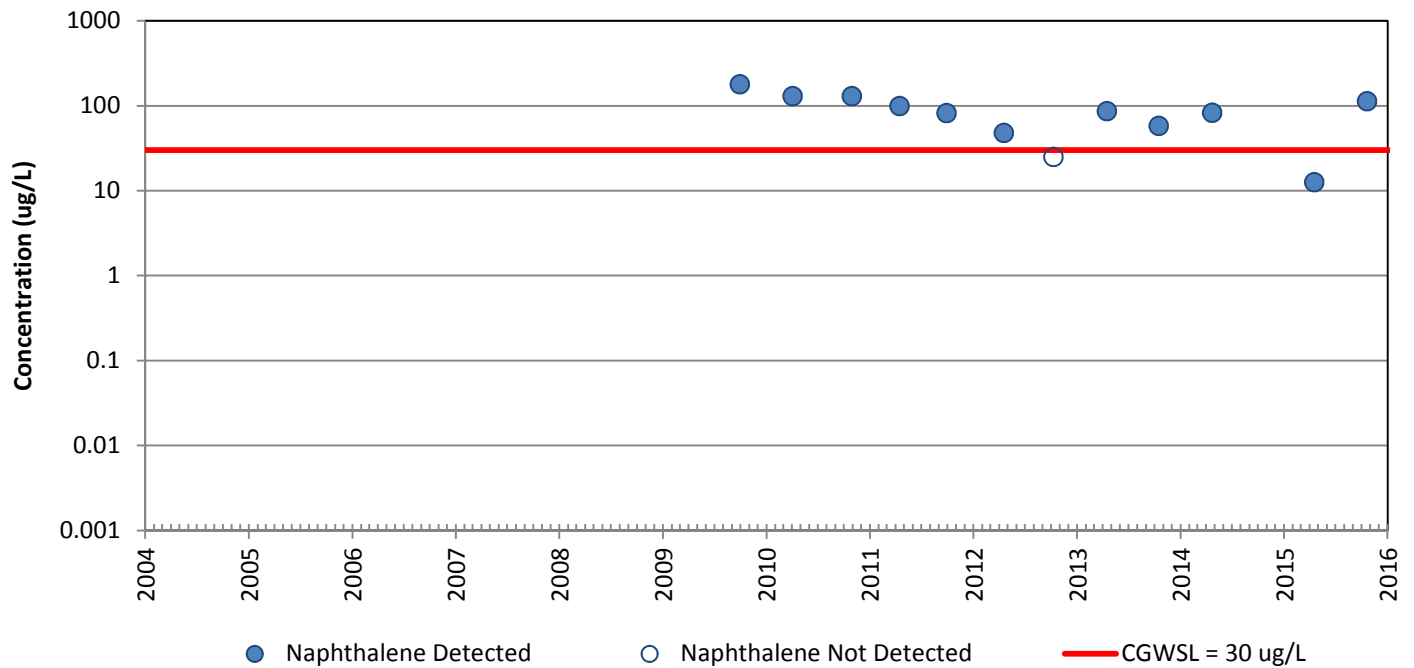


# MW-106

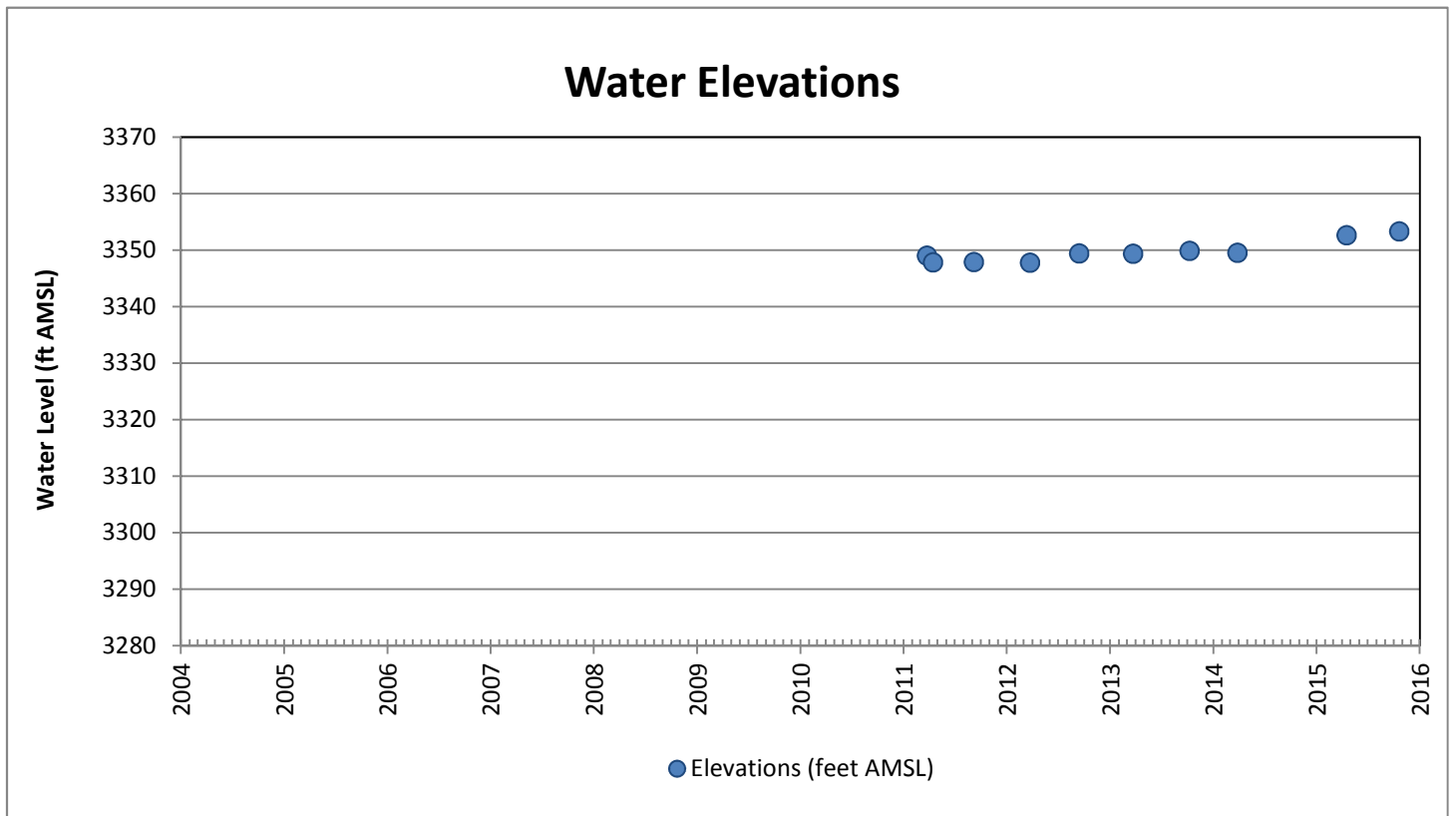
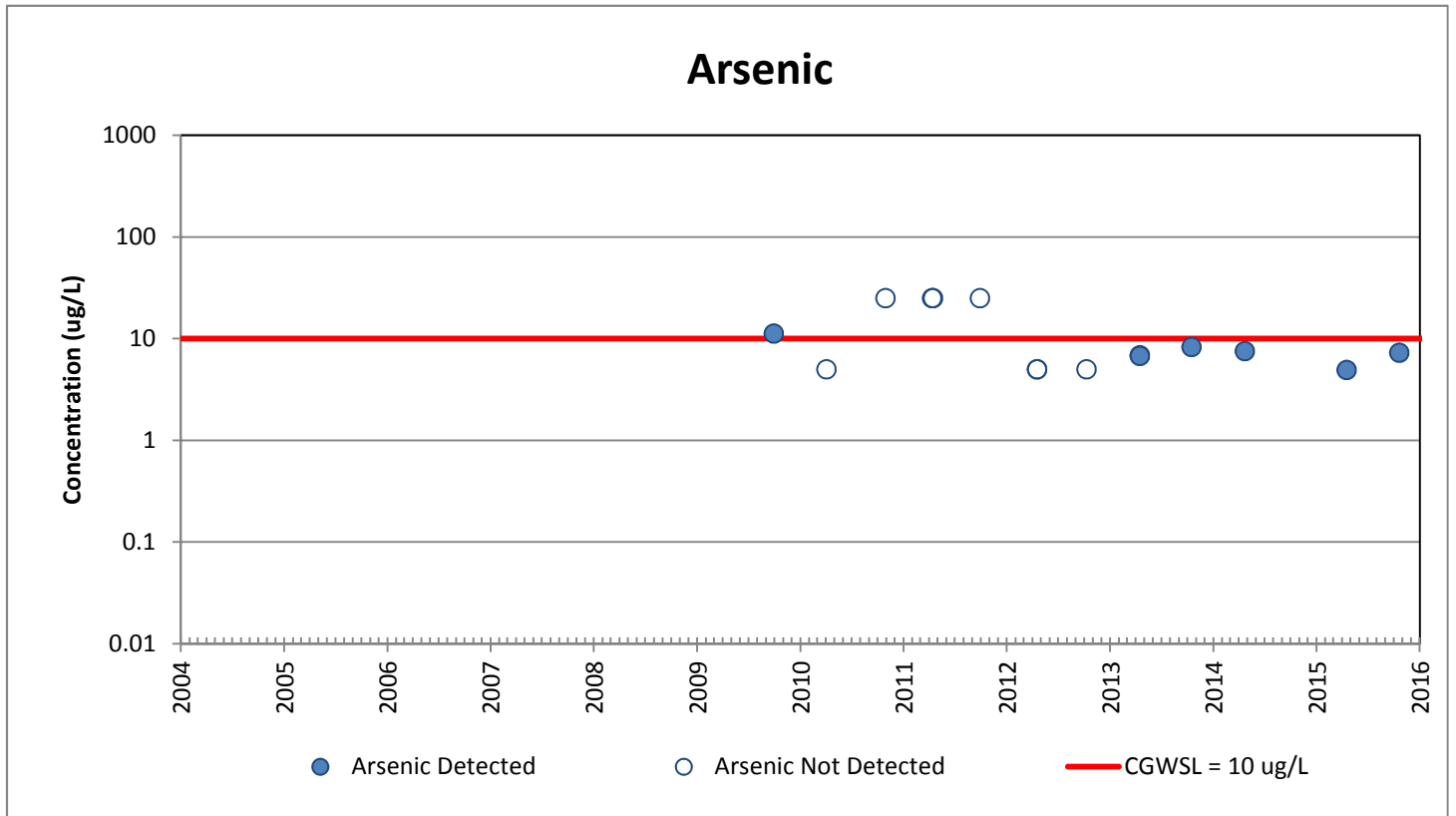
## MTBE



## Naphthalene

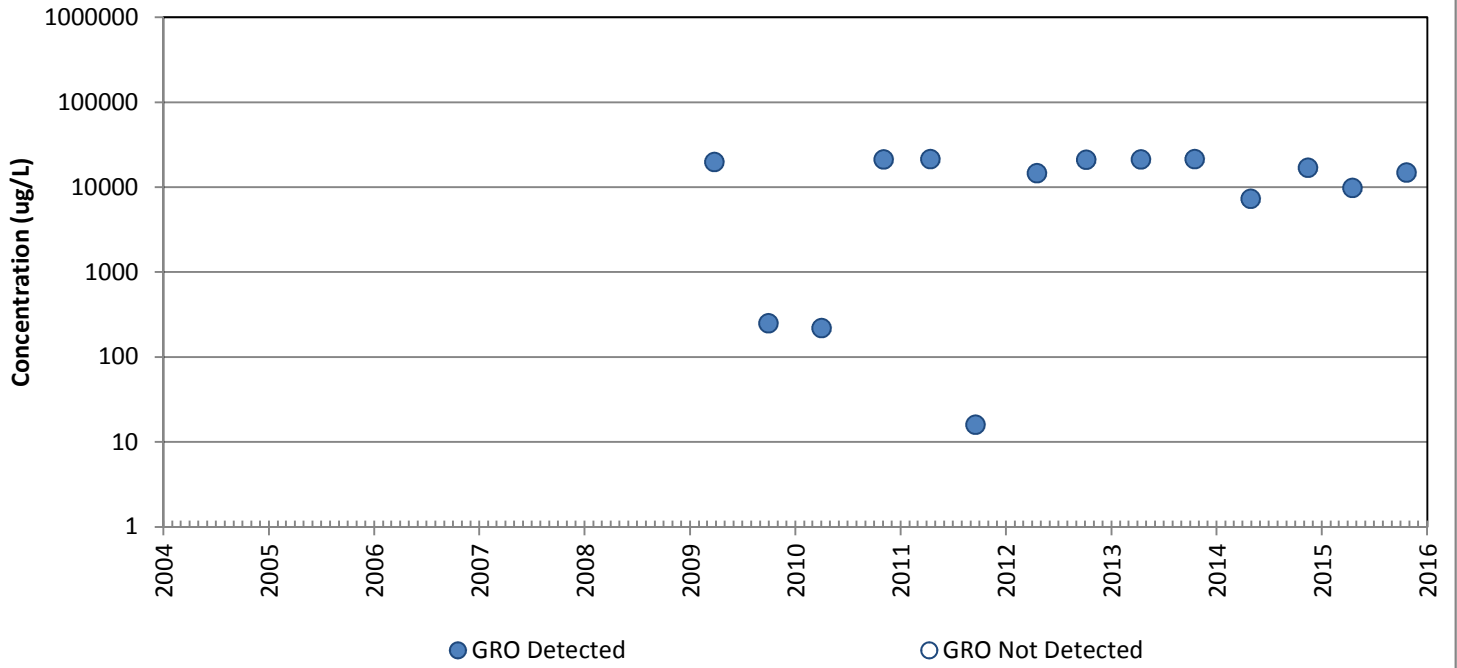


# MW-106

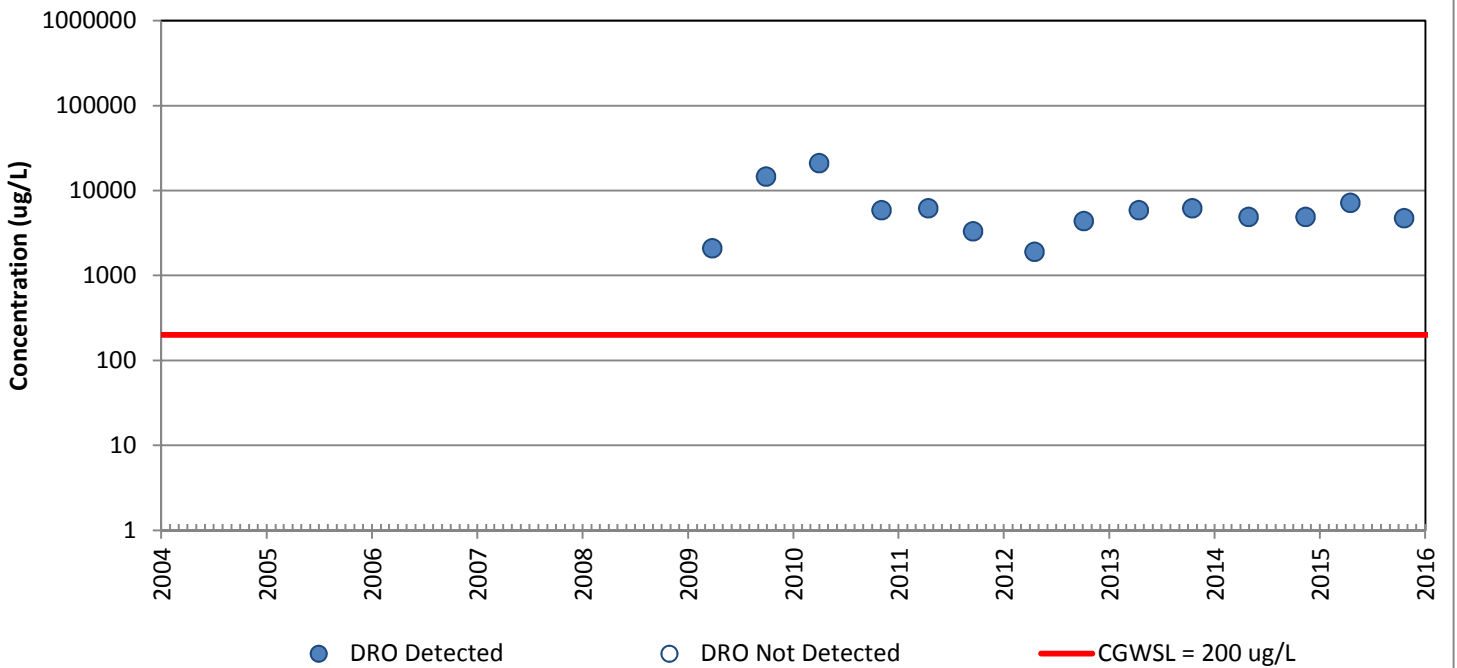


# MW-107

## GRO

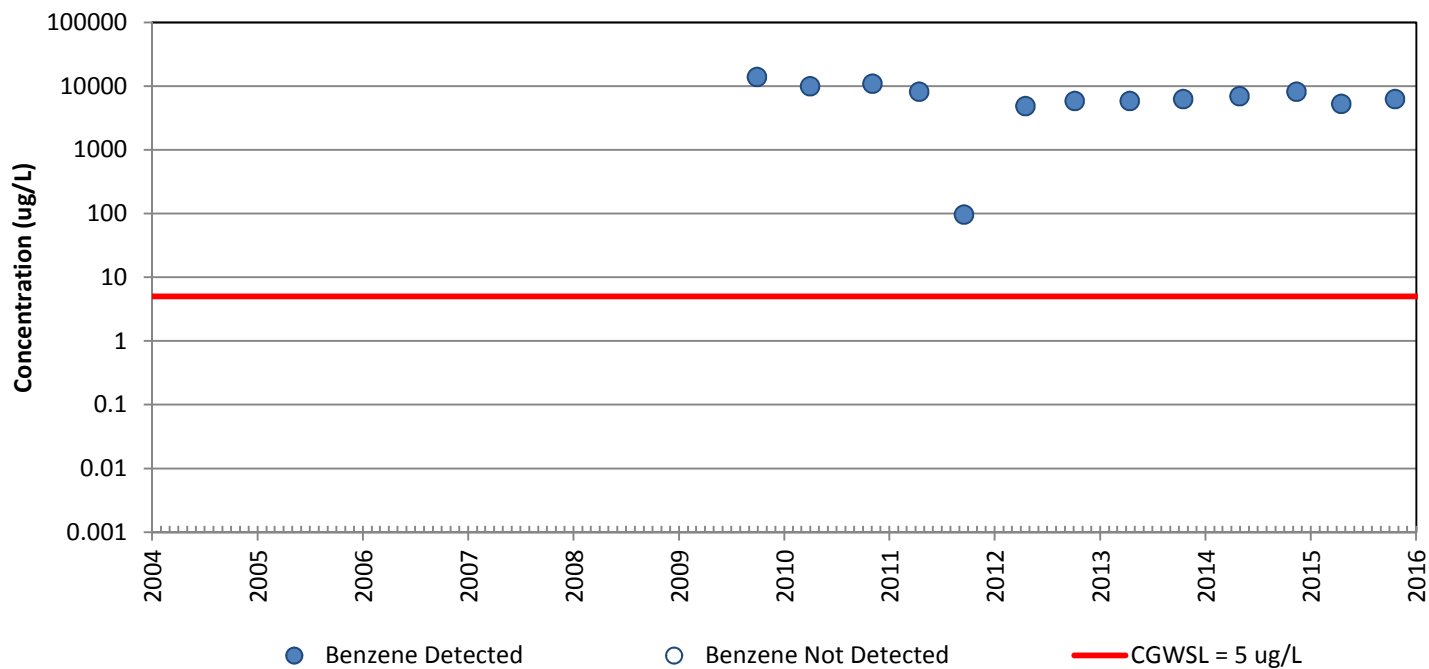


## DRO

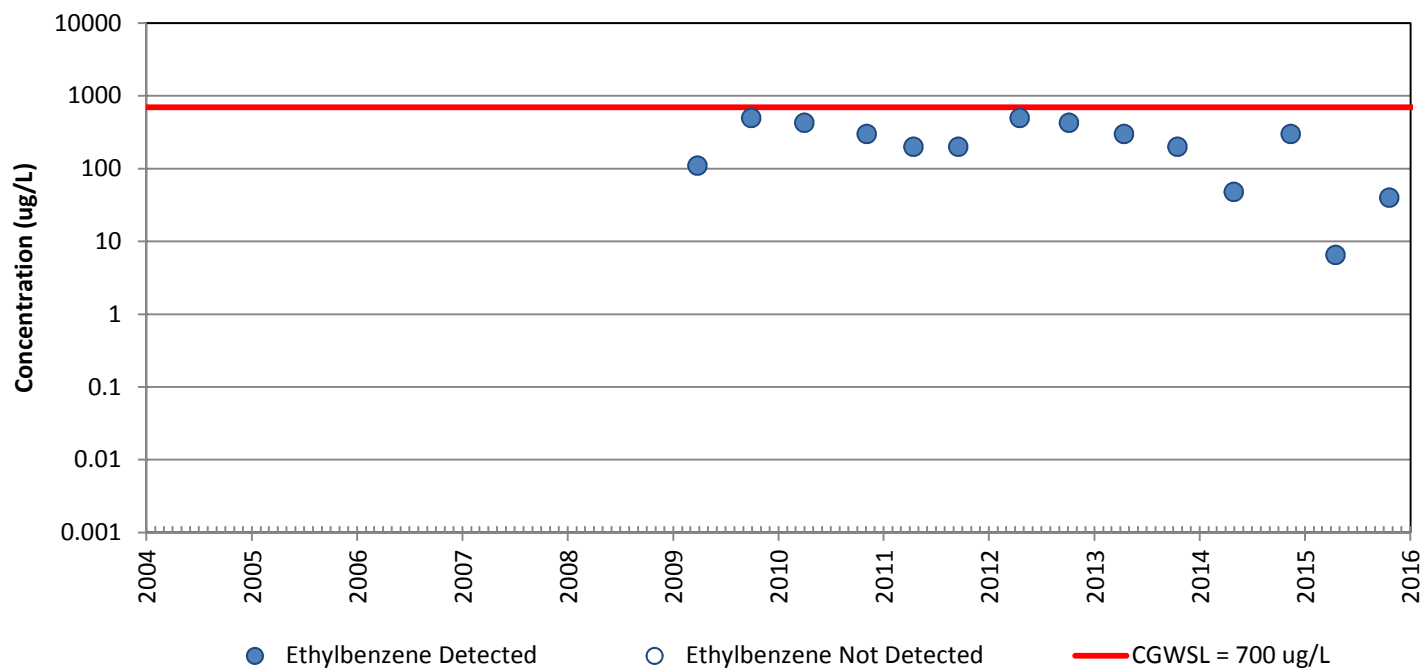


# MW-107

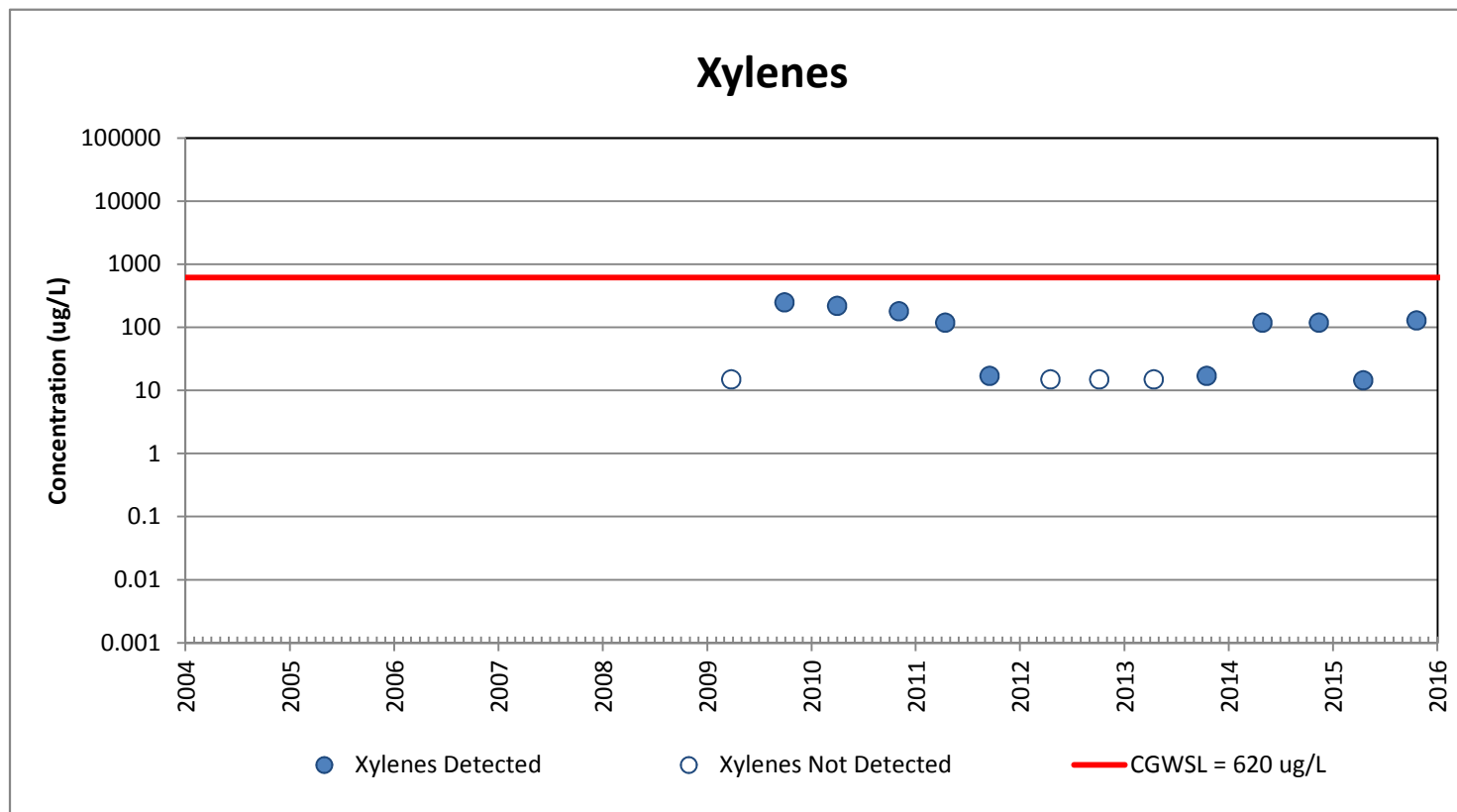
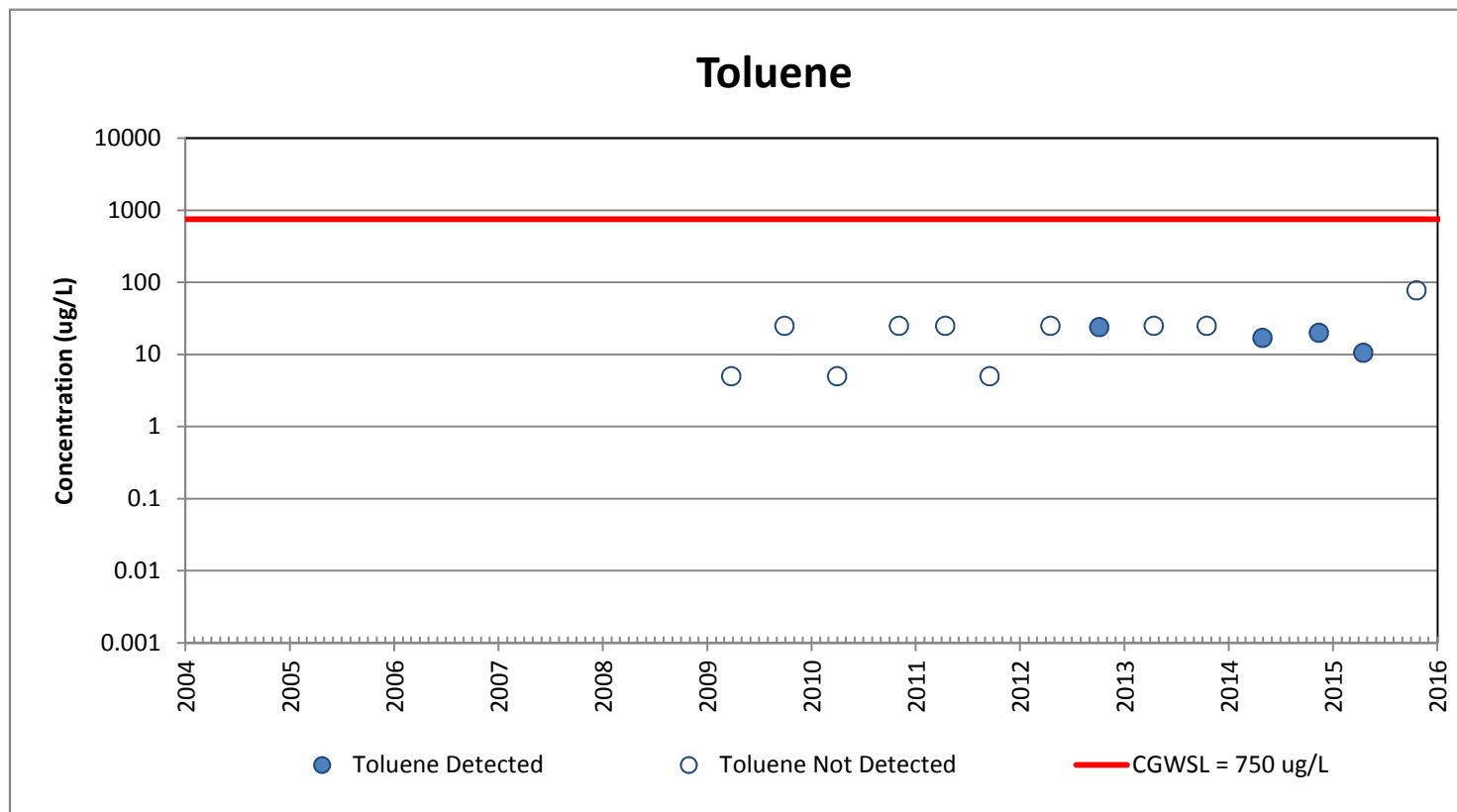
## Benzene



## Ethylbenzene

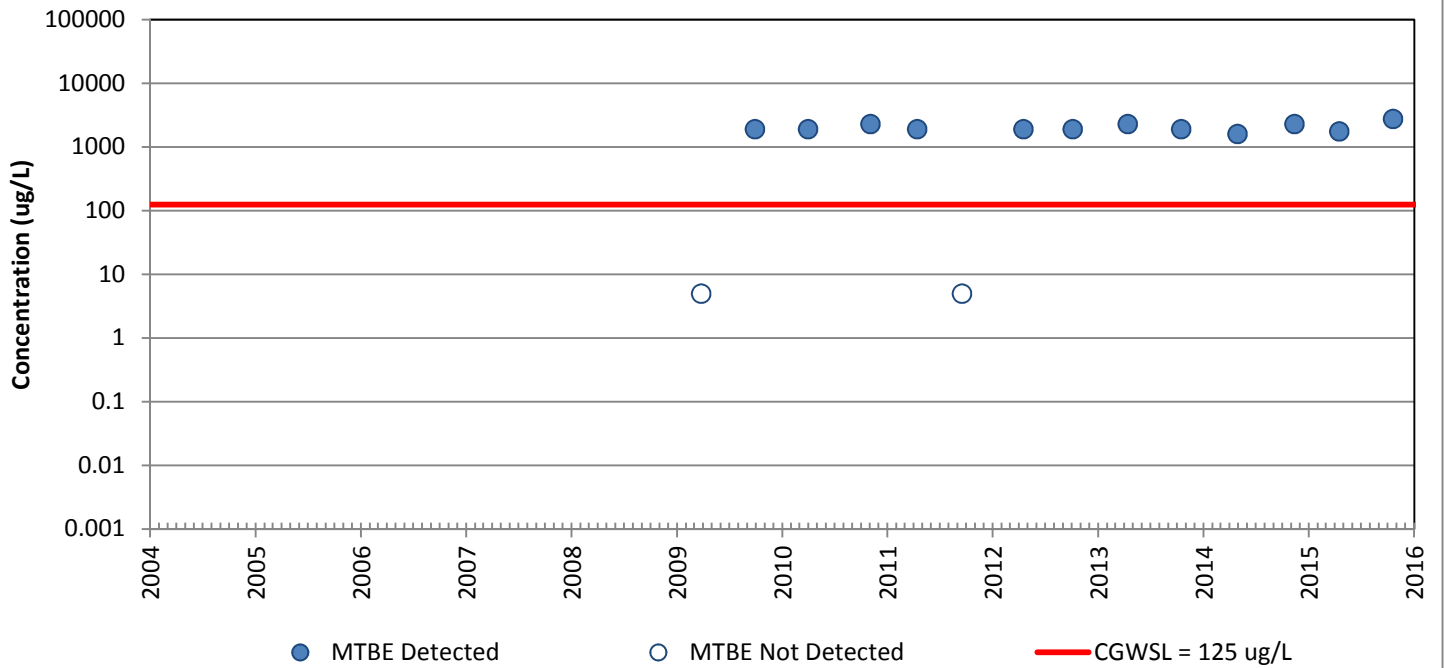


# MW-107

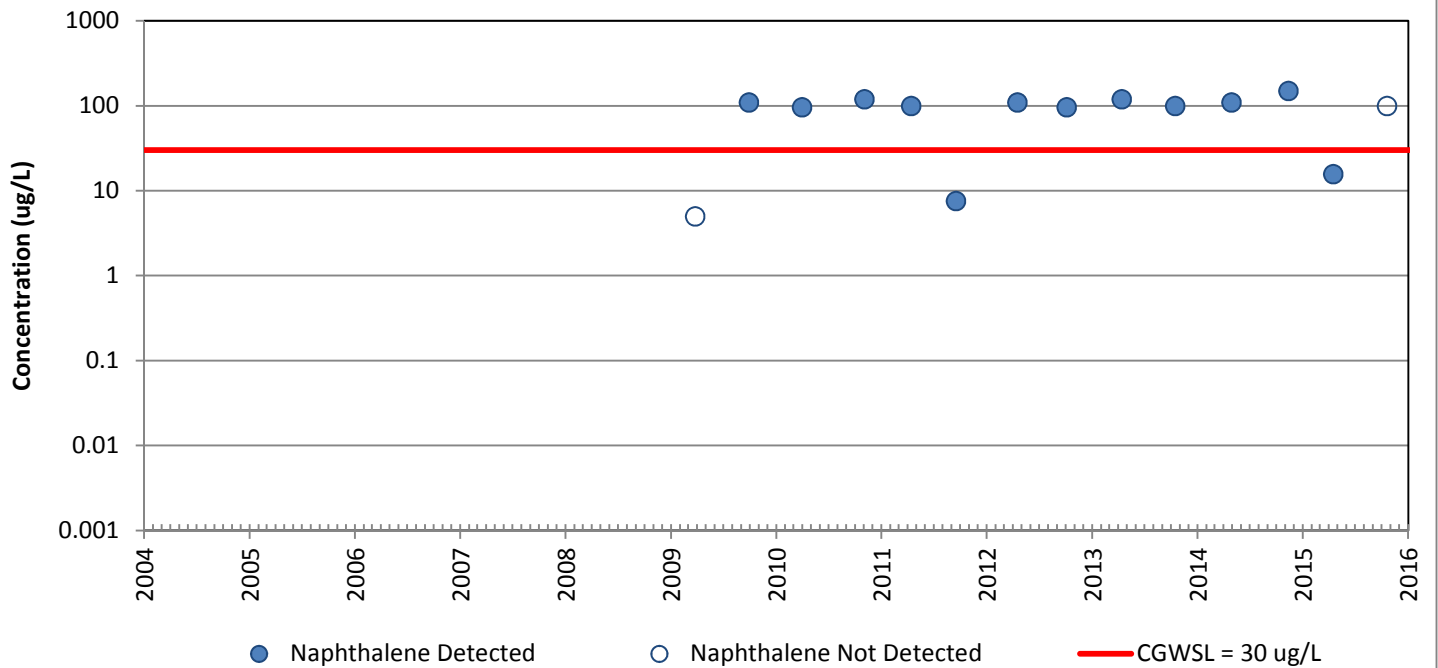


# MW-107

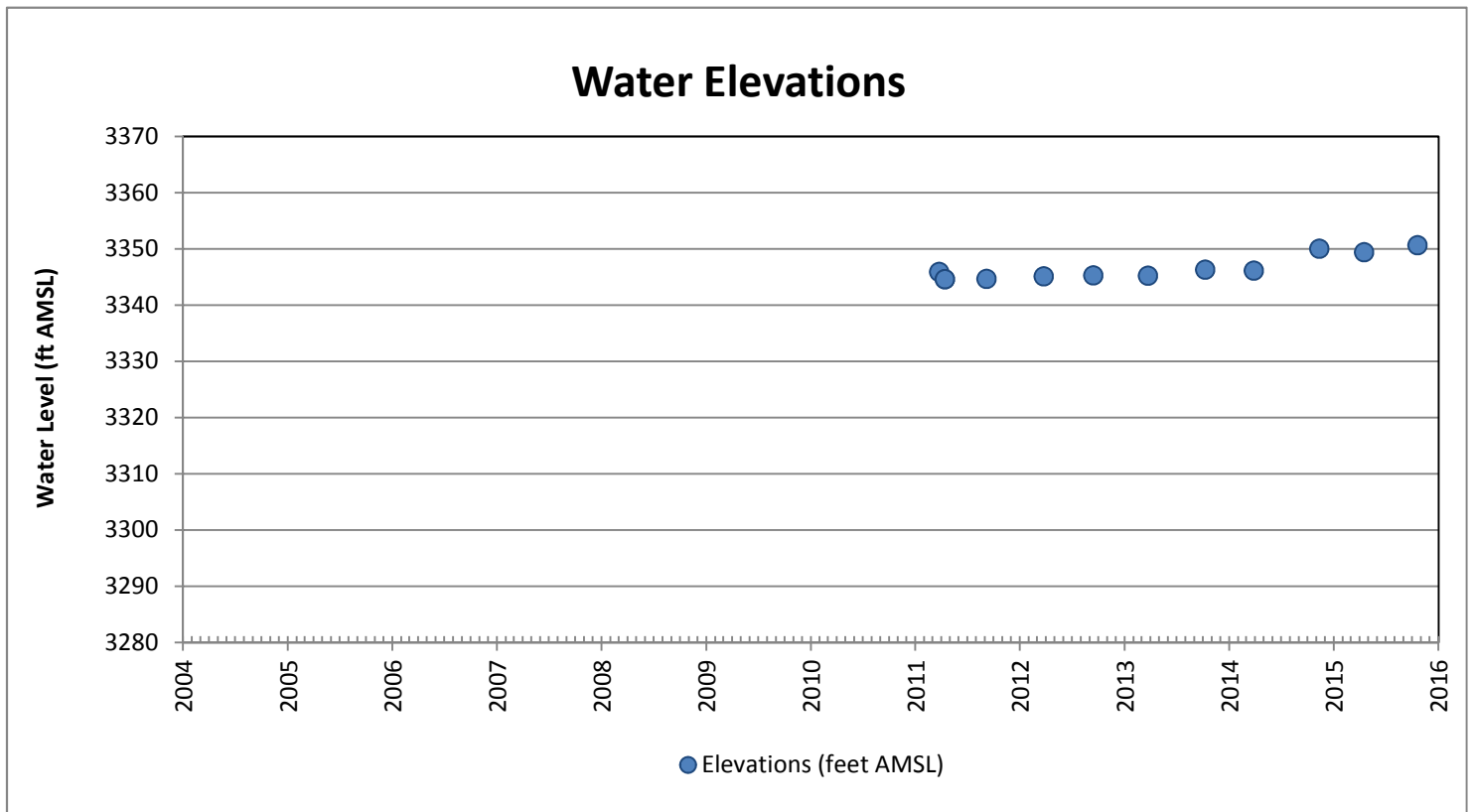
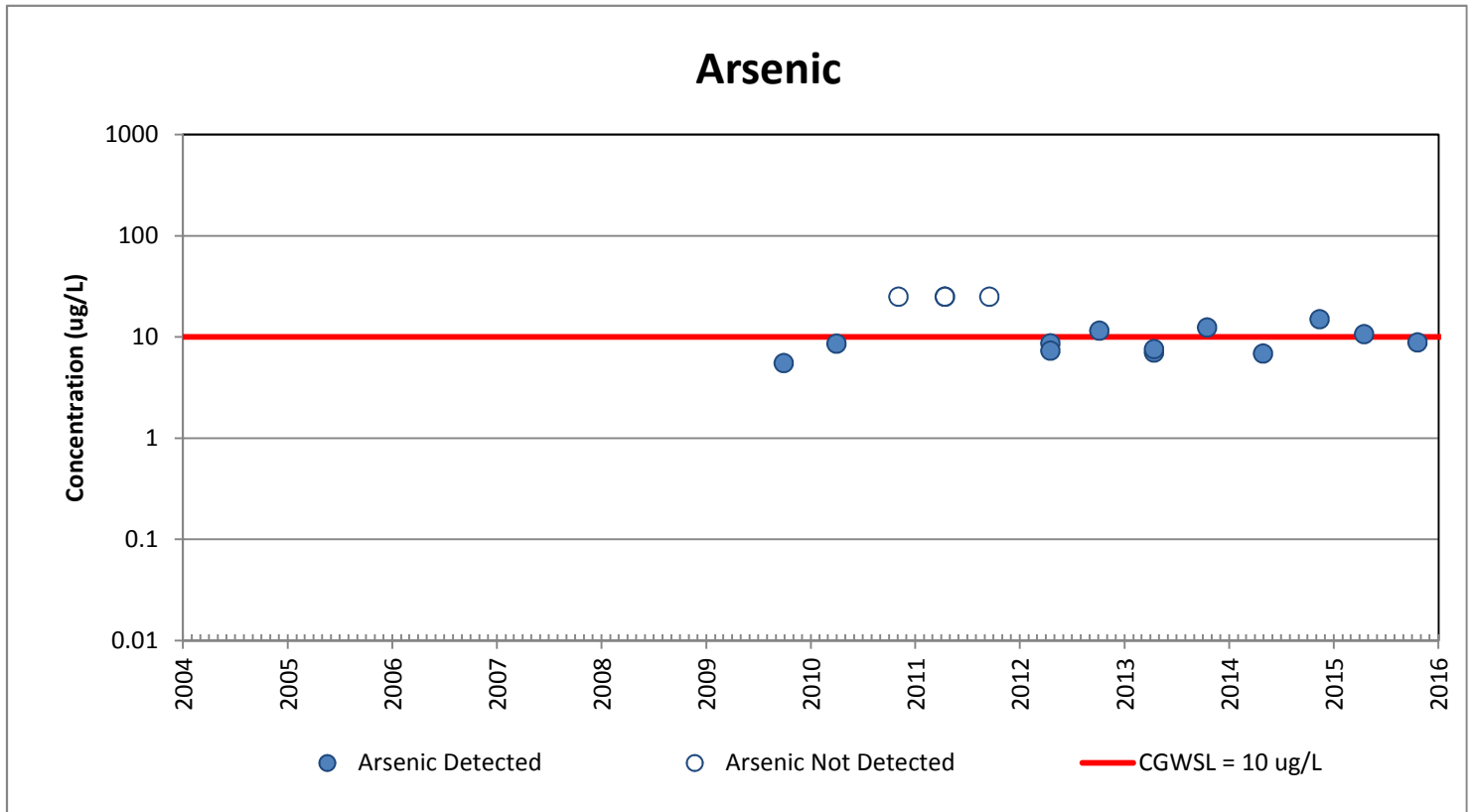
## MTBE



## Naphthalene

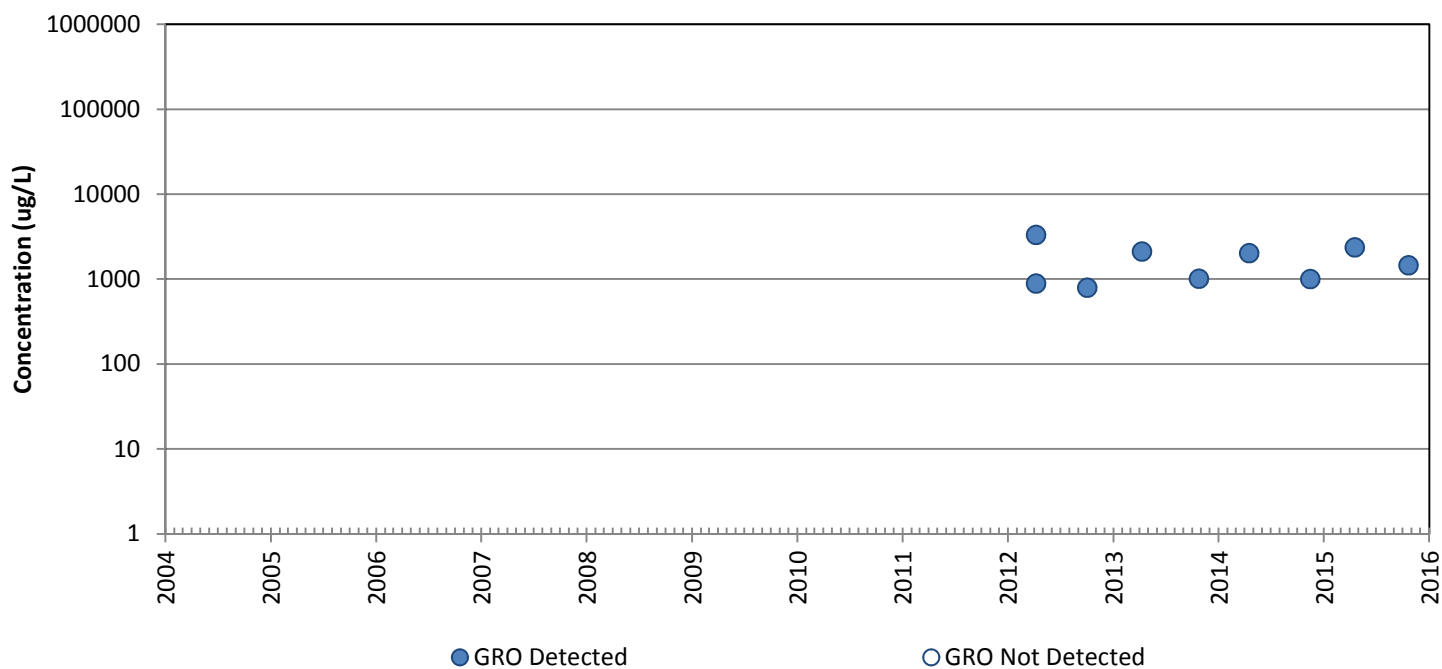


# MW-107

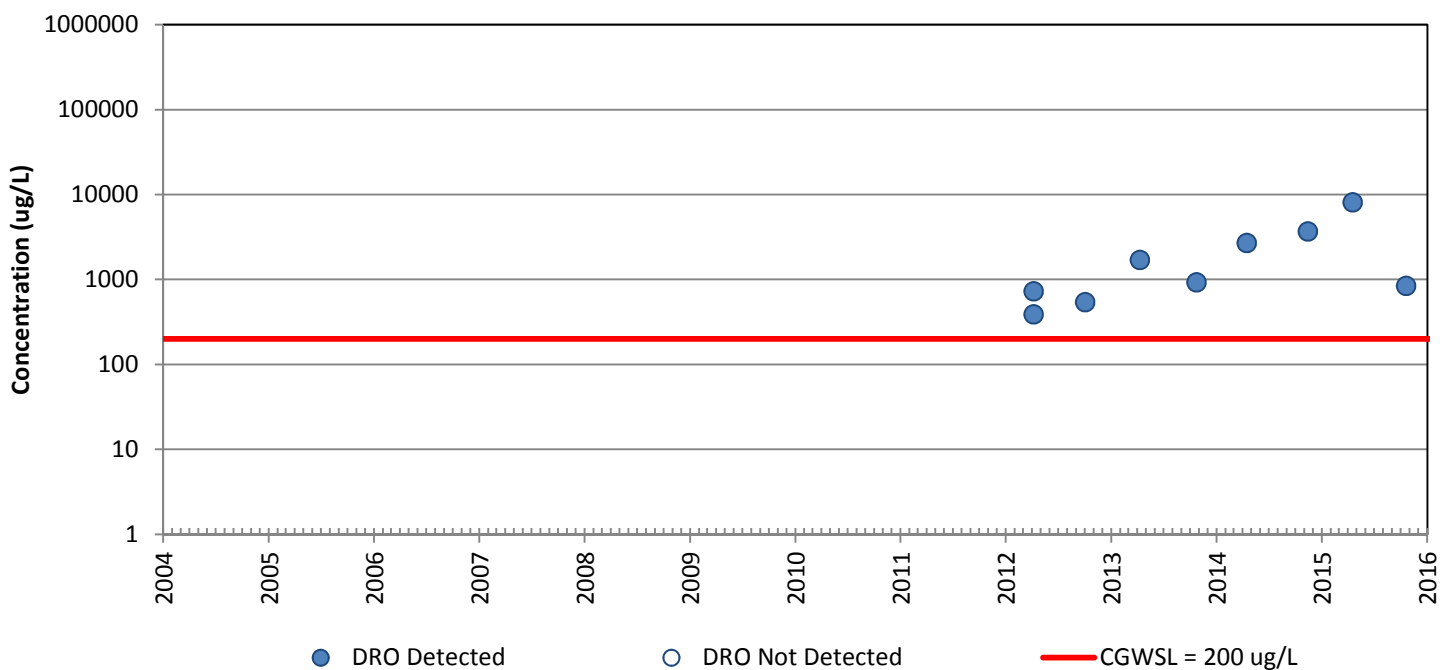


# MW-109

## GRO

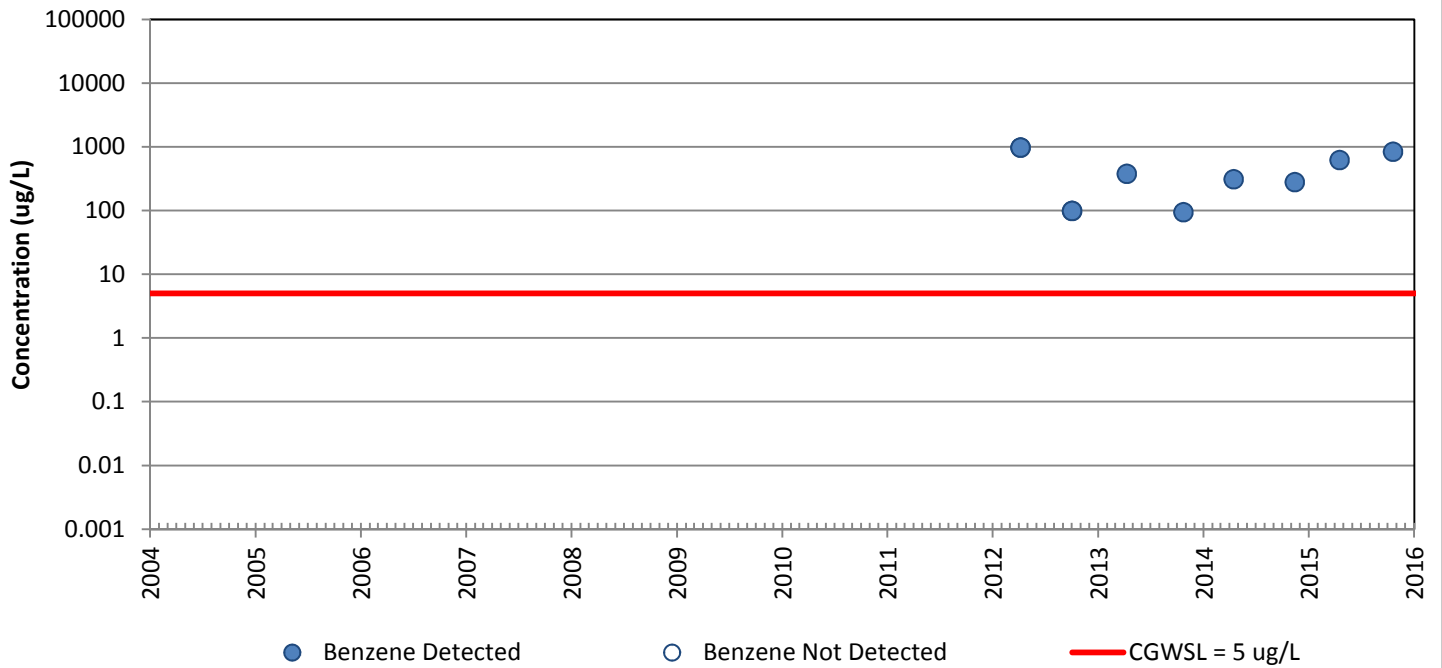


## DRO

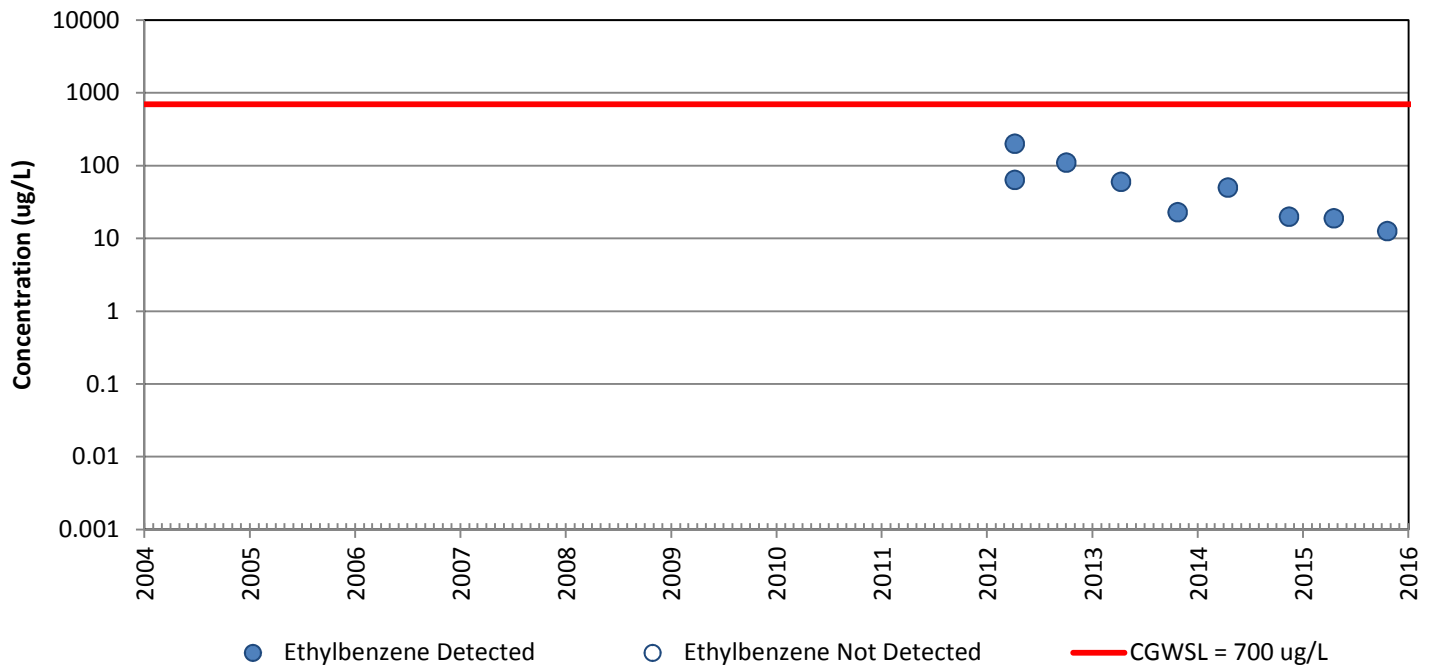


# MW-109

## Benzene

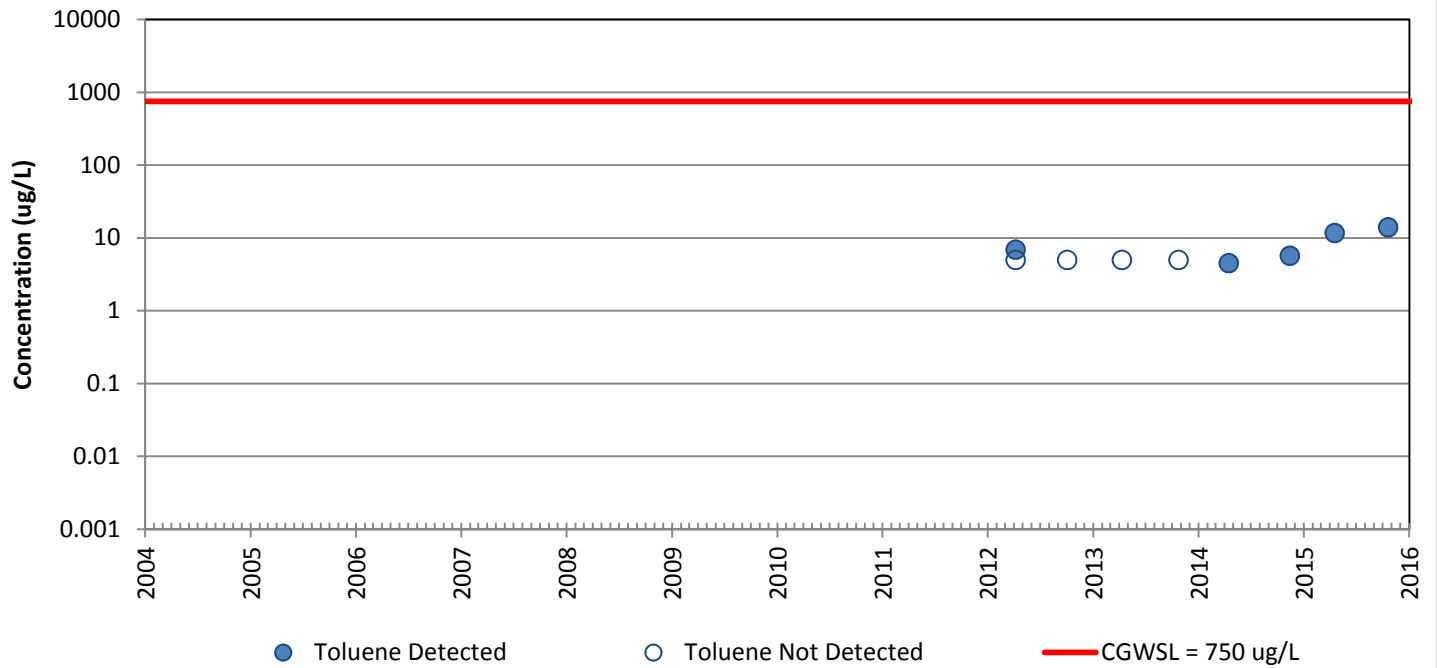


## Ethylbenzene

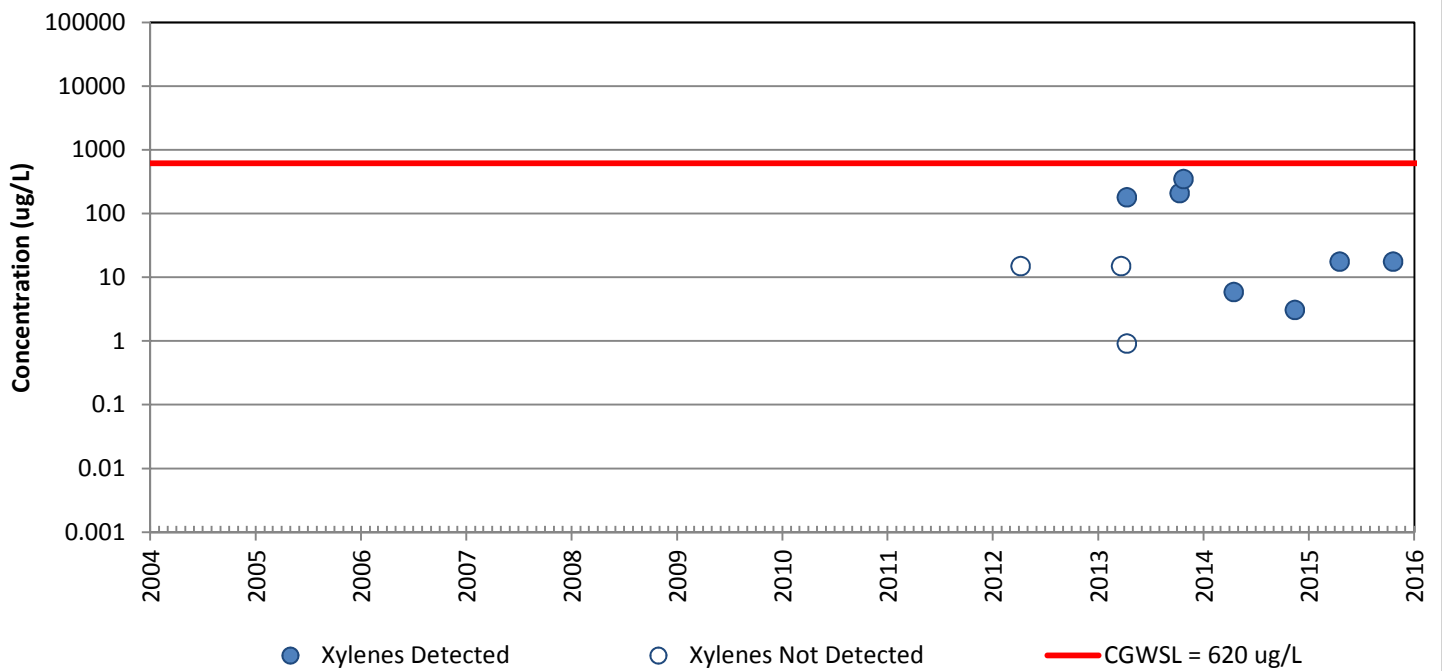


# MW-109

## Toluene

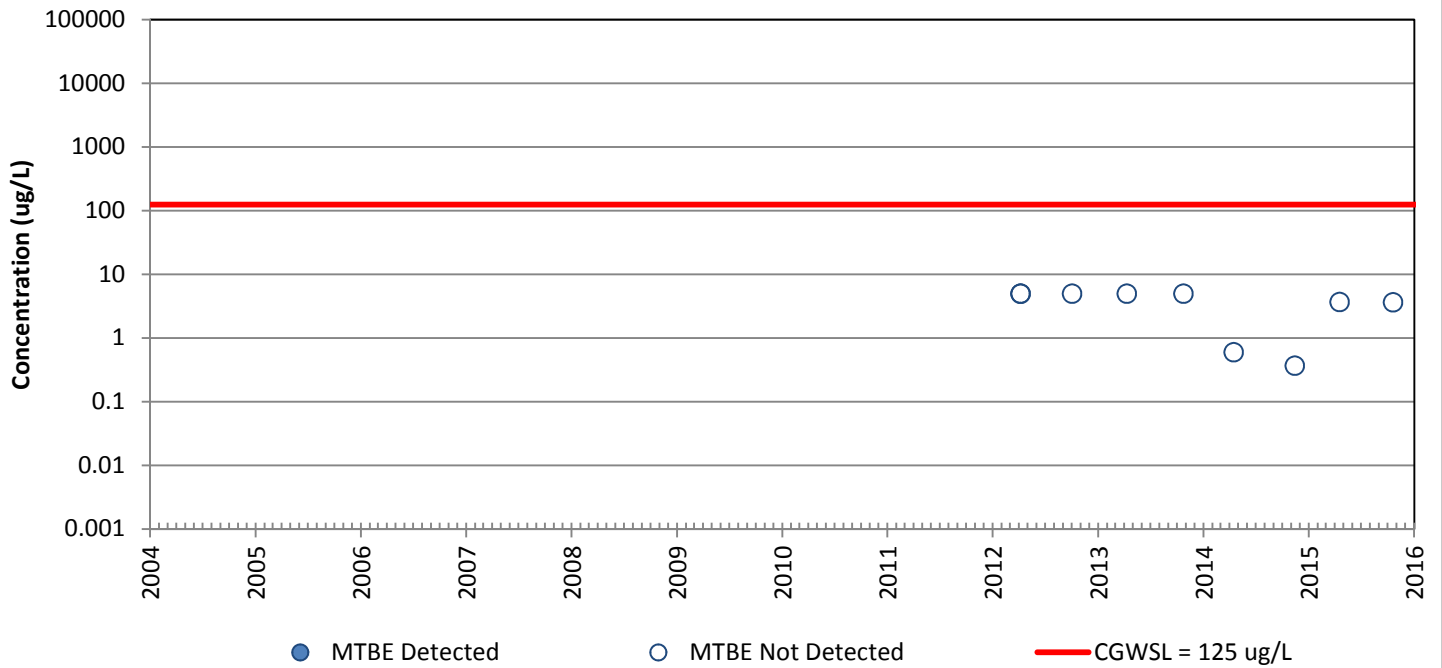


## Xylenes

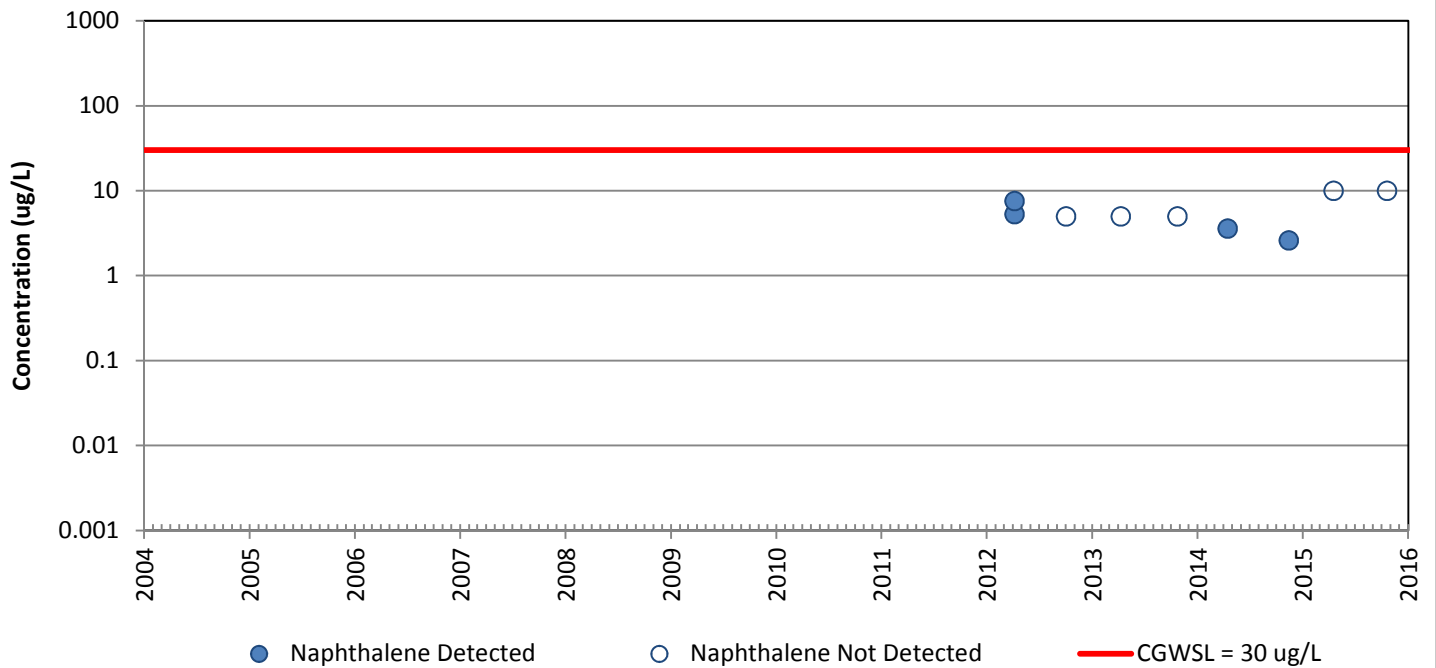


# MW-109

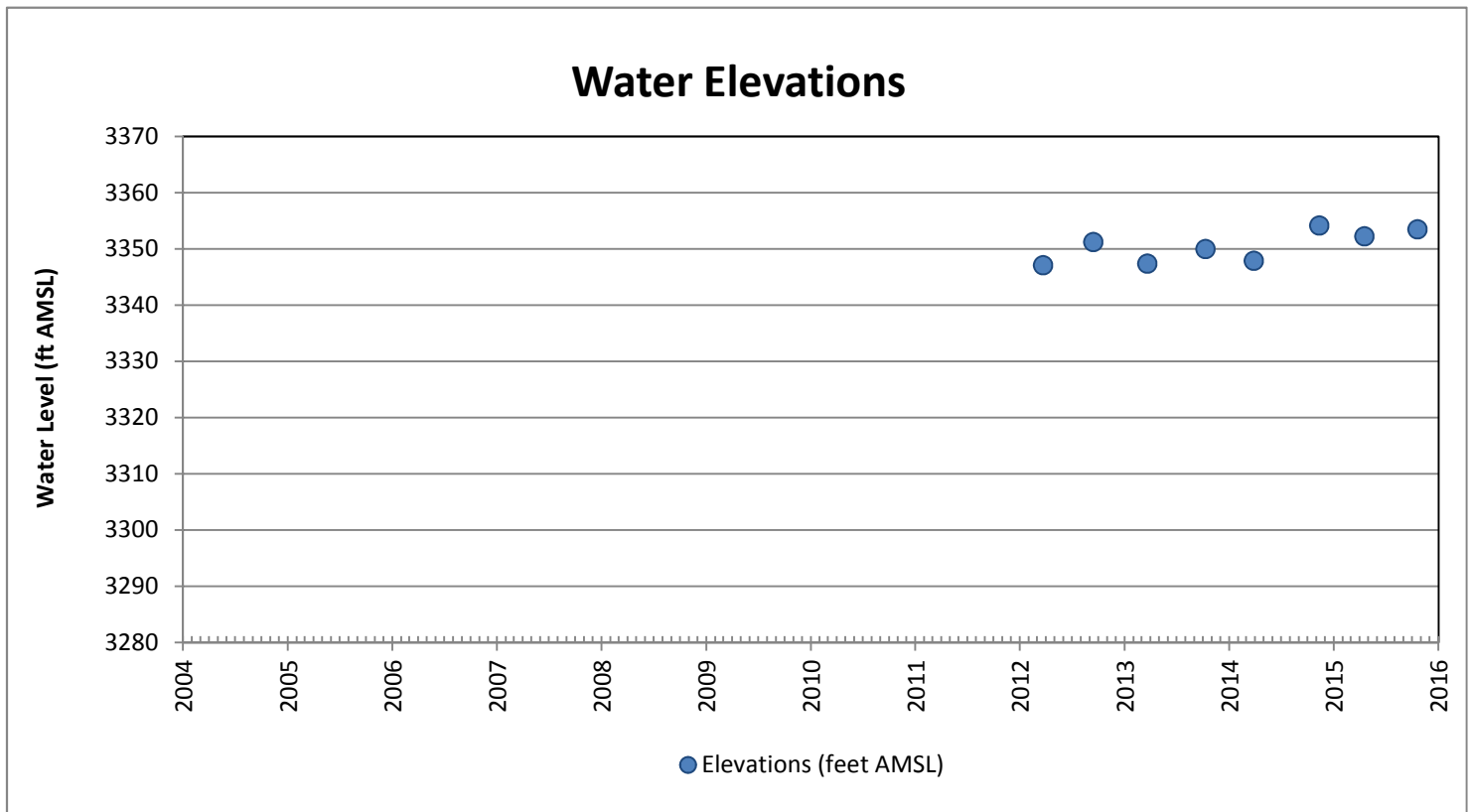
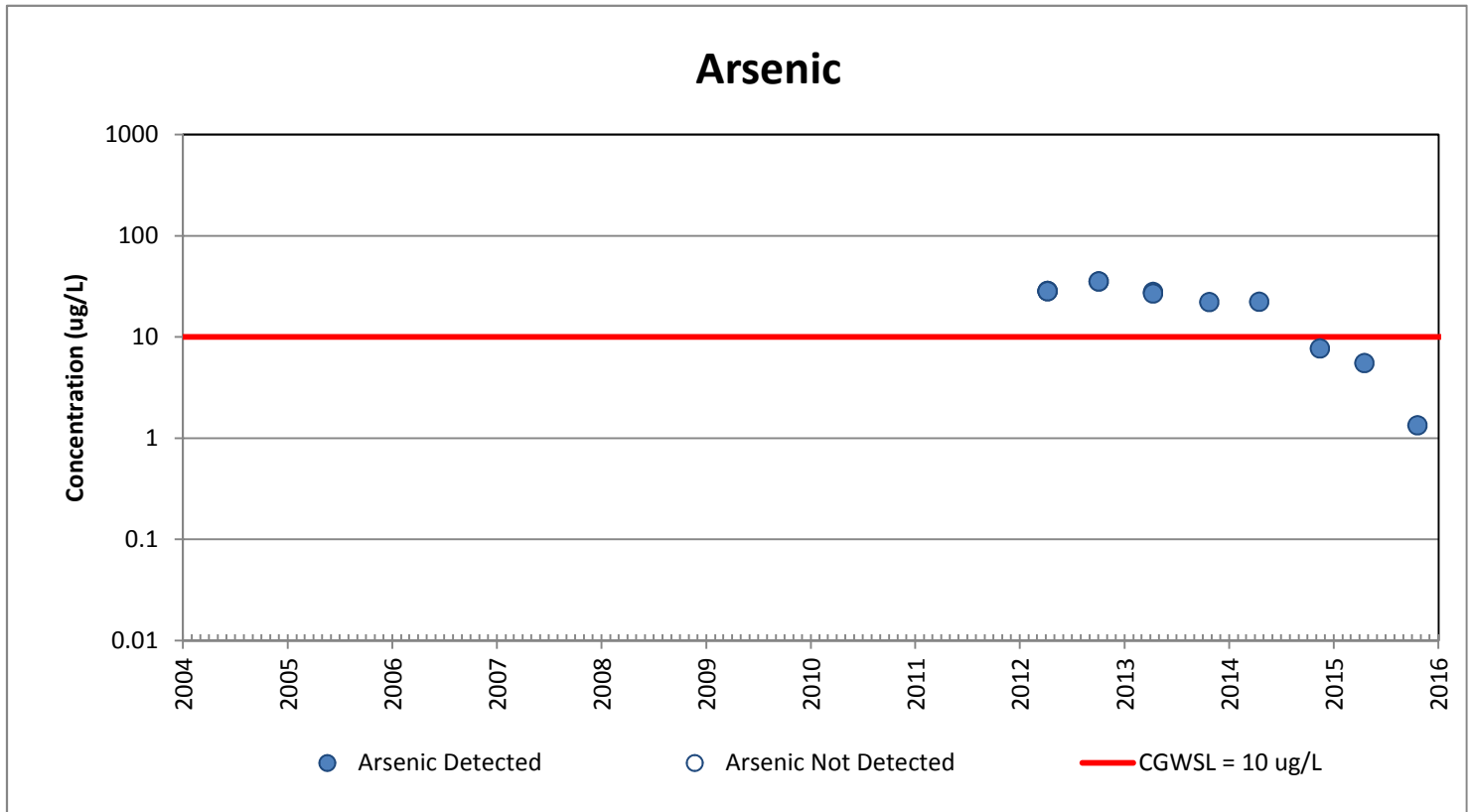
## MTBE



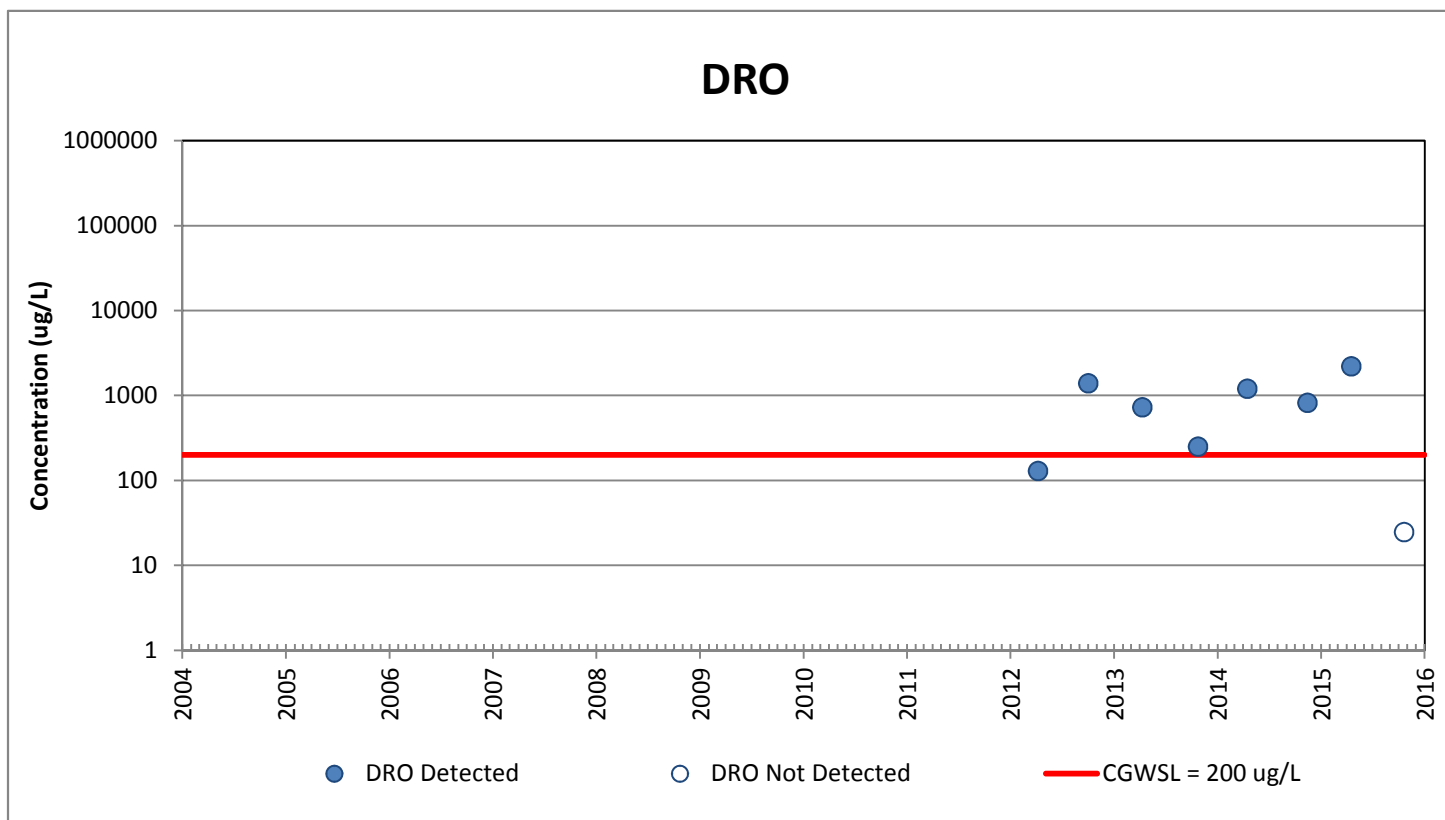
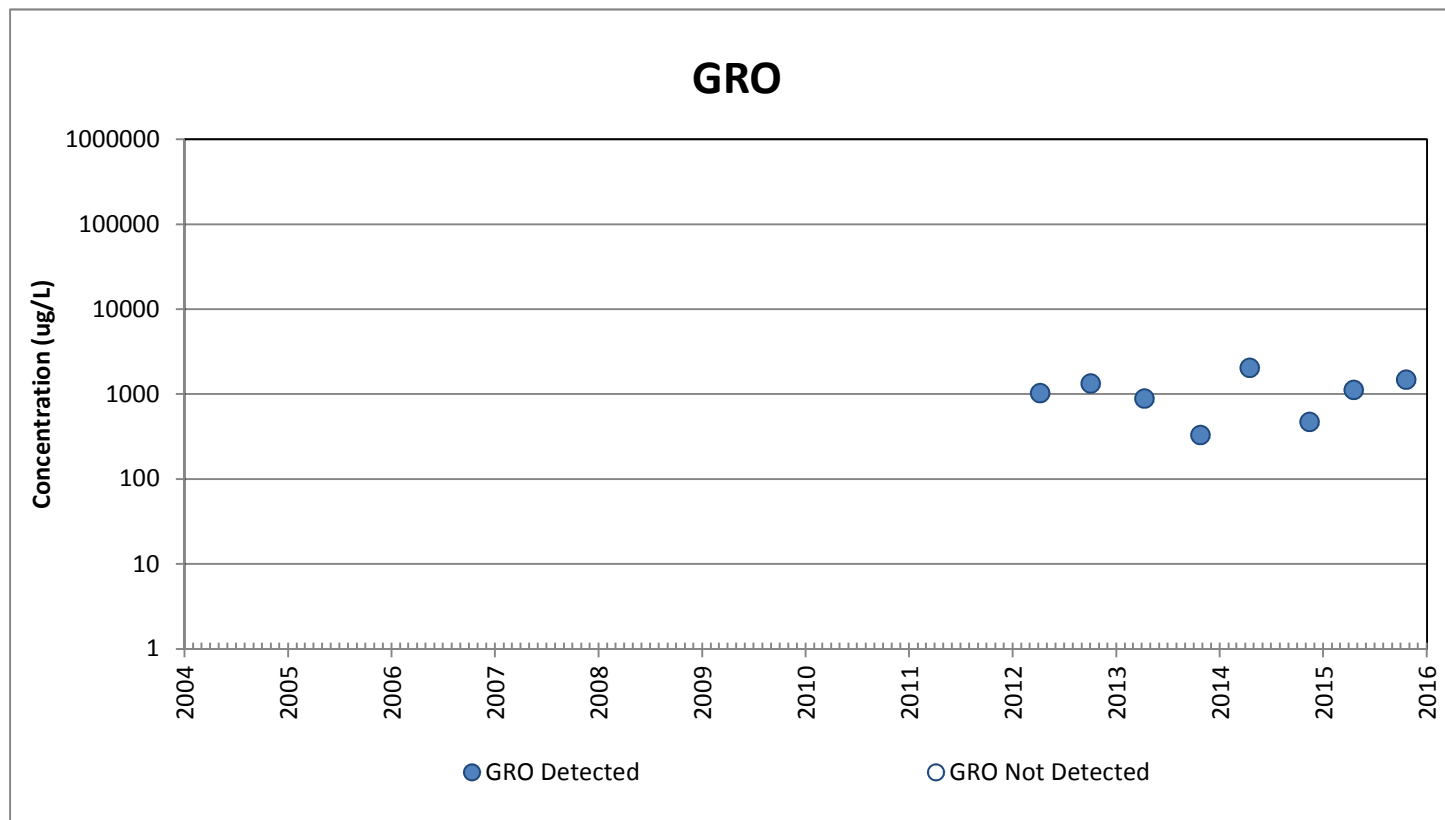
## Naphthalene



# MW-109

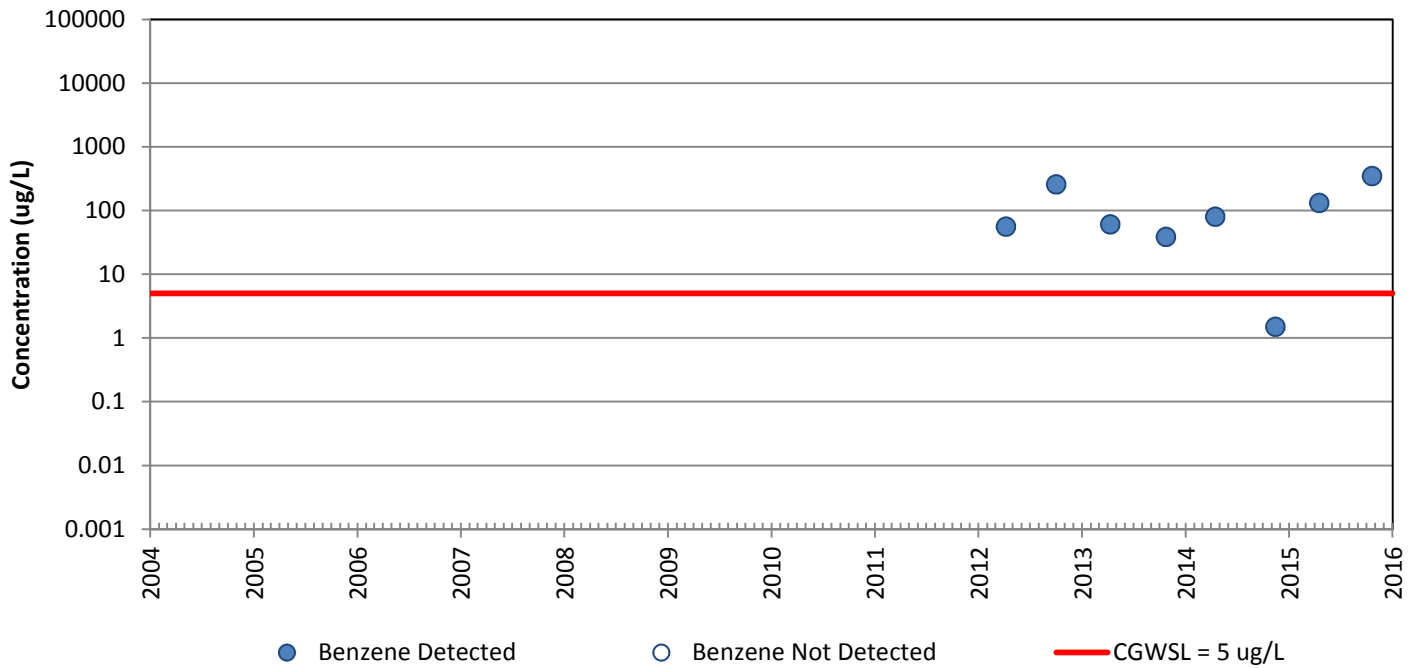


# MW-110

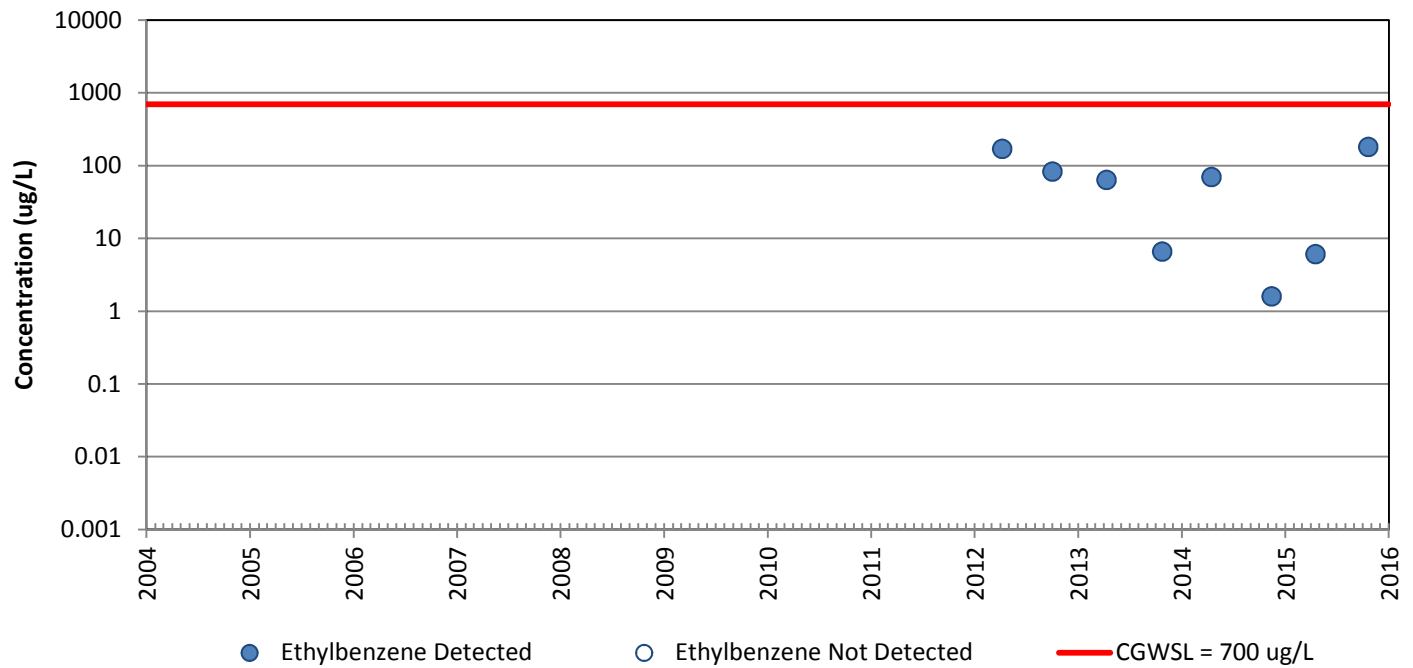


# MW-110

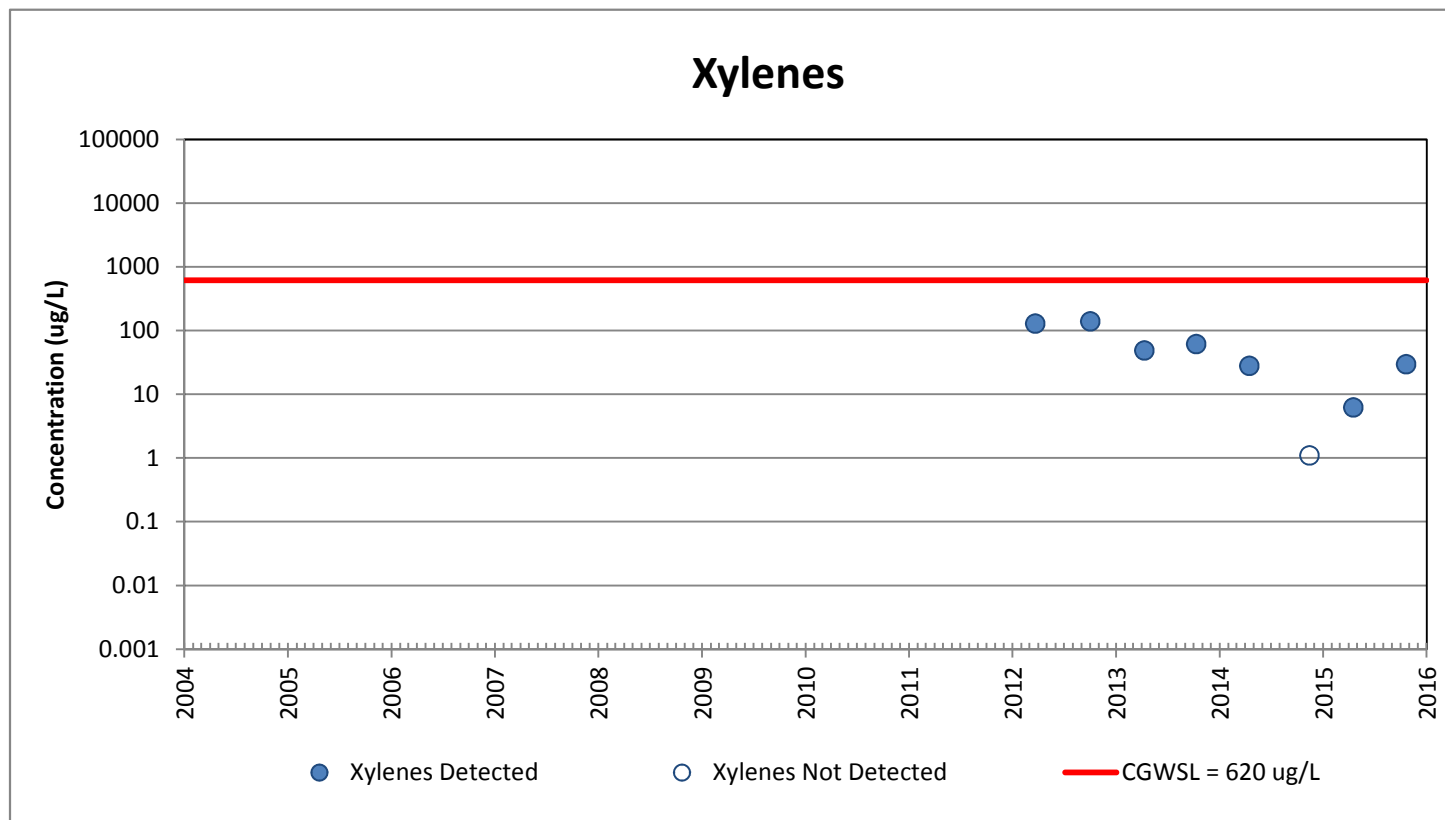
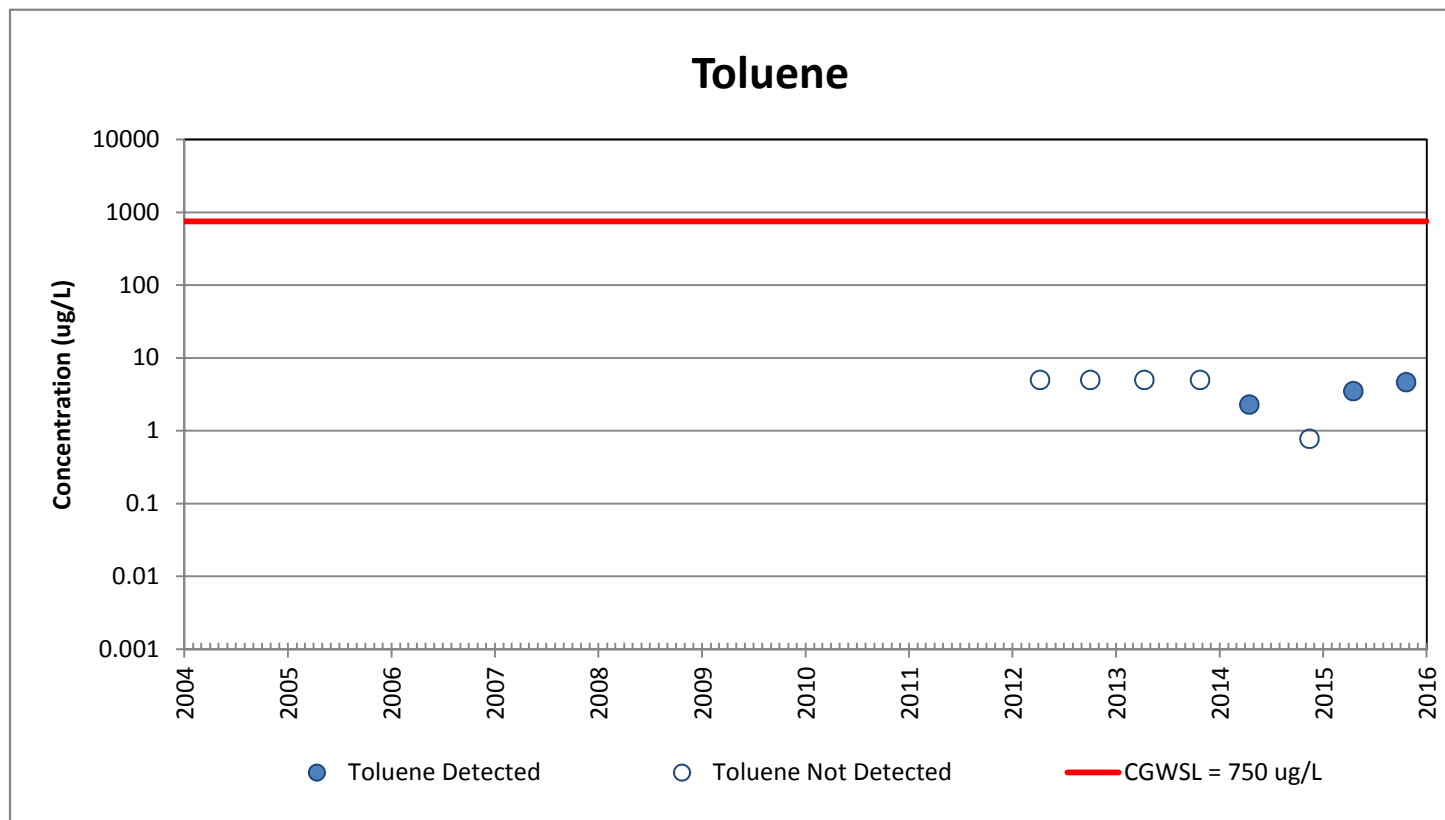
## Benzene



## Ethylbenzene

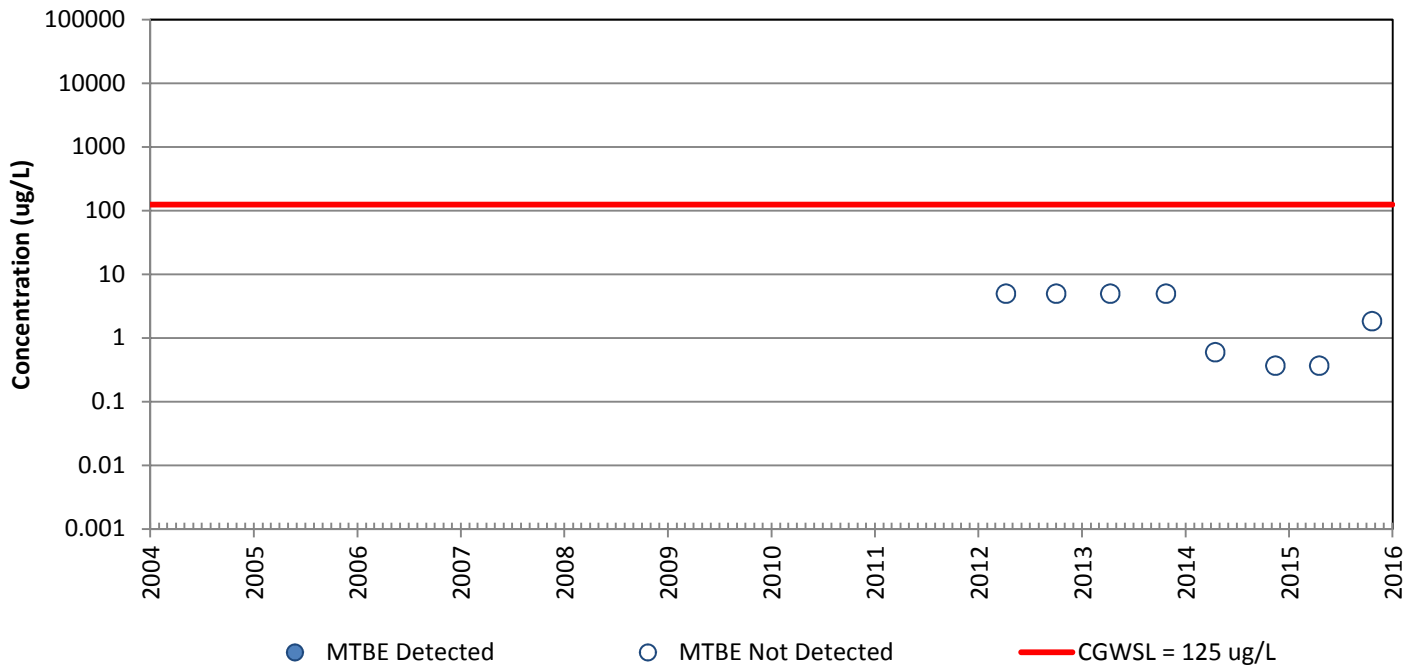


# MW-110

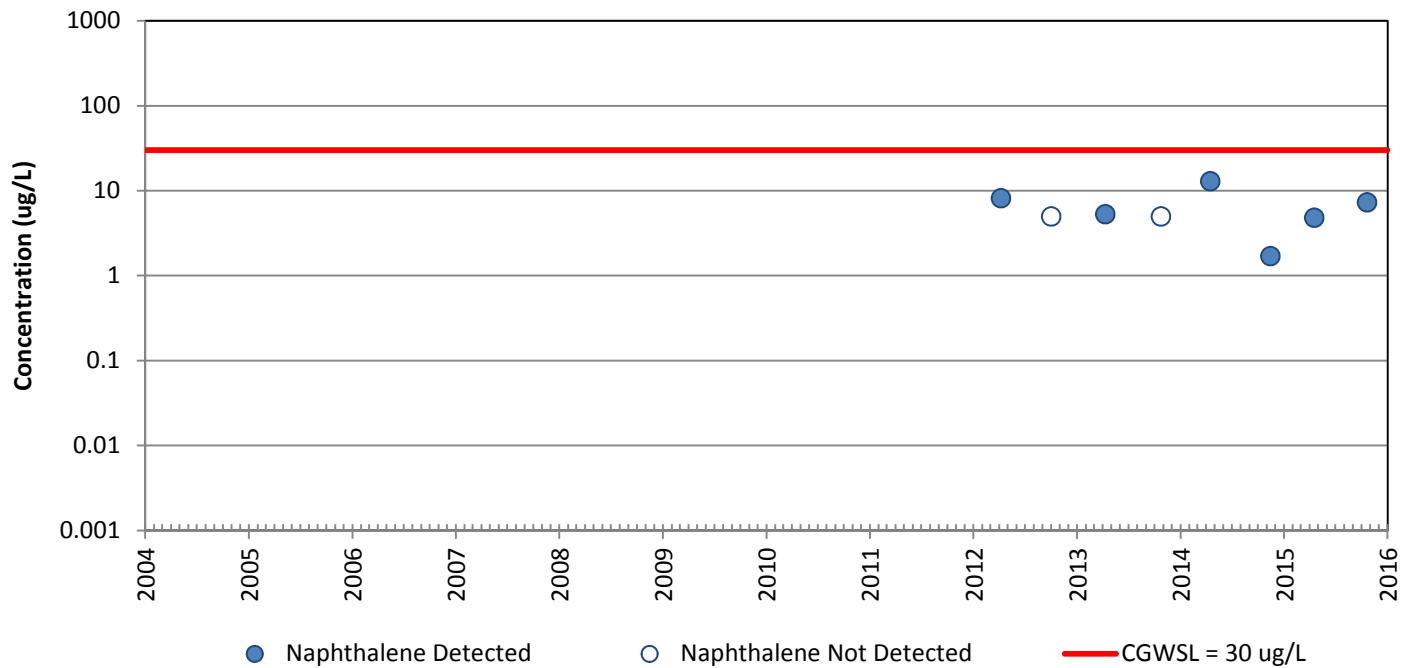


# MW-110

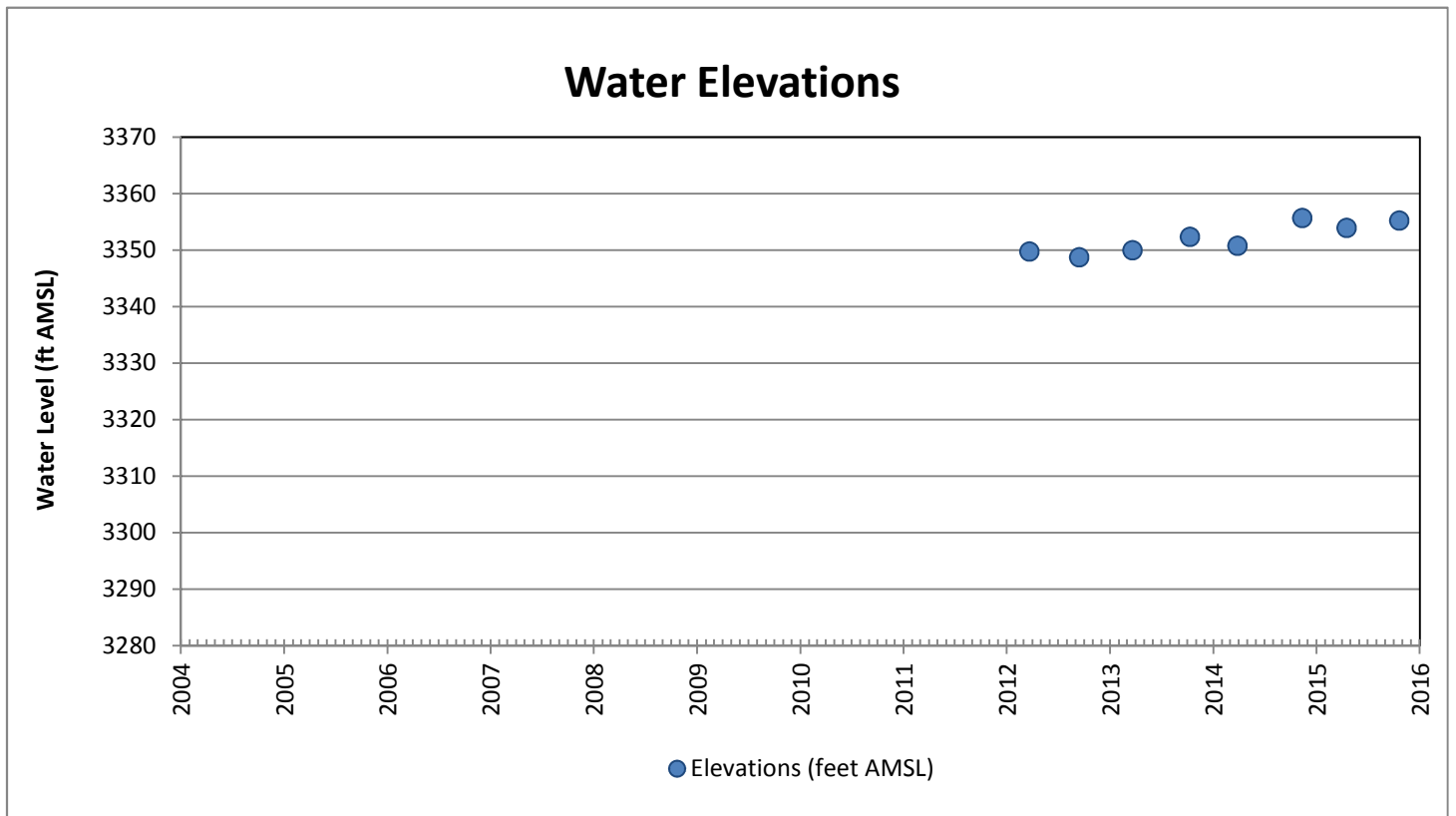
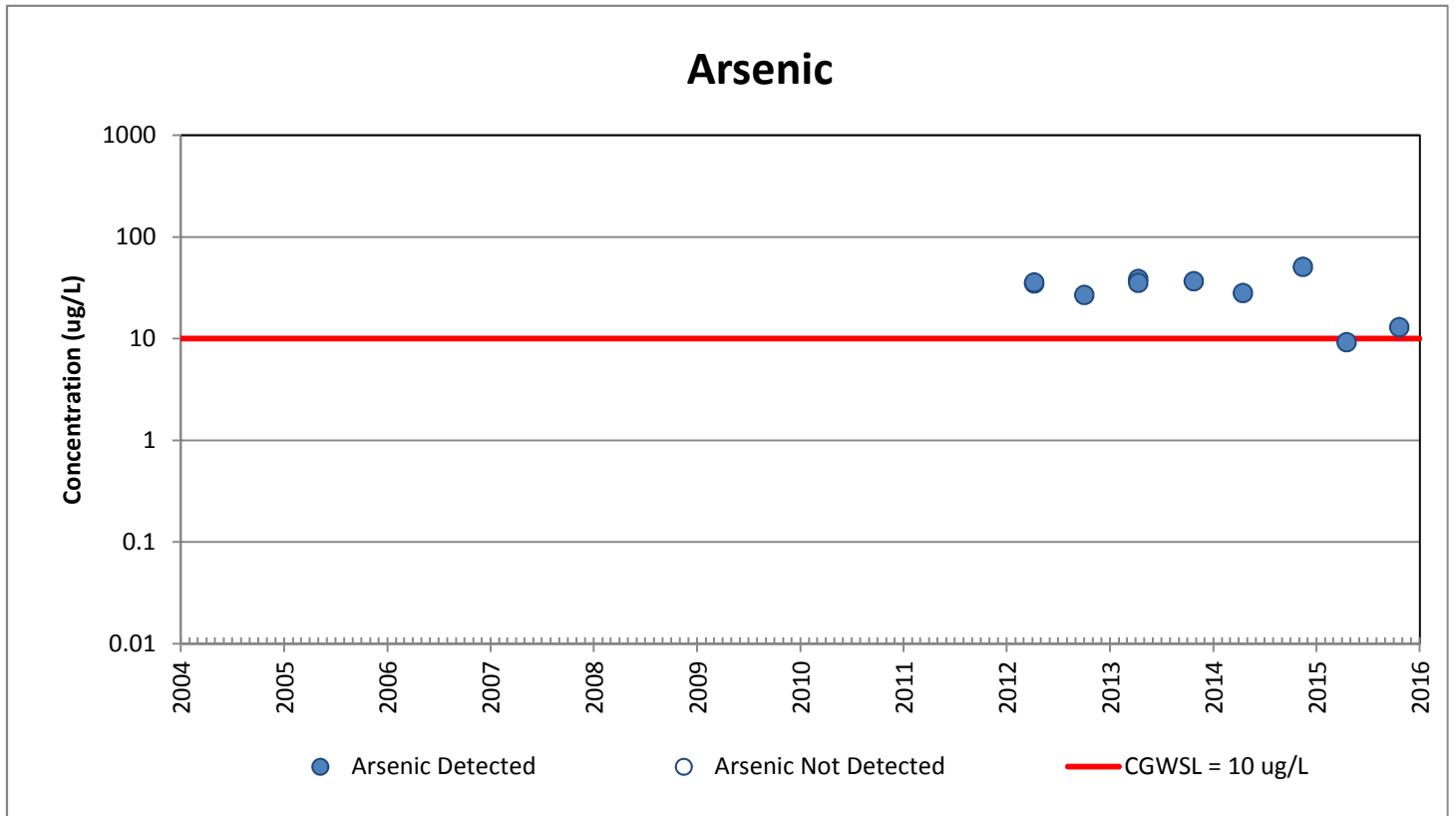
## MTBE



## Naphthalene

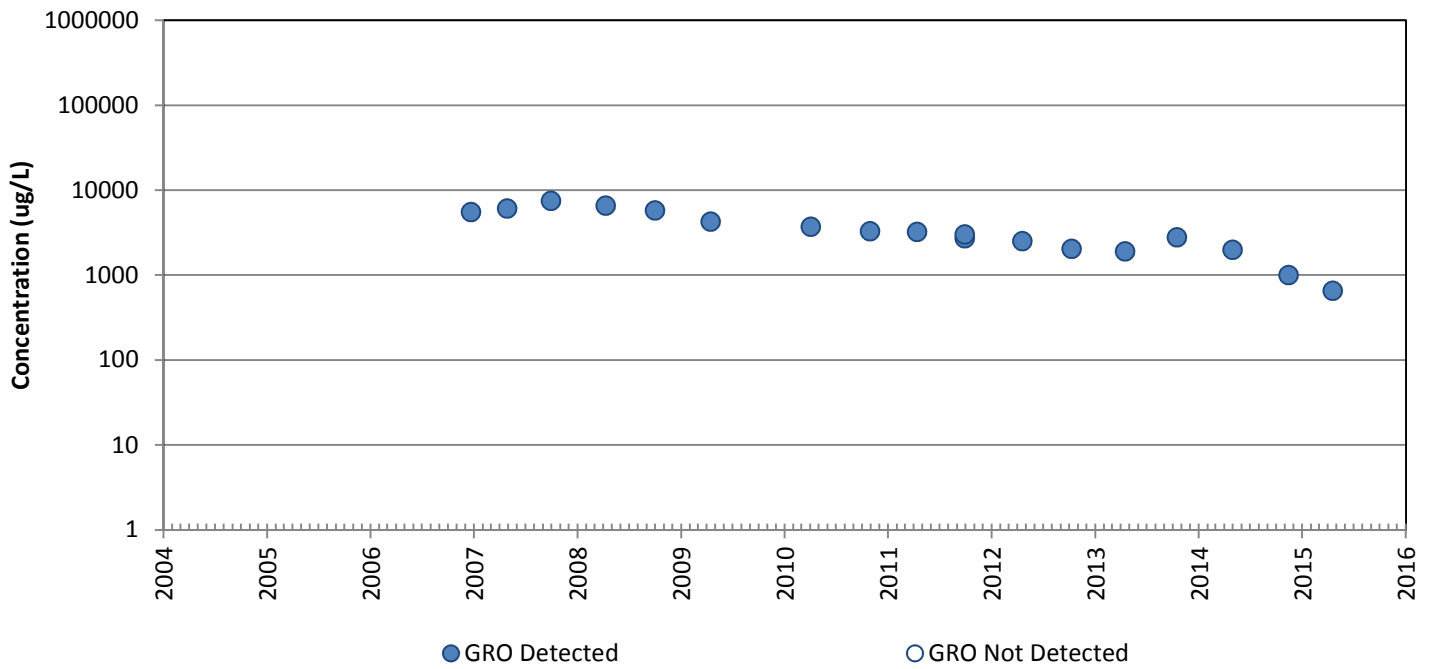


# MW-110

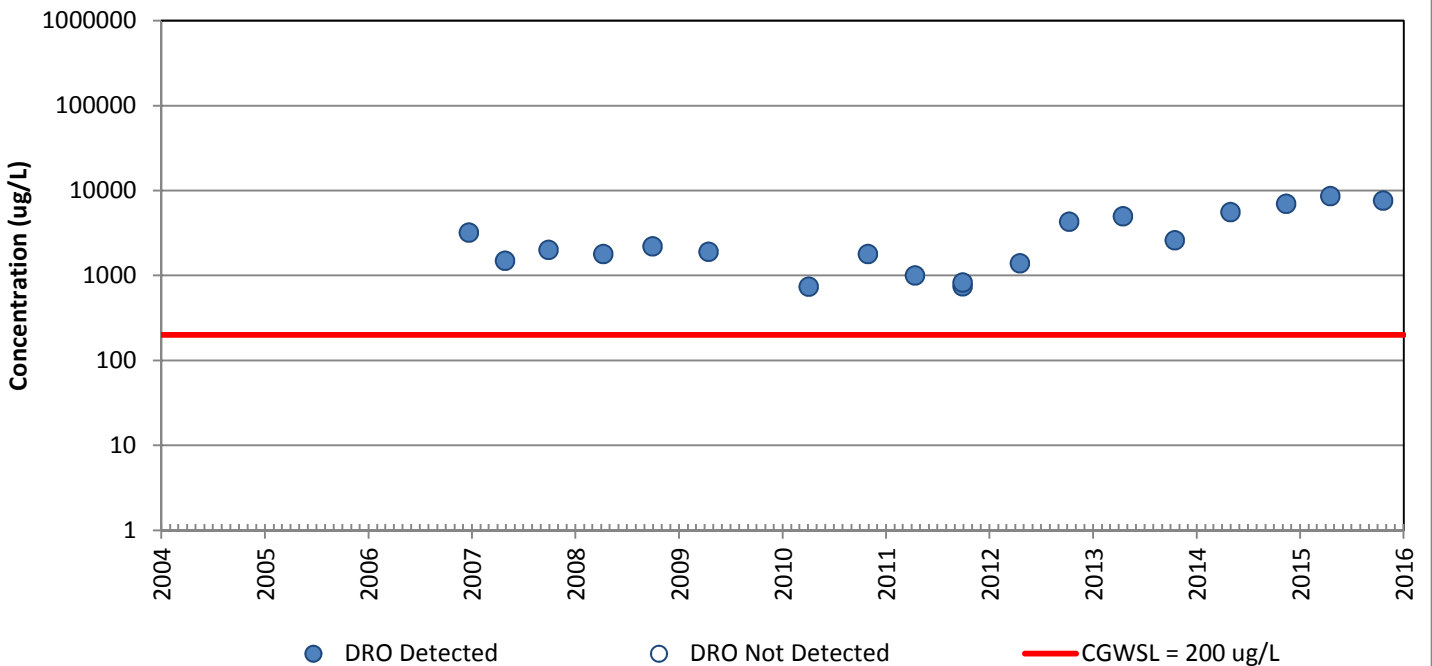


# MW-49

## GRO

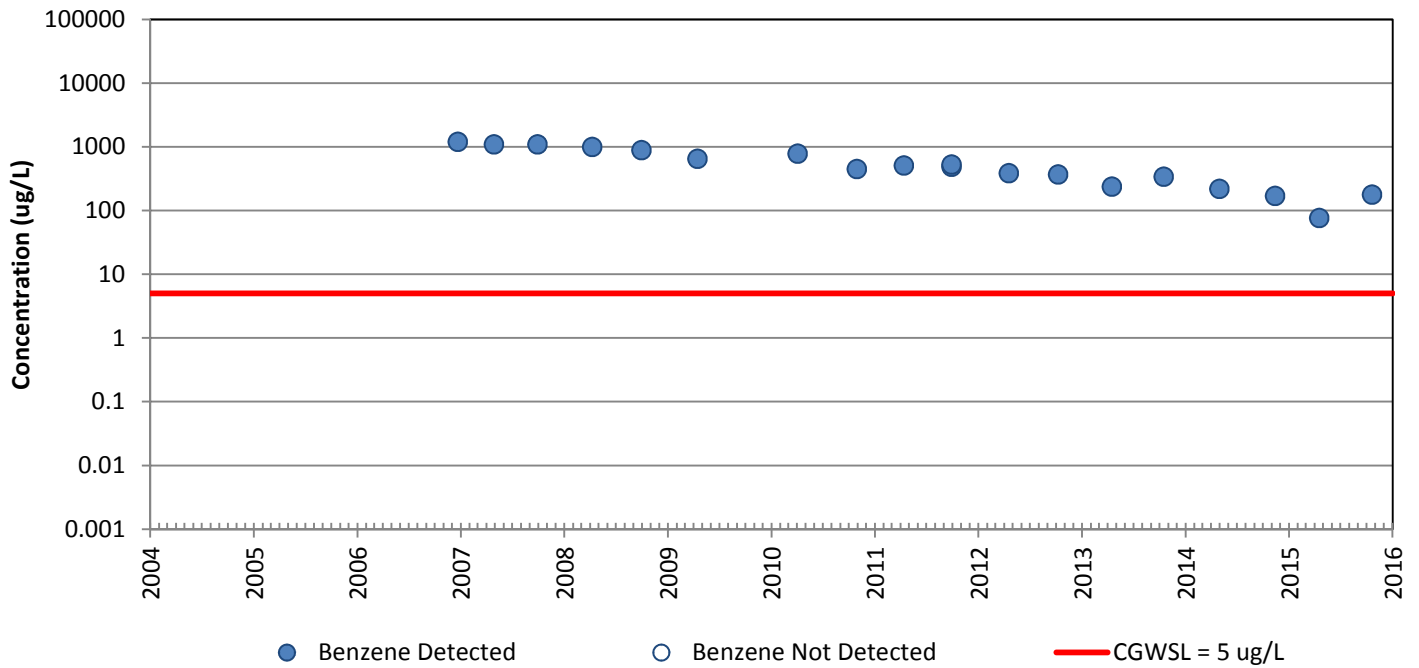


## DRO

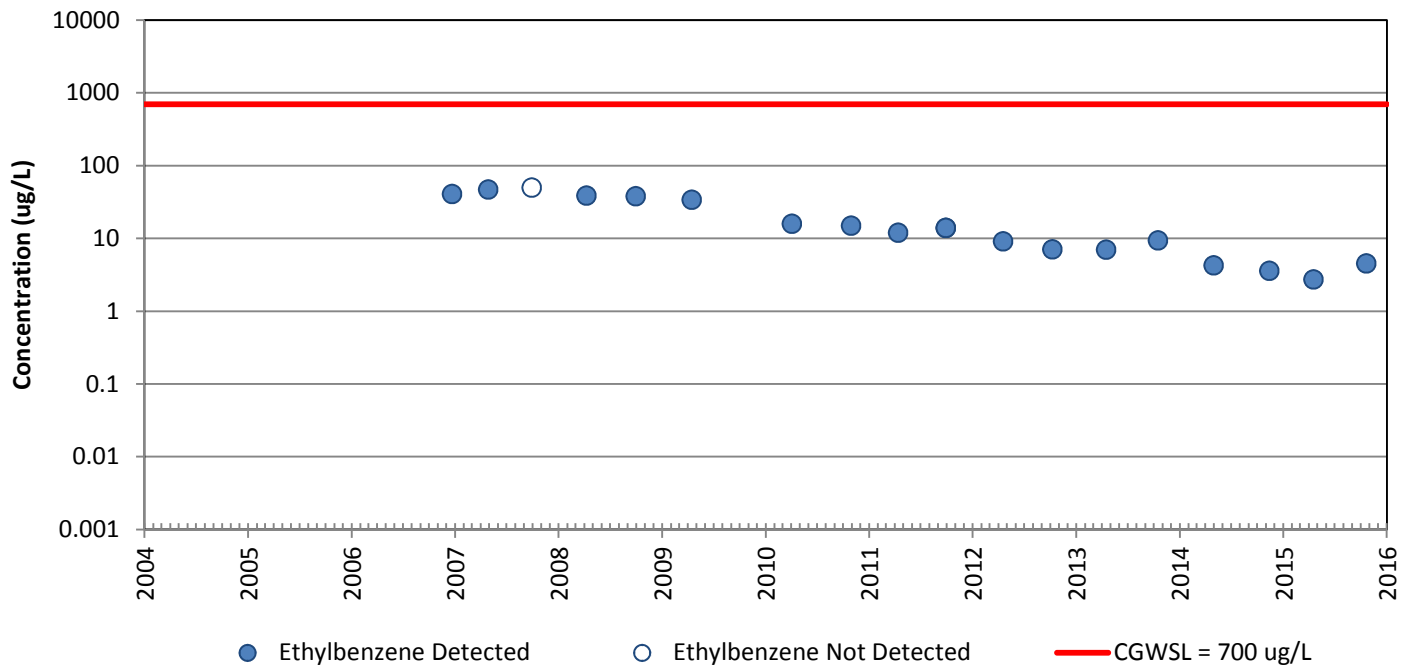


# MW-49

## Benzene

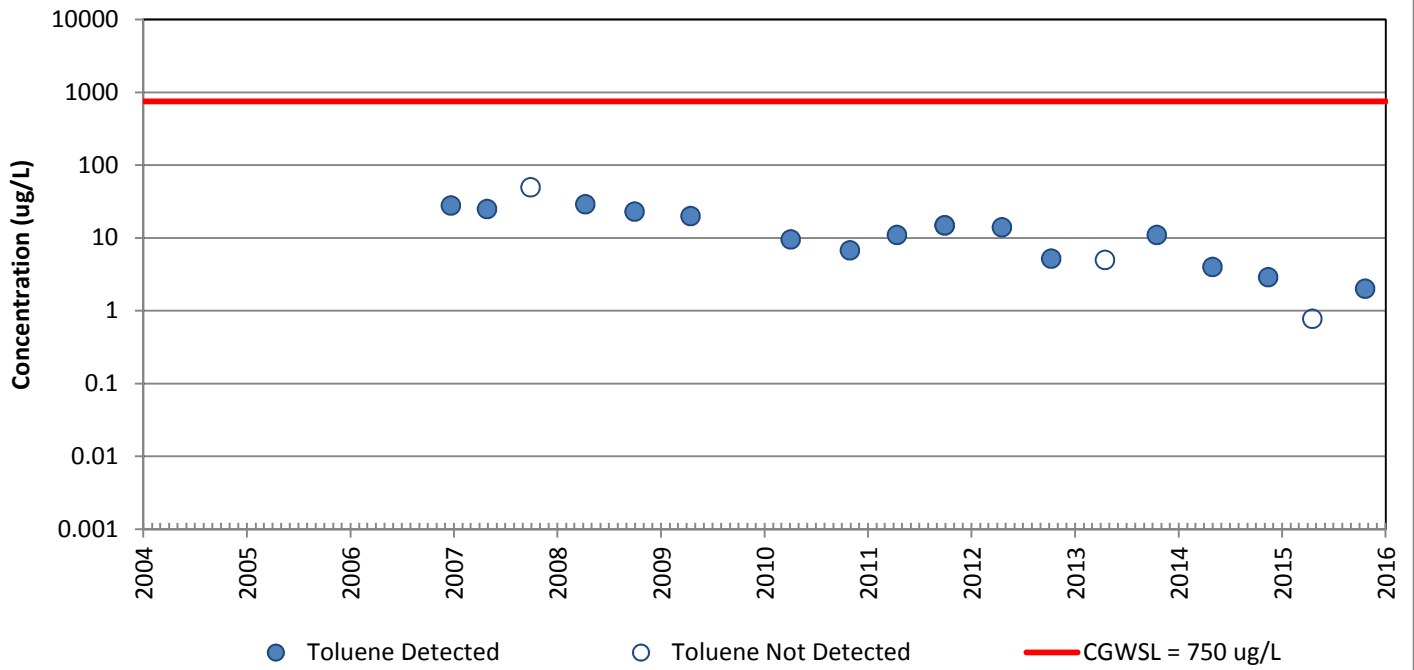


## Ethylbenzene

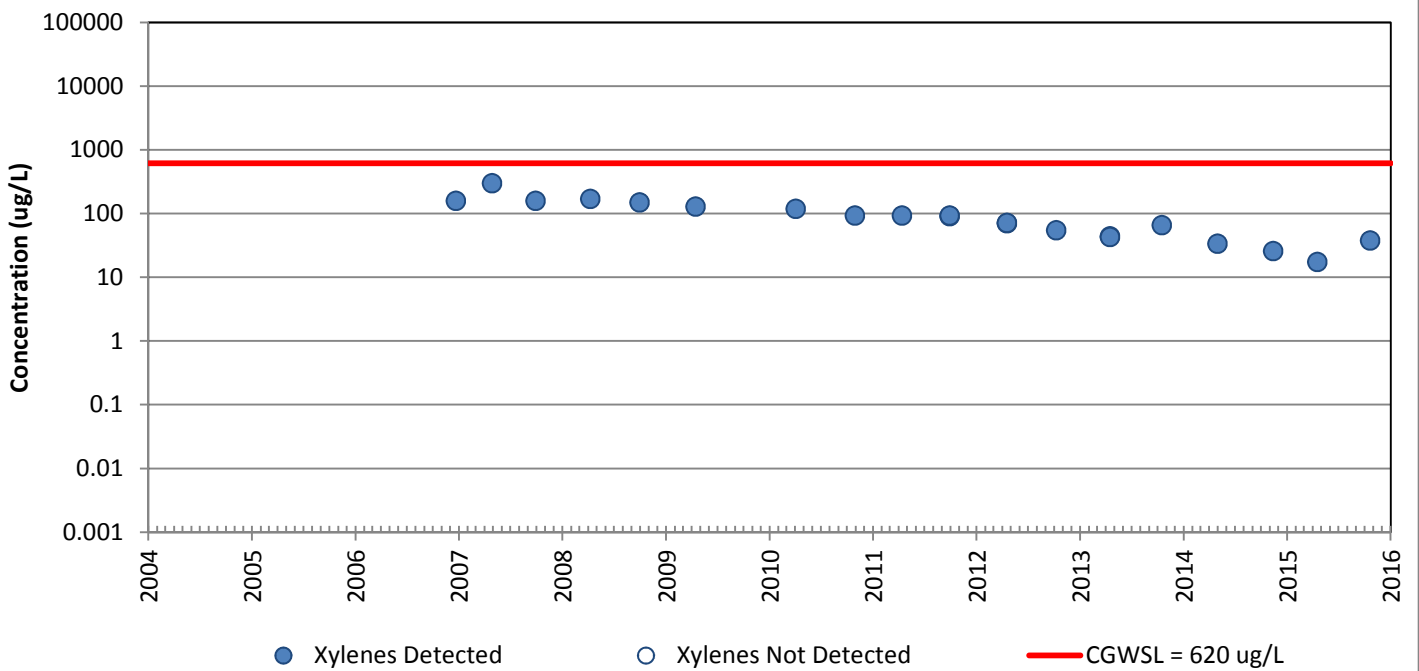


# MW-49

## Toluene

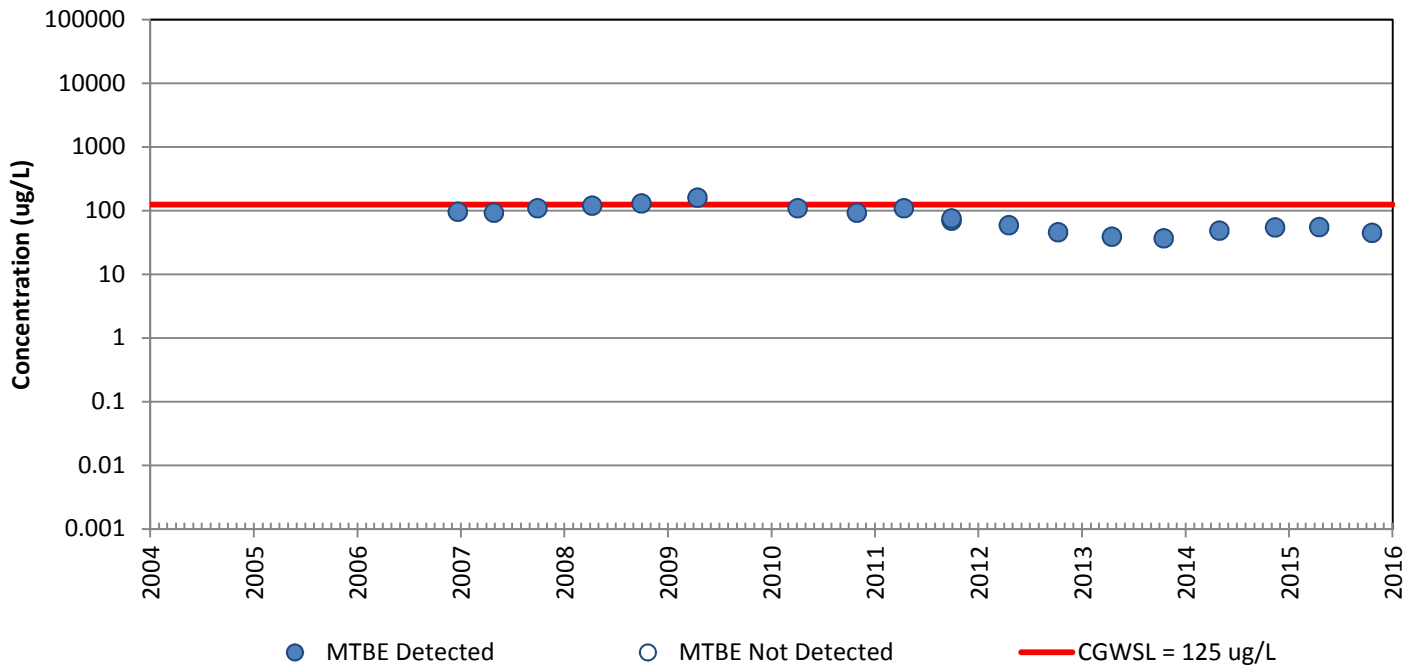


## Xylenes

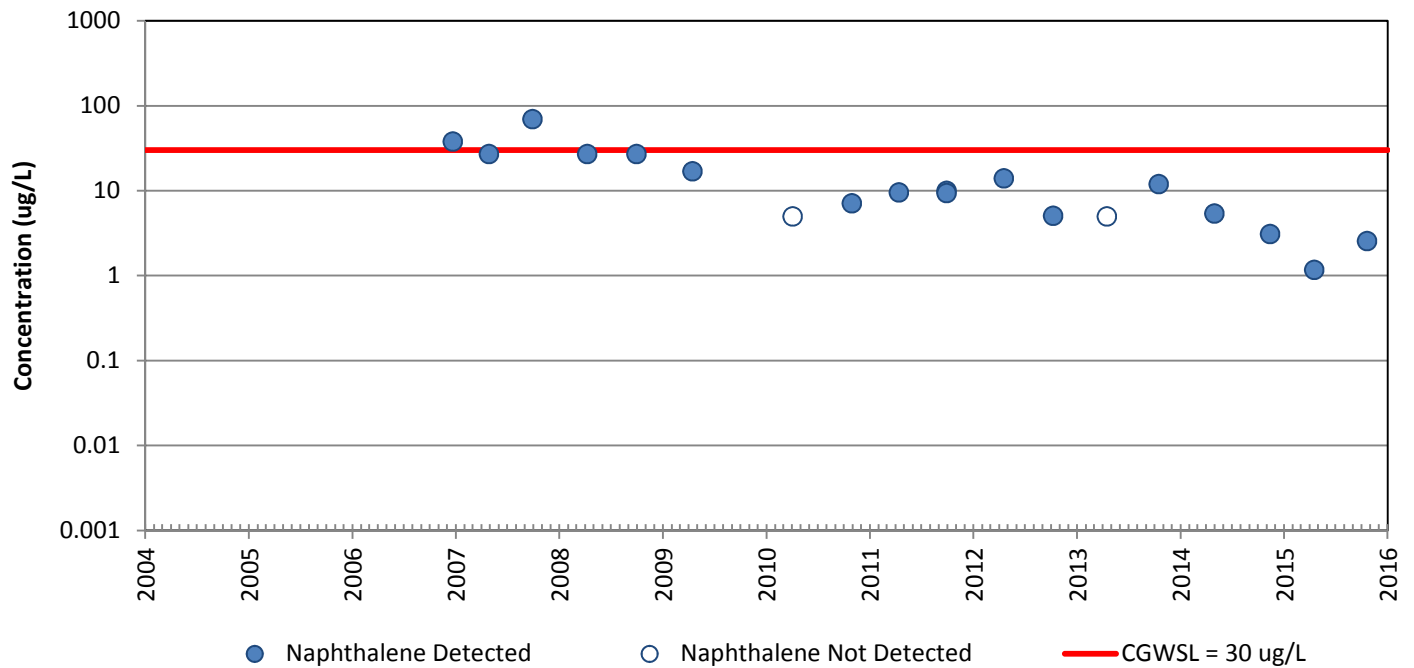


# MW-49

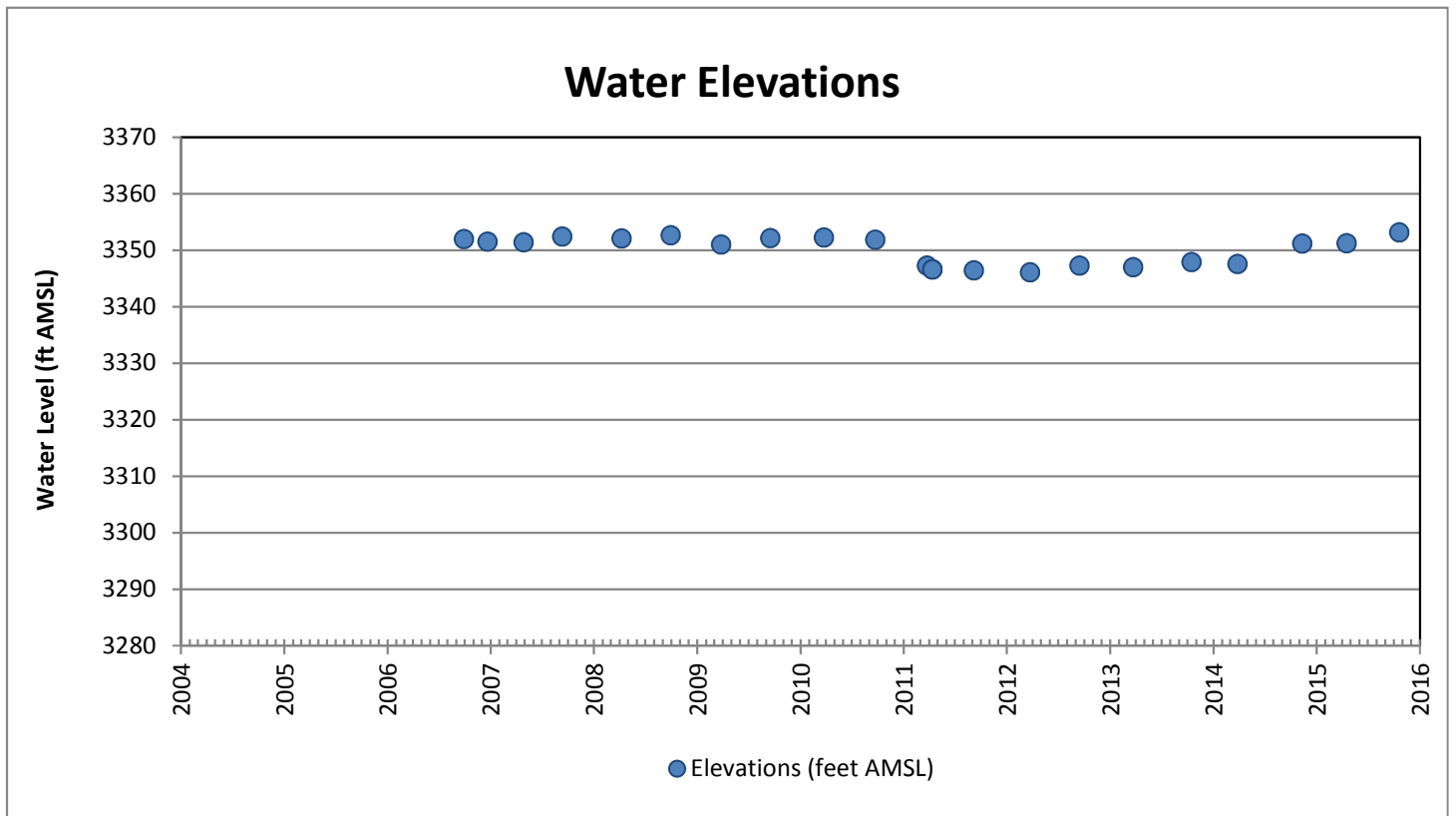
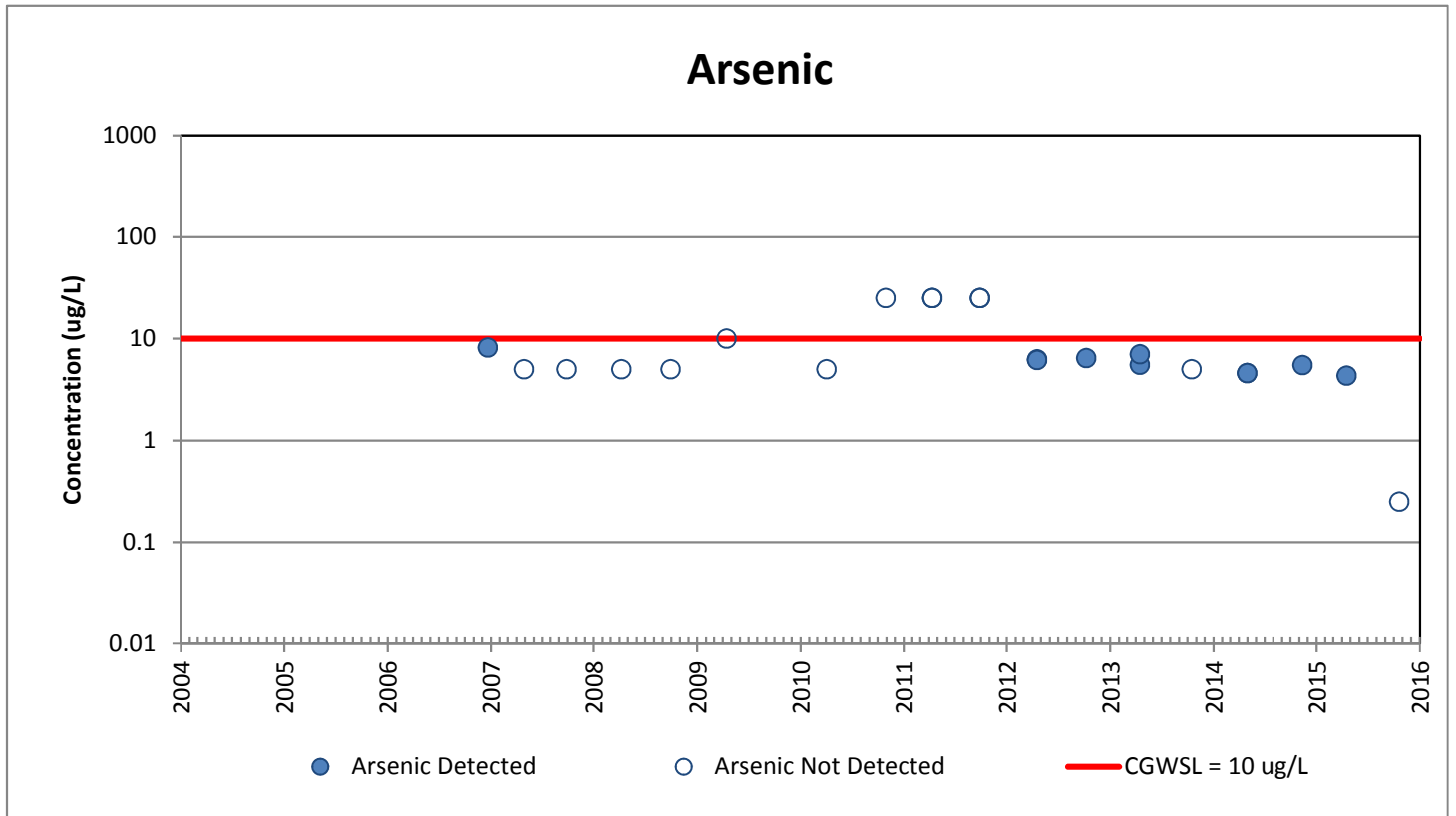
## MTBE



## Naphthalene

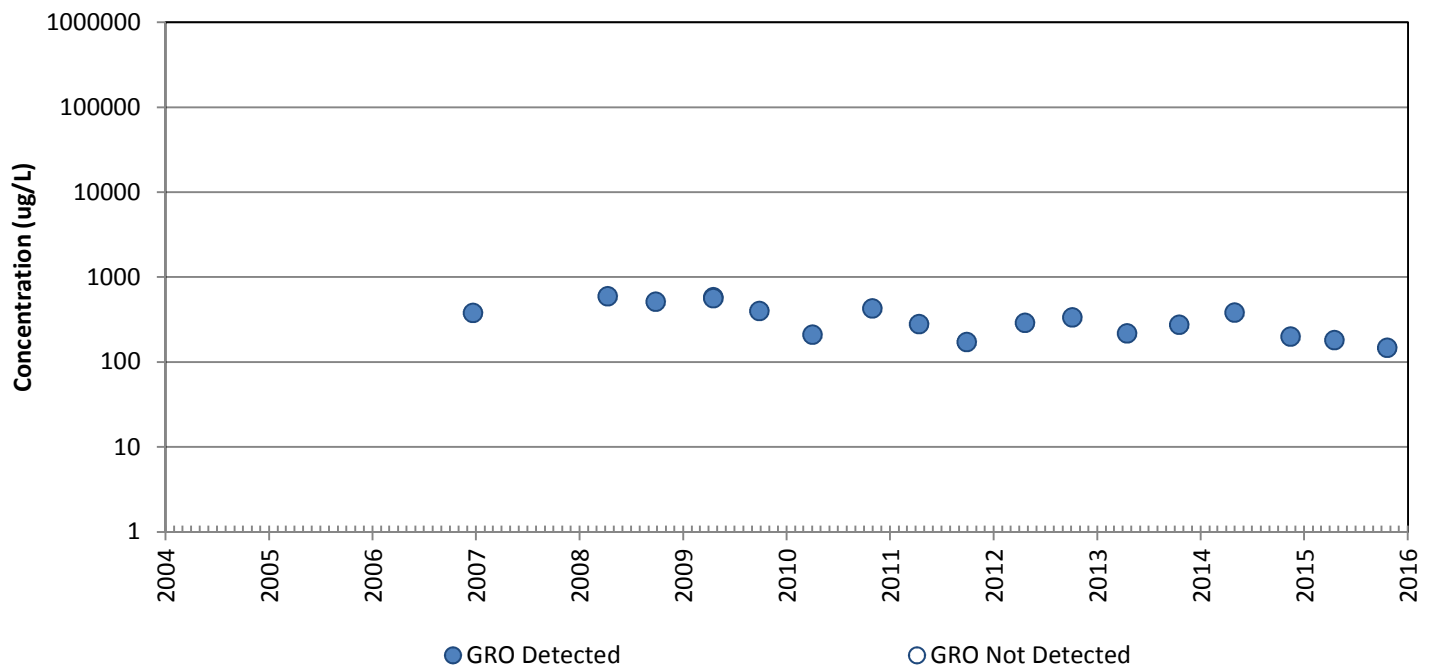


# MW-49

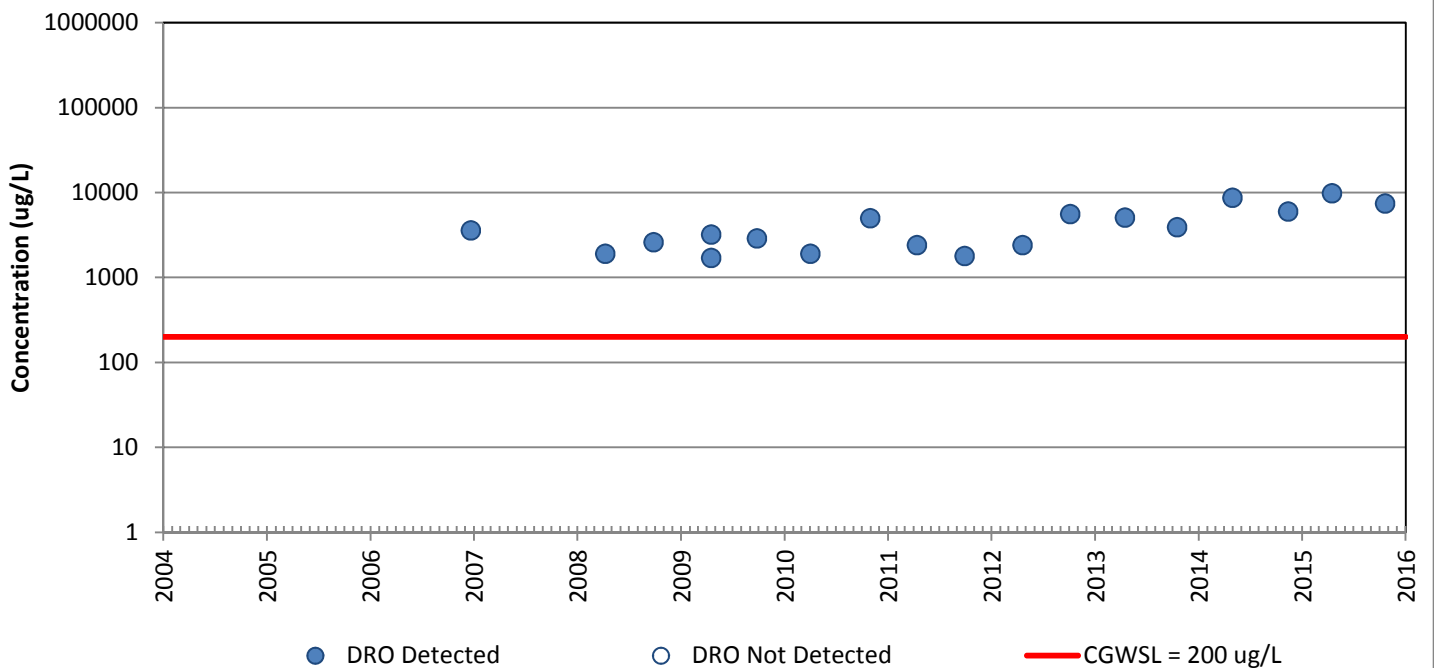


# TEL-1

## GRO

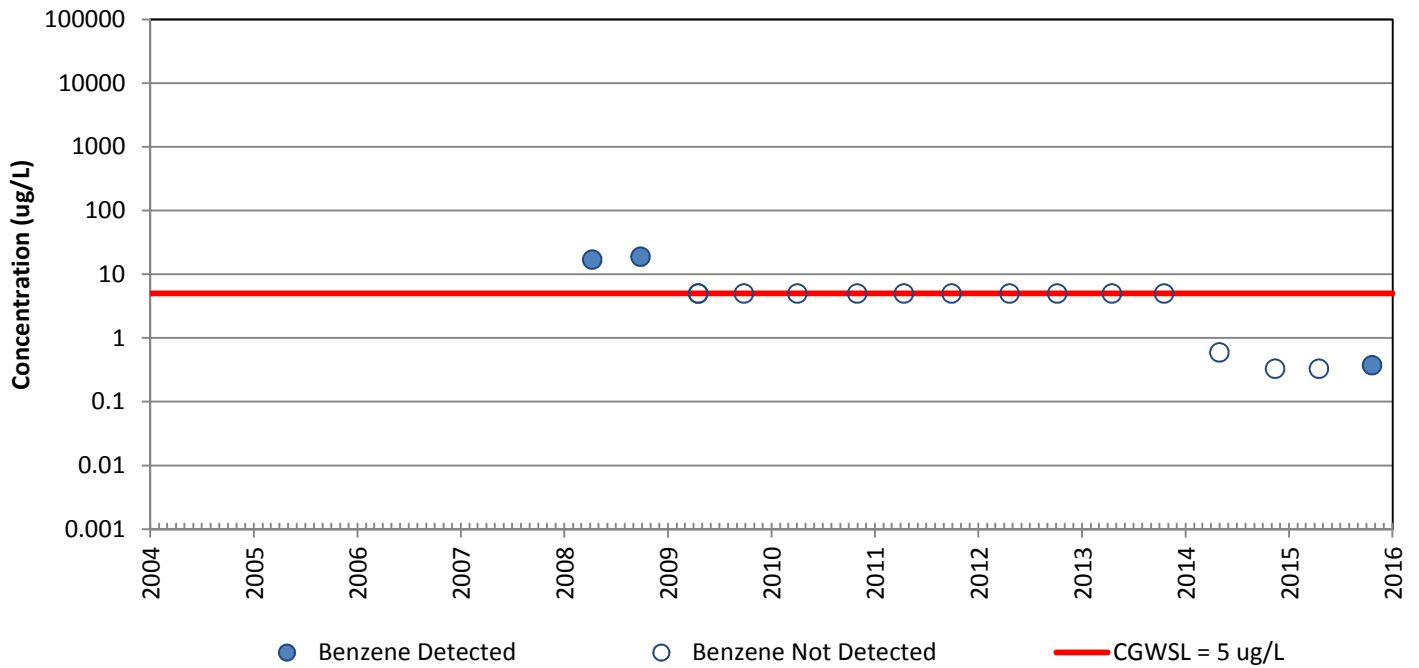


## DRO

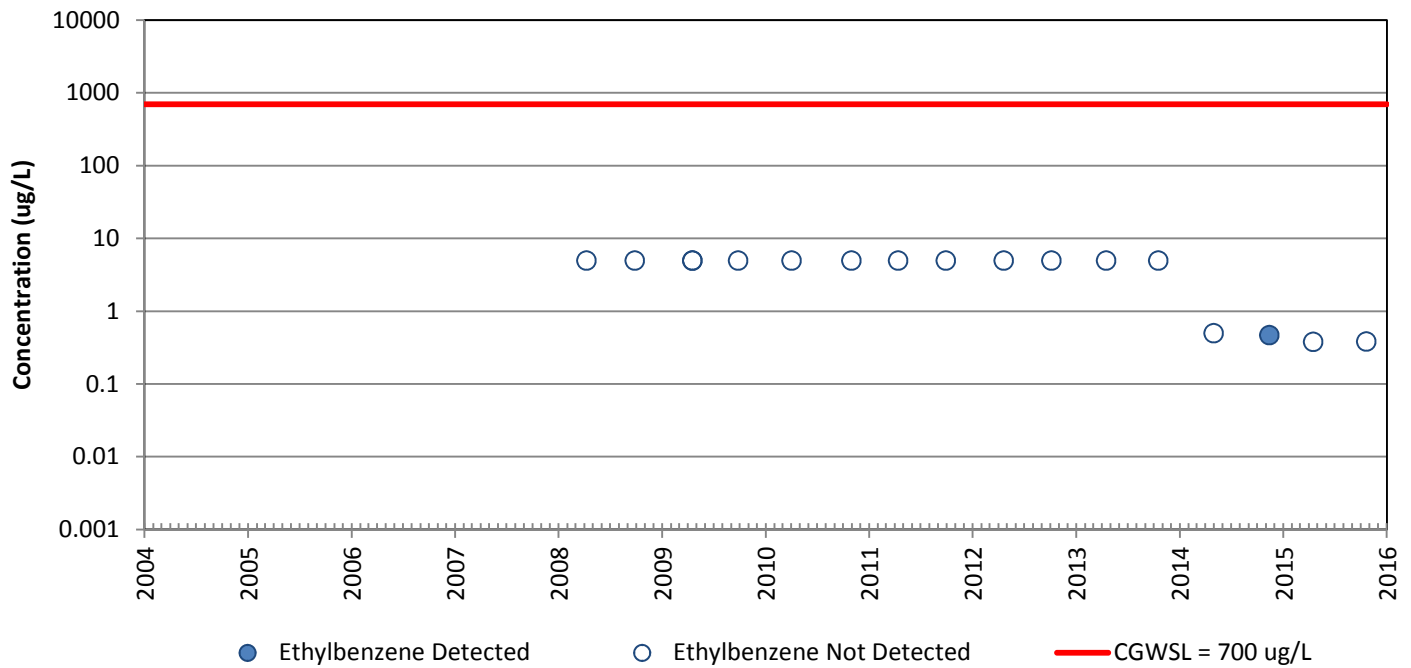


# TEL-1

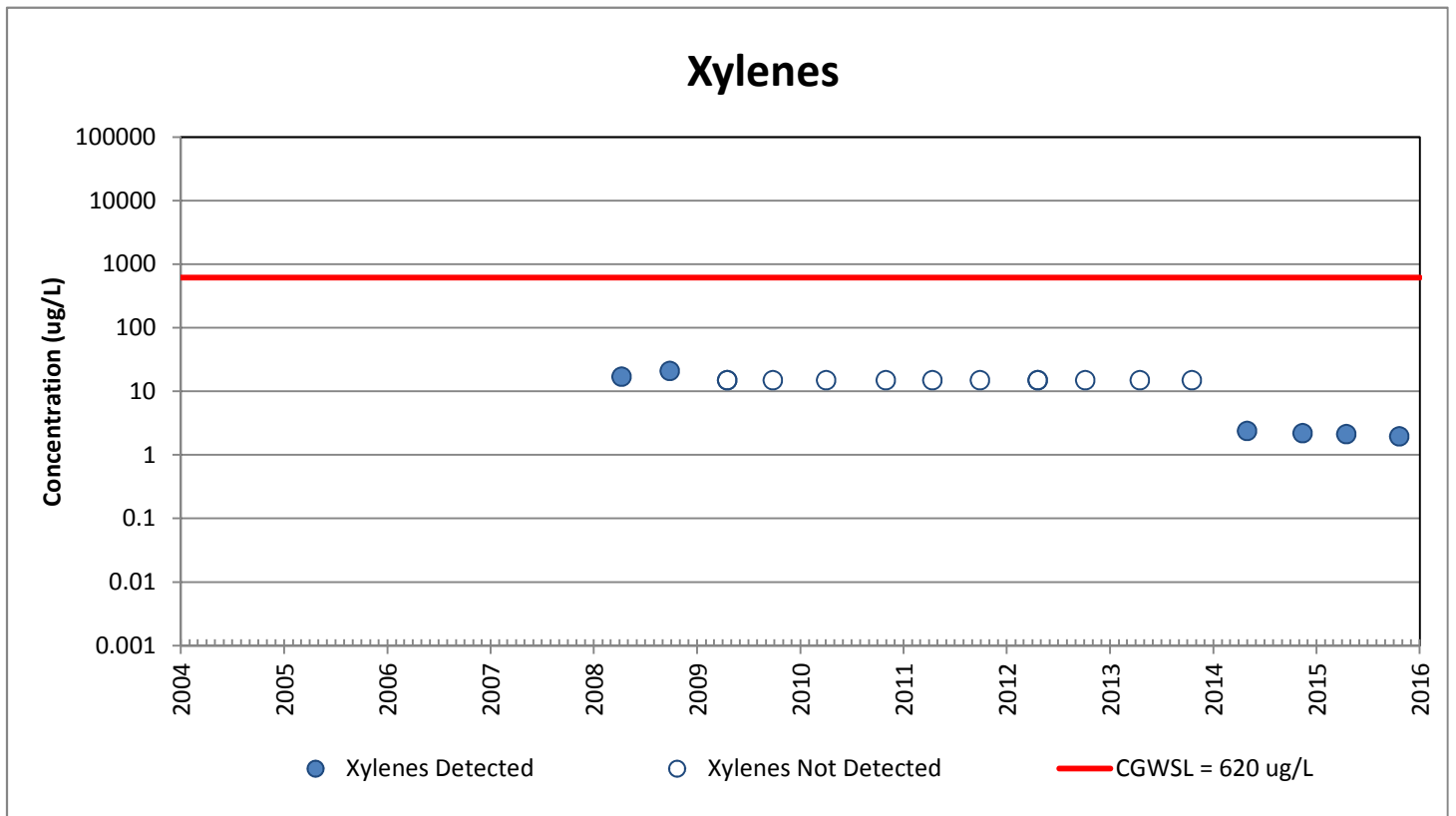
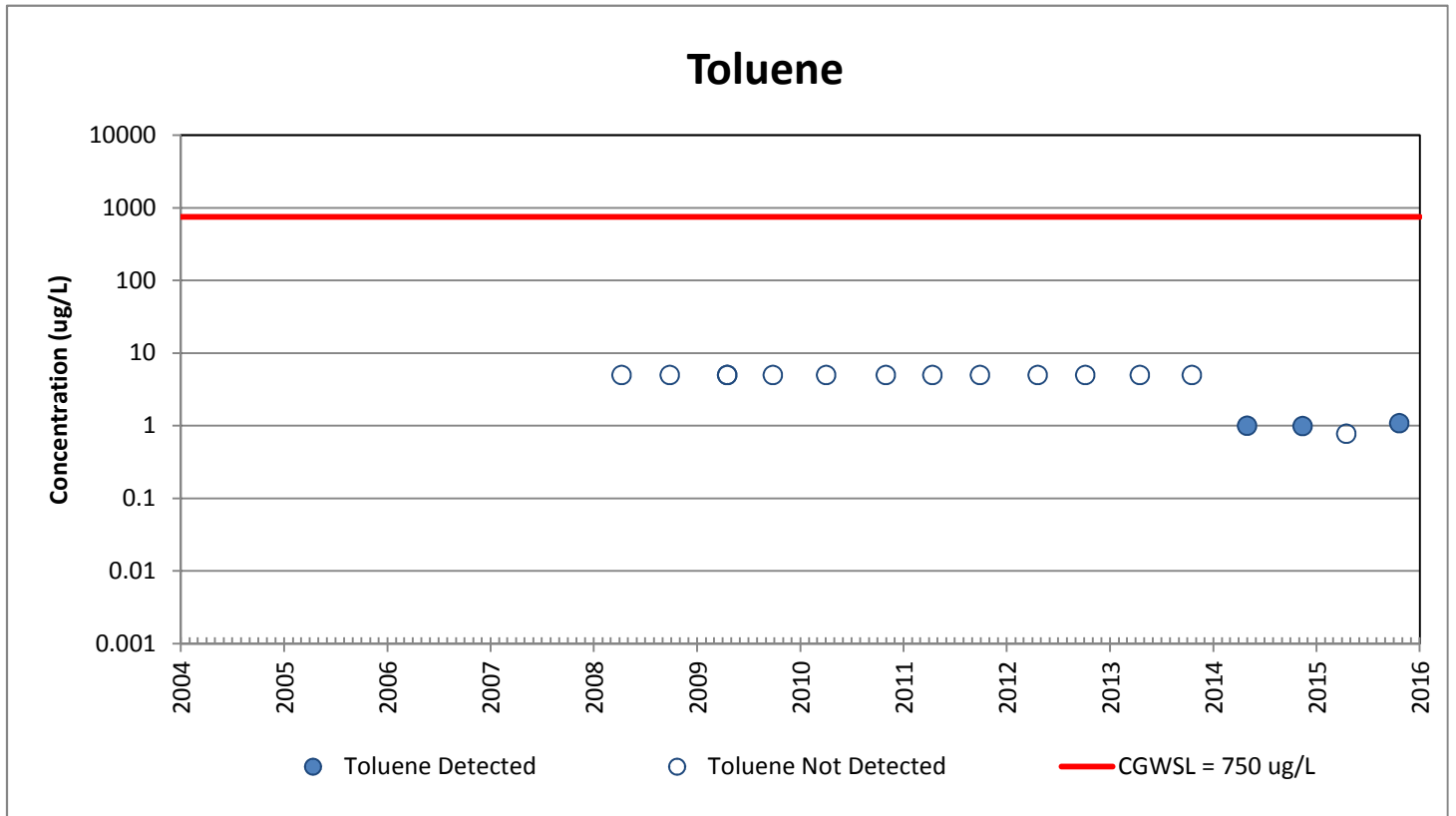
## Benzene



## Ethylbenzene

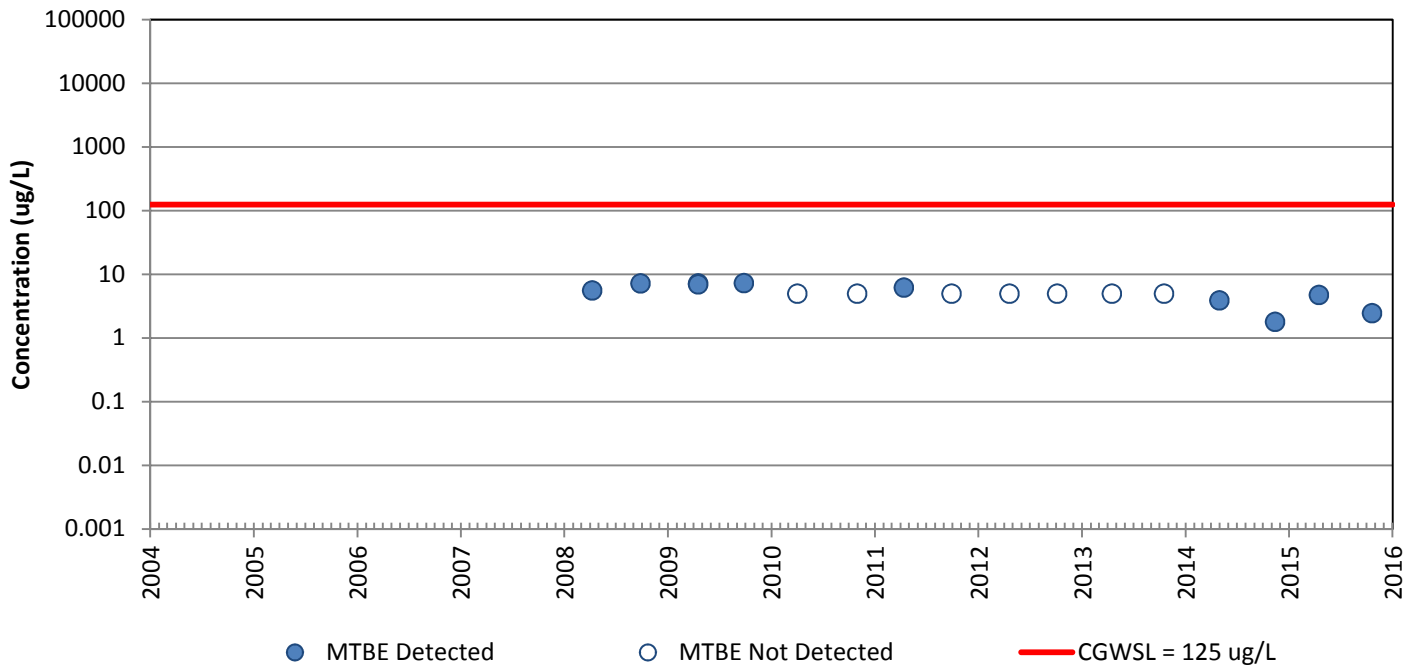


# TEL-1

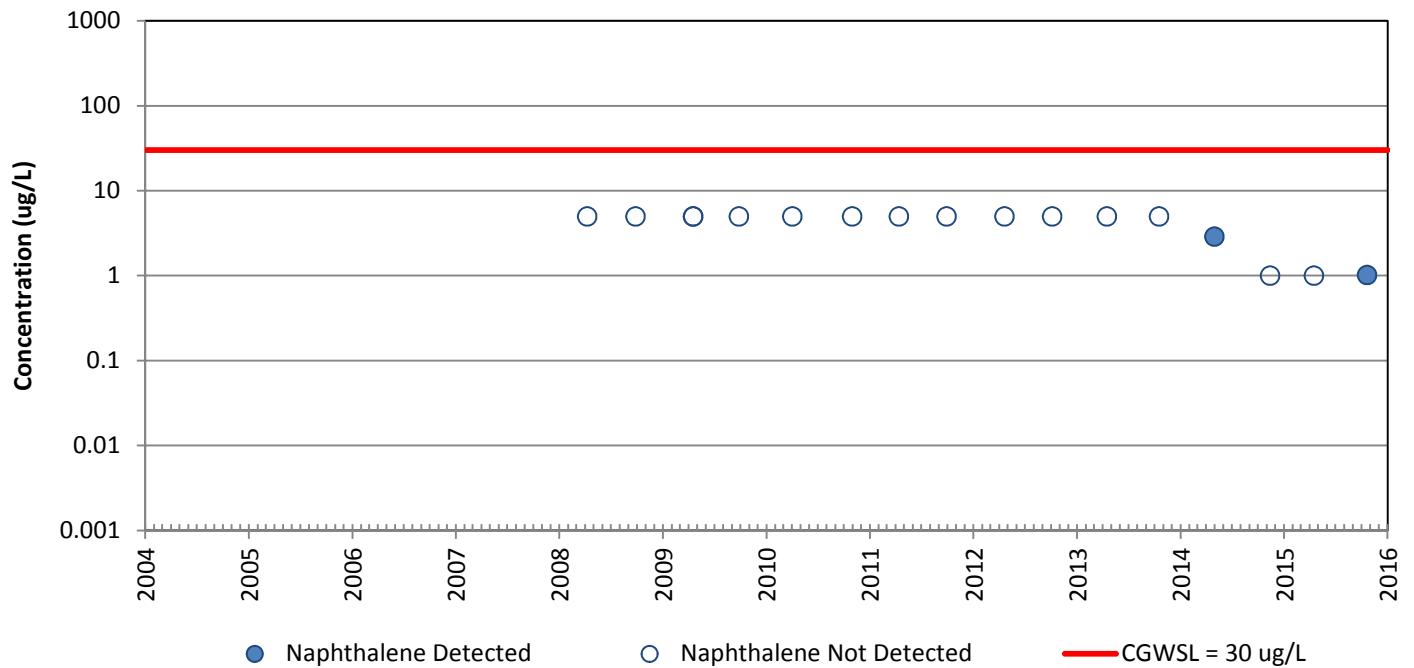


# TEL-1

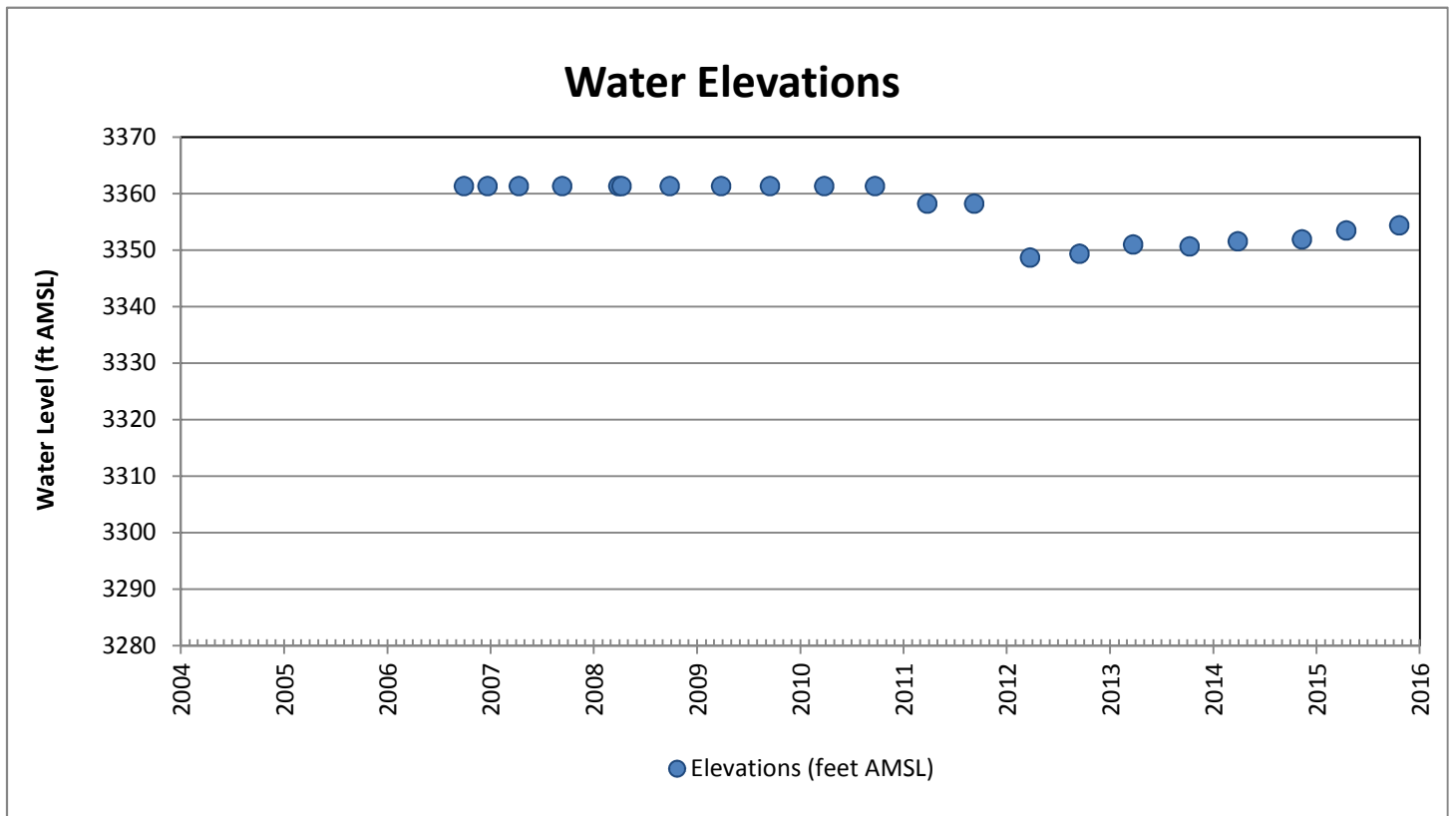
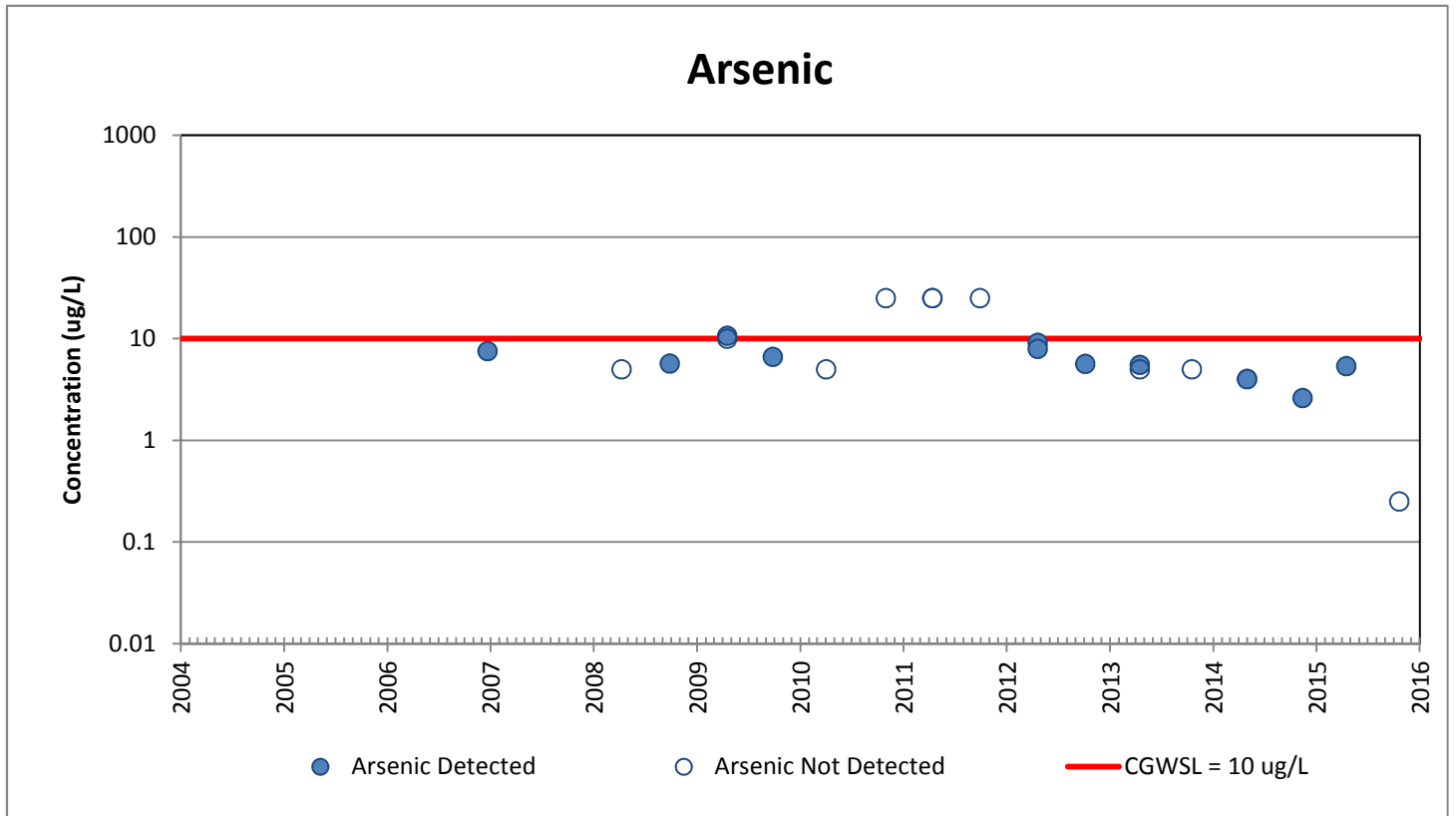
## MTBE



## Naphthalene

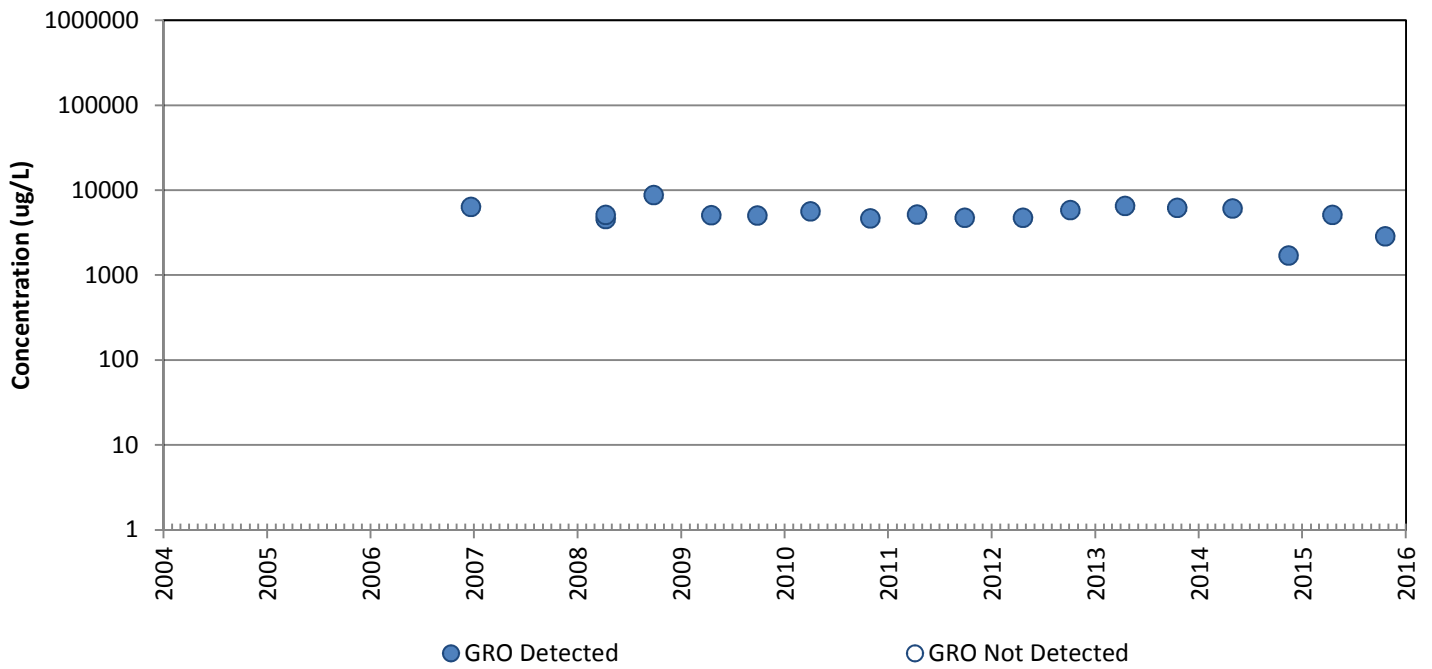


# TEL-1

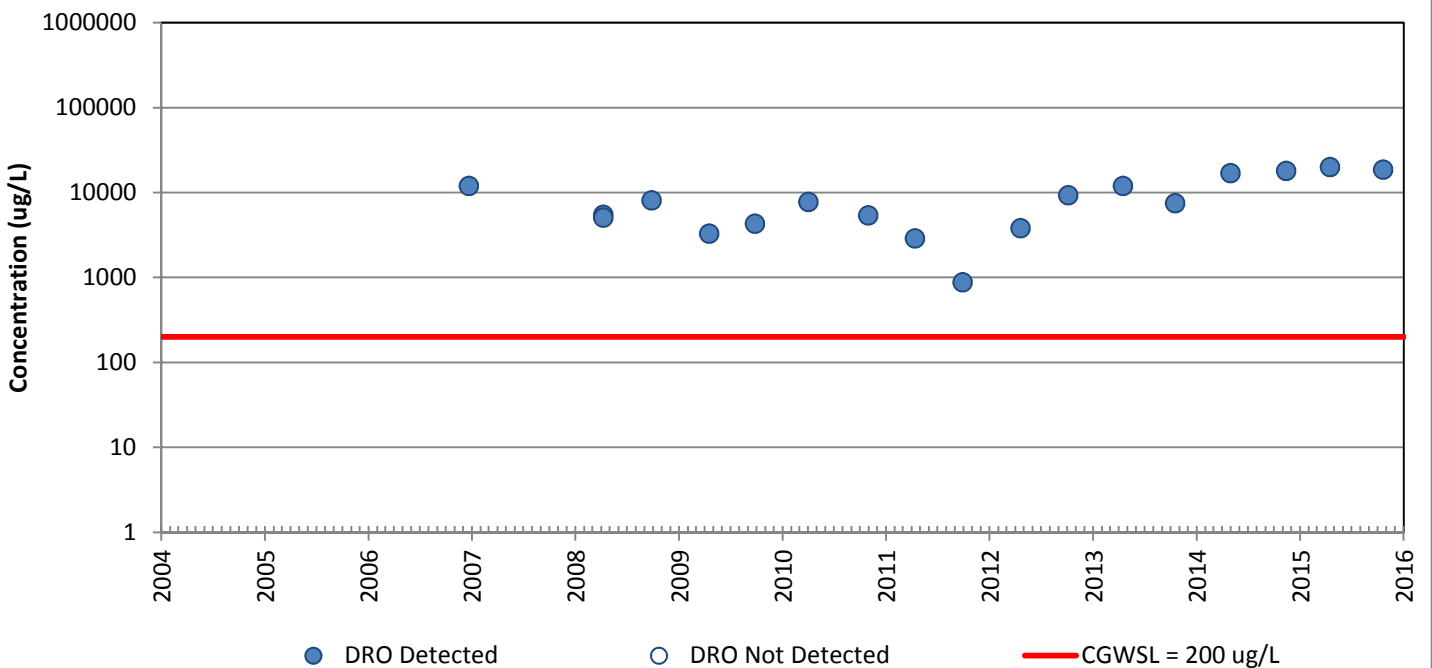


# TEL-2

## GRO

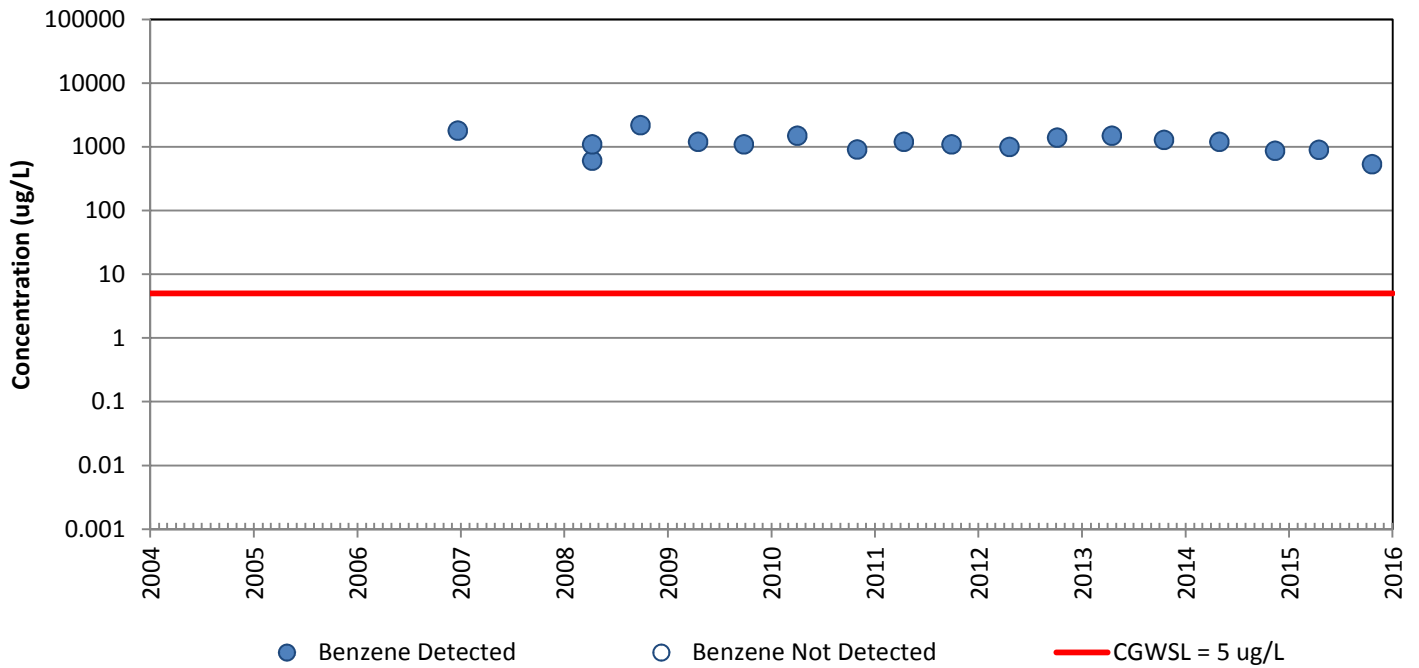


## DRO

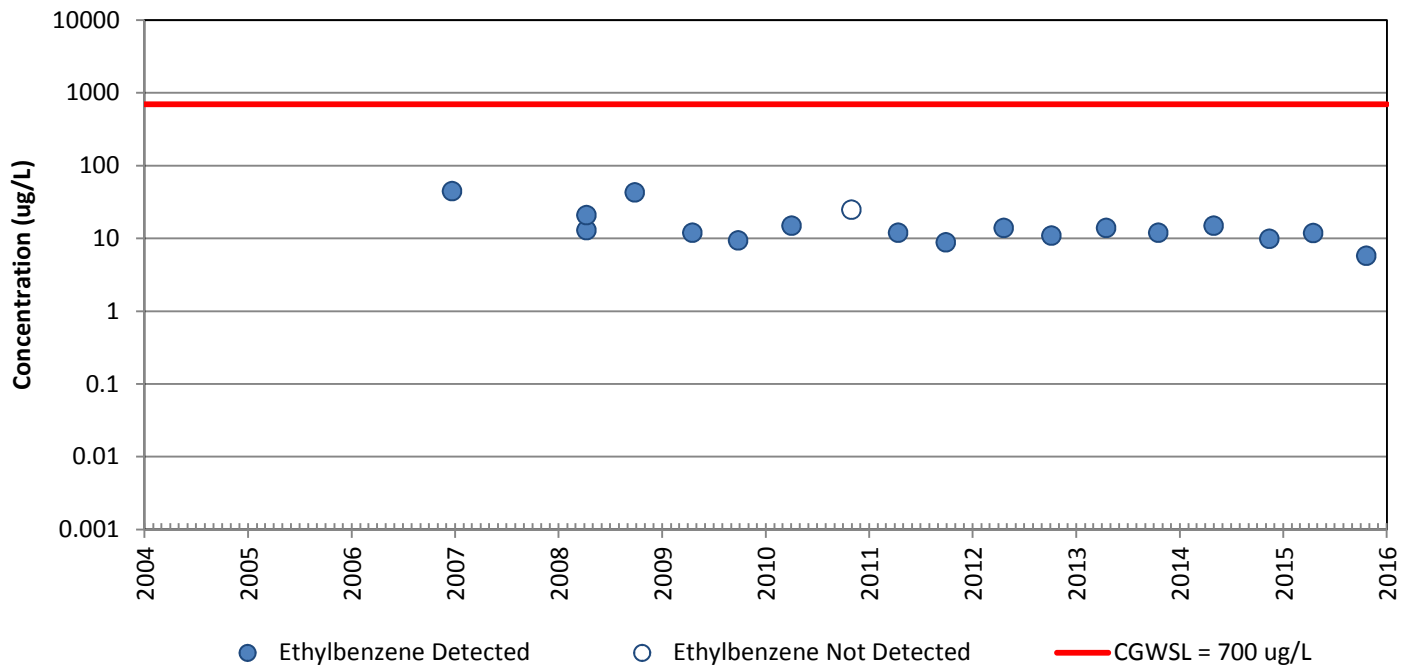


# TEL-2

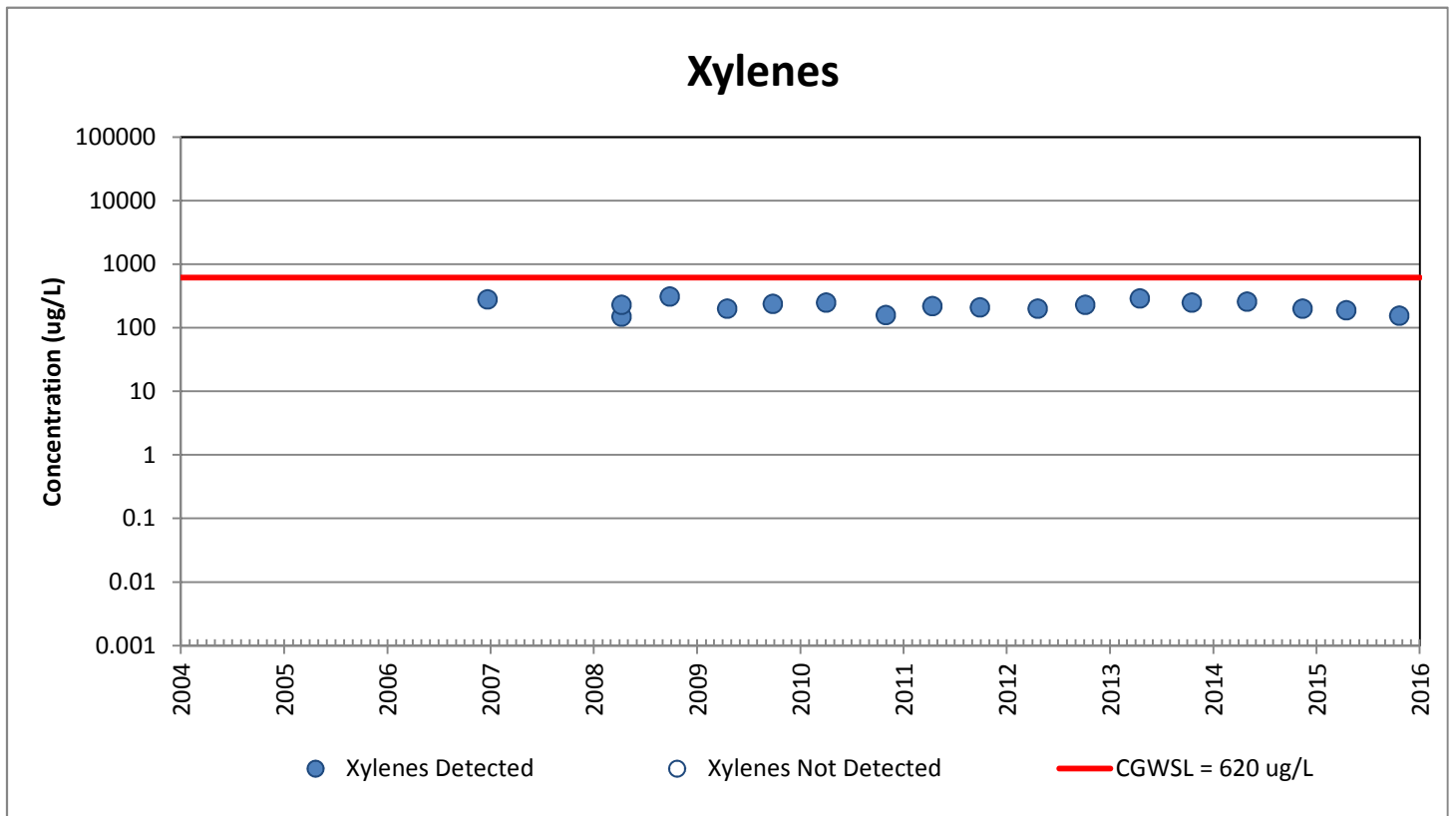
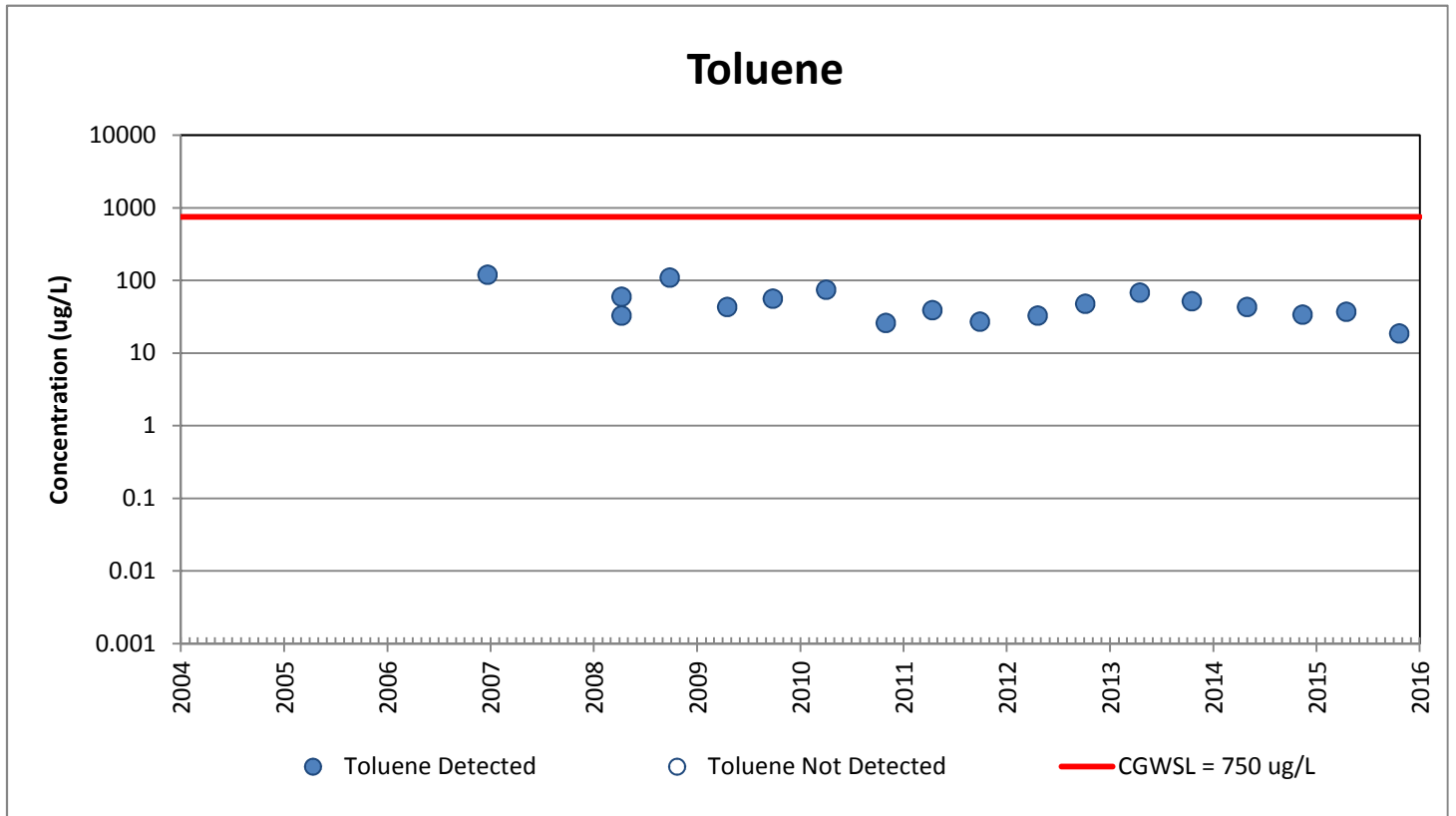
## Benzene



## Ethylbenzene

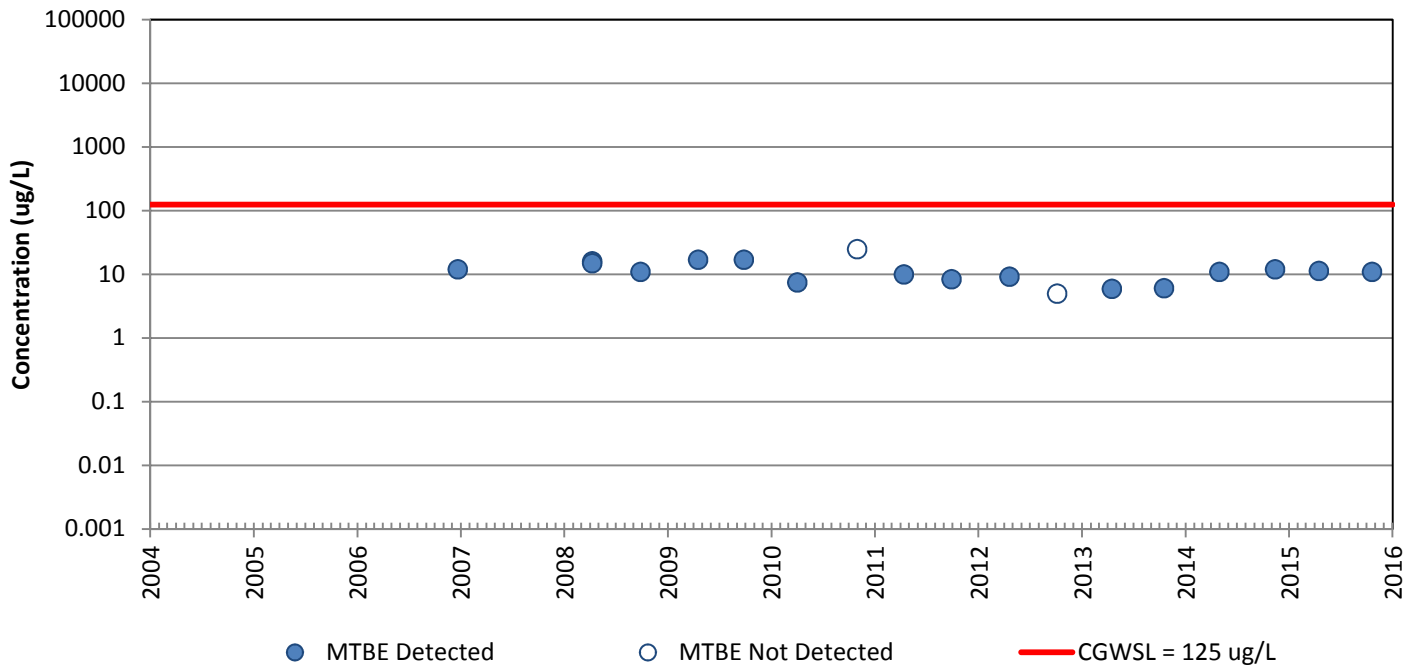


# TEL-2

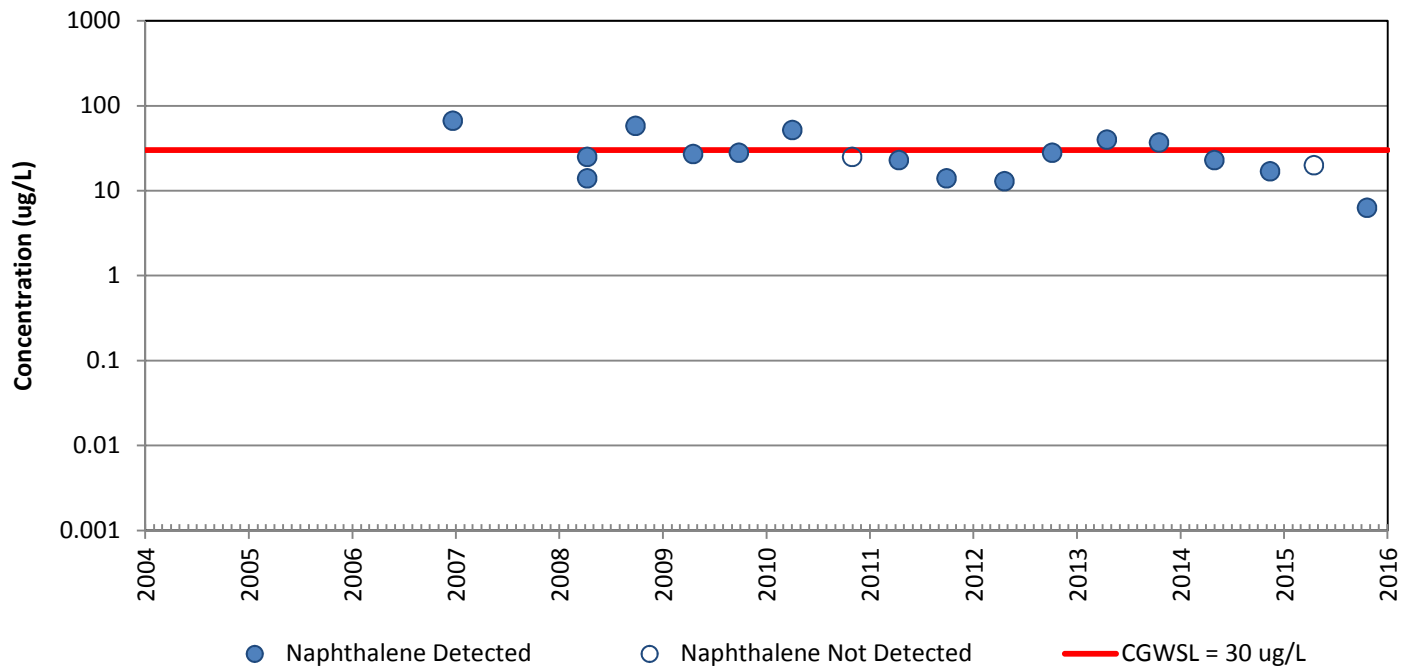


# TEL-2

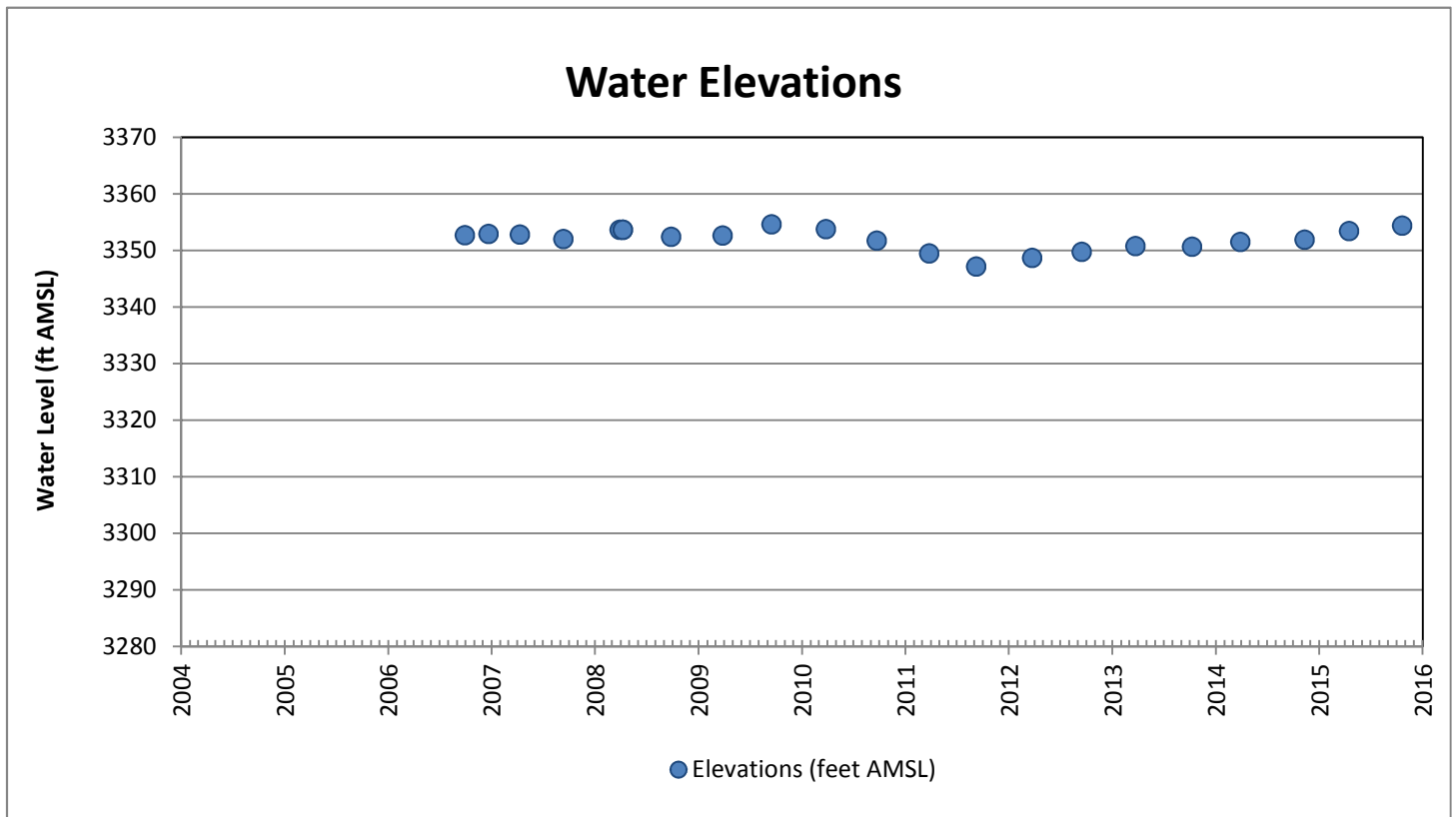
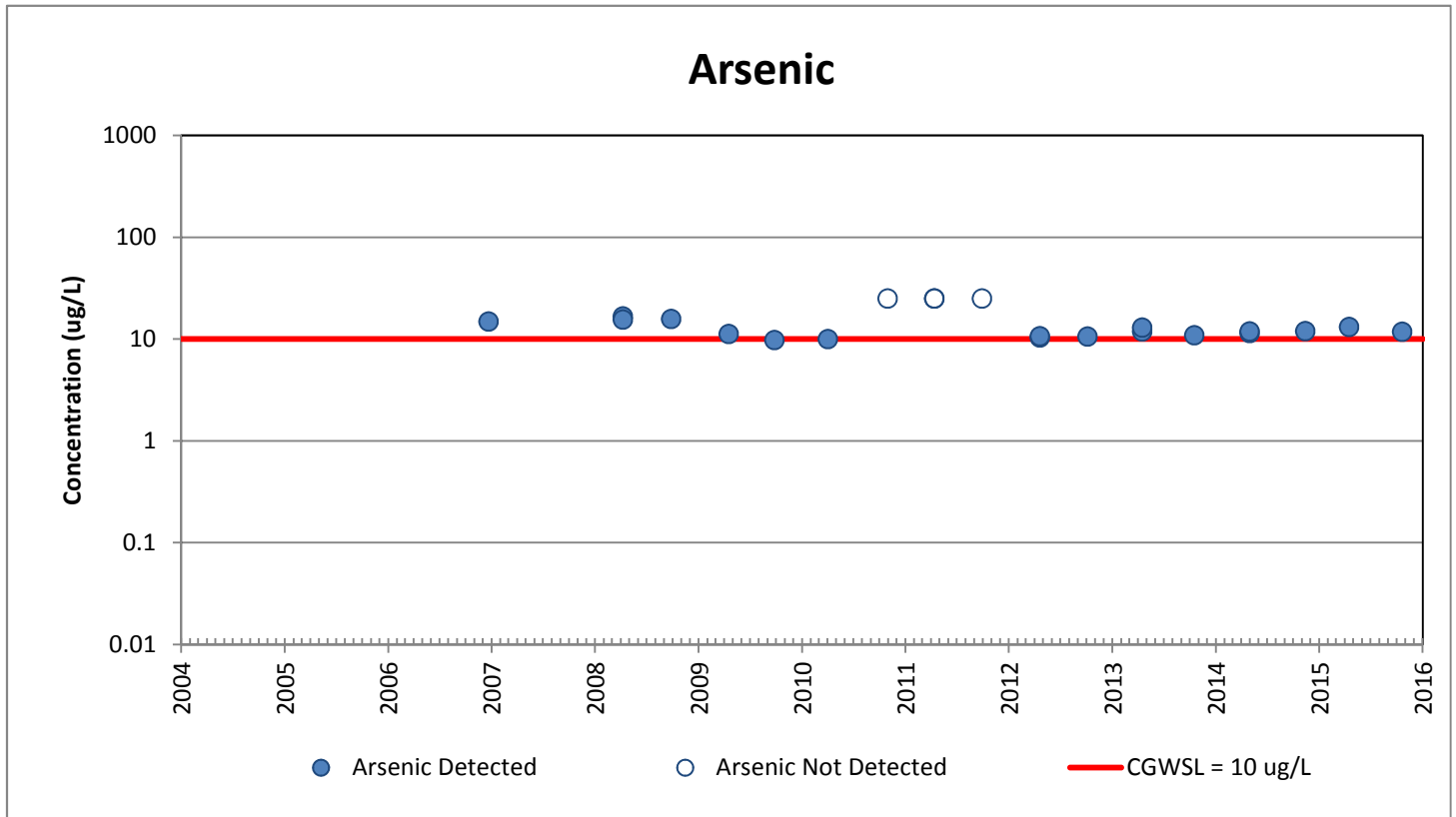
## MTBE



## Naphthalene

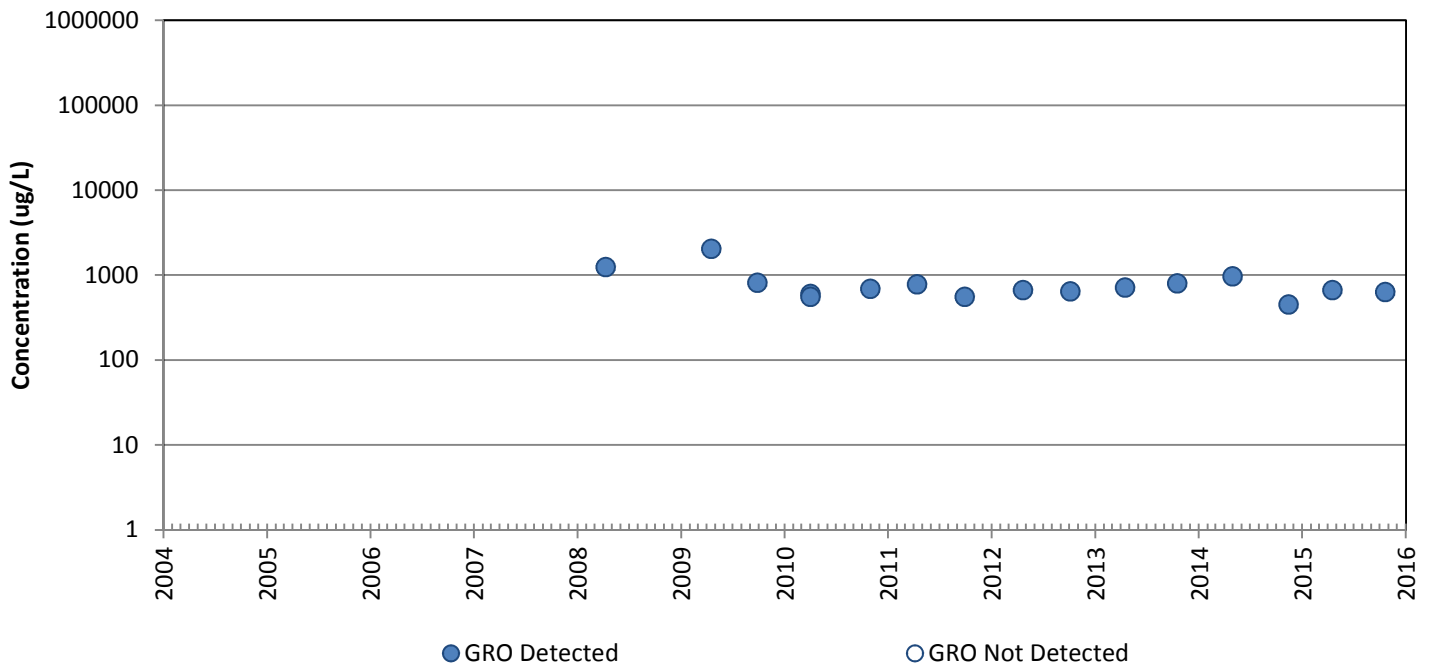


# TEL-2

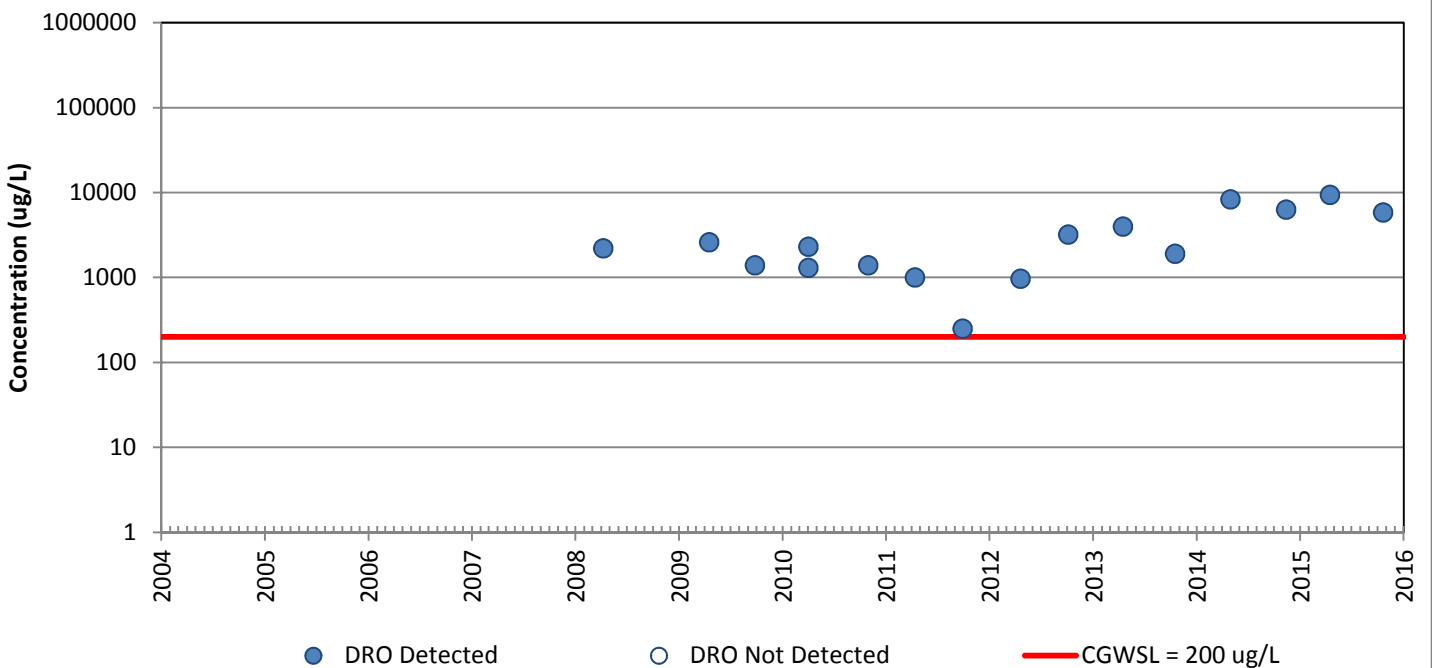


# TEL-3

## GRO

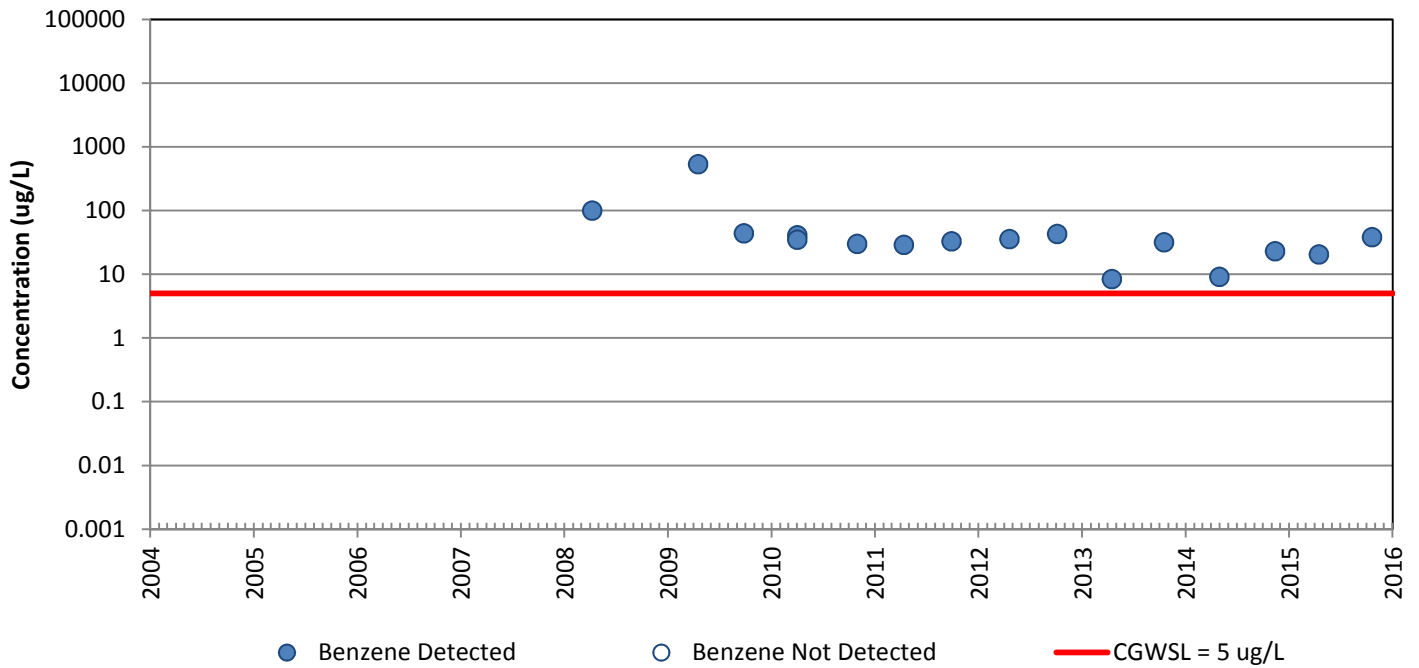


## DRO

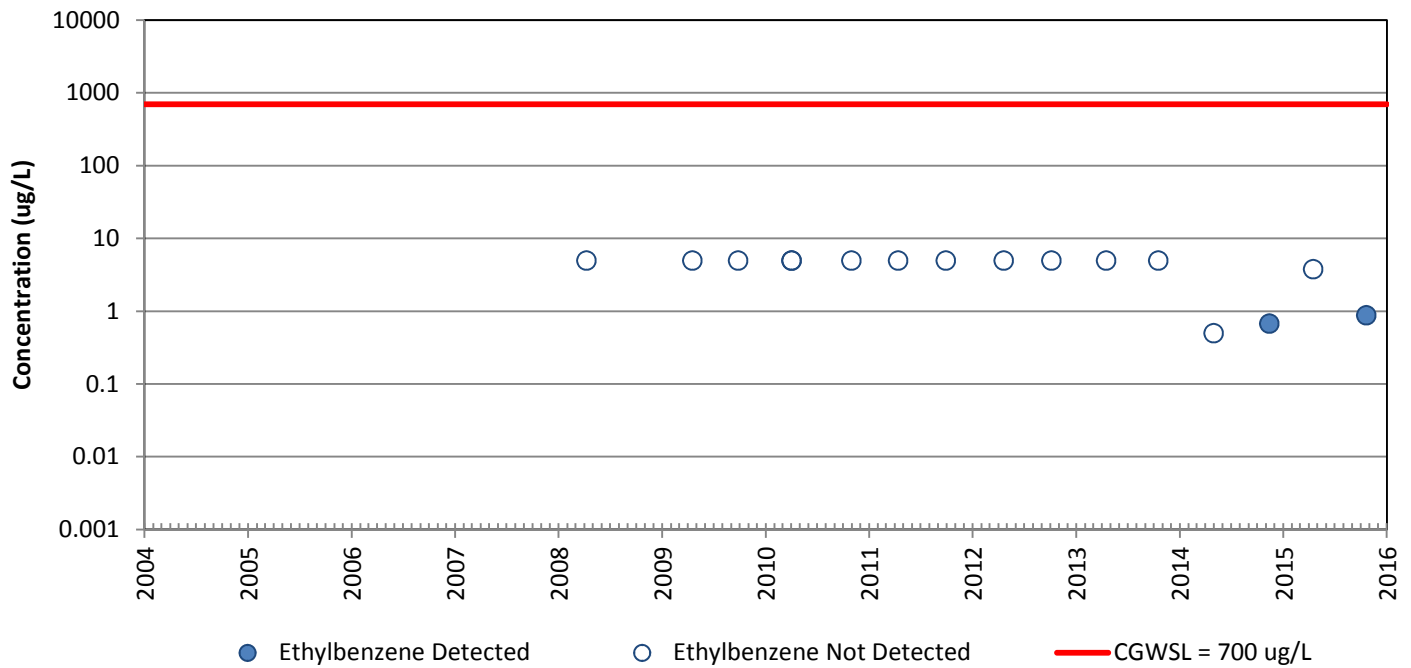


# TEL-3

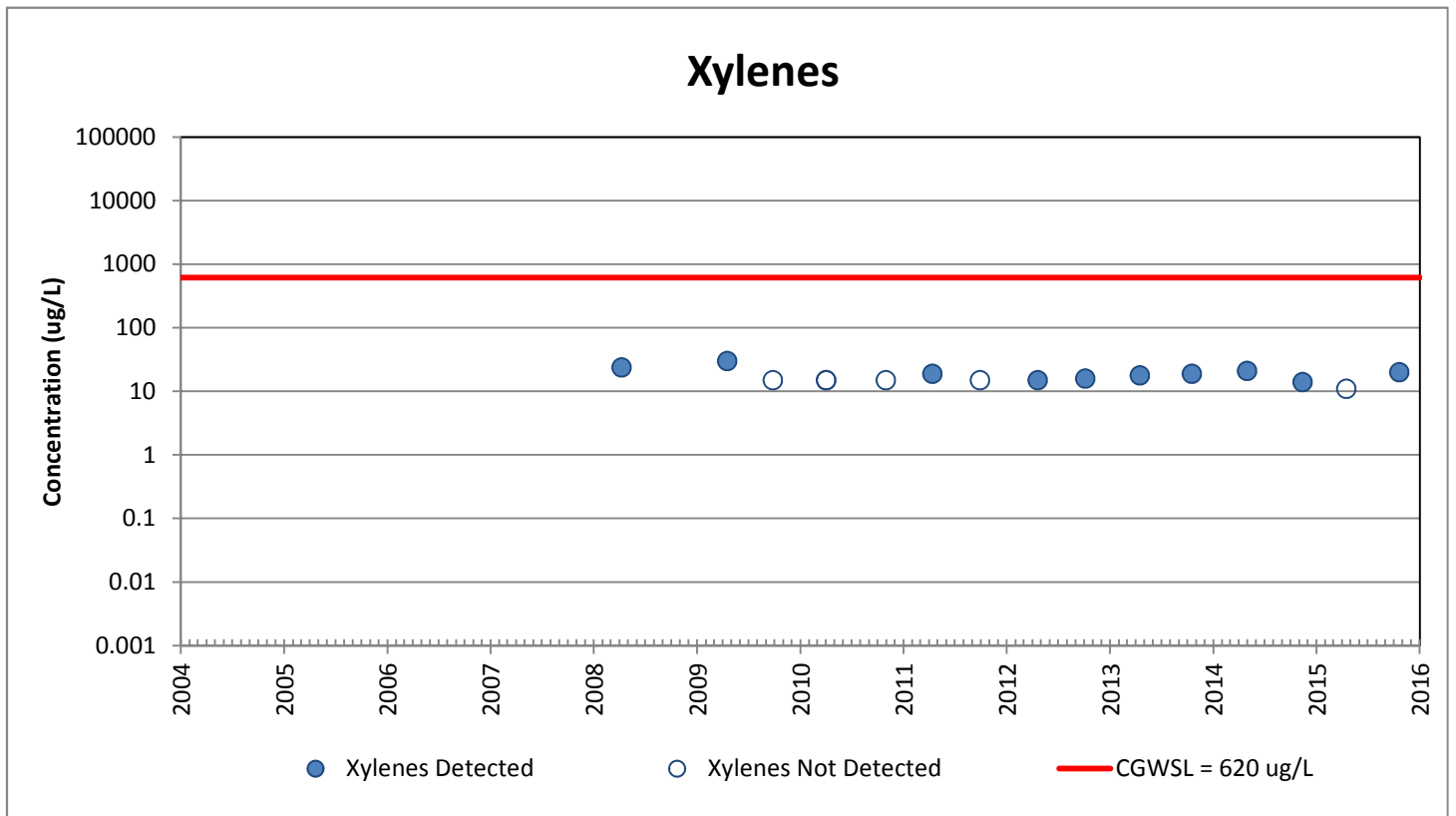
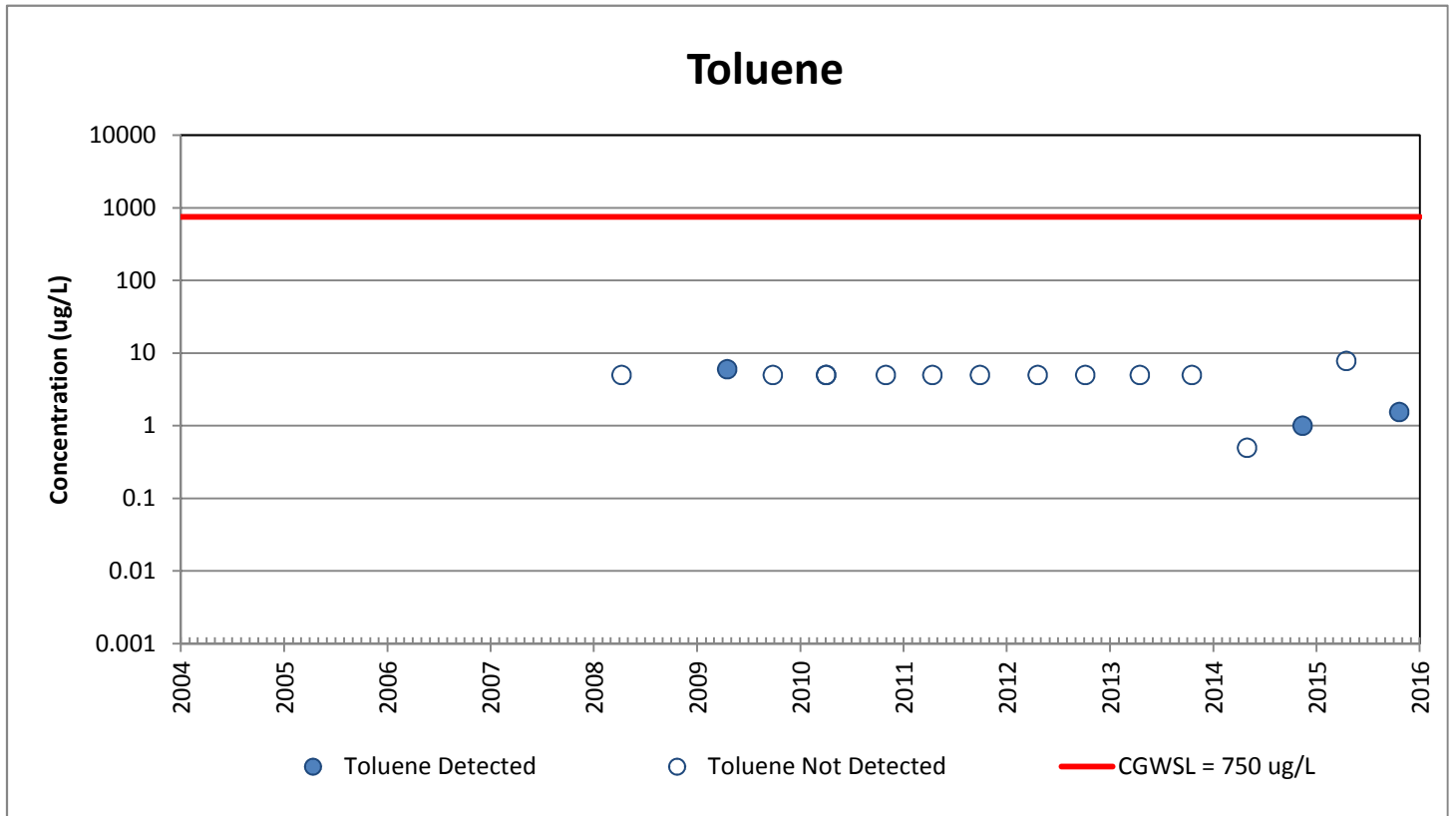
## Benzene



## Ethylbenzene

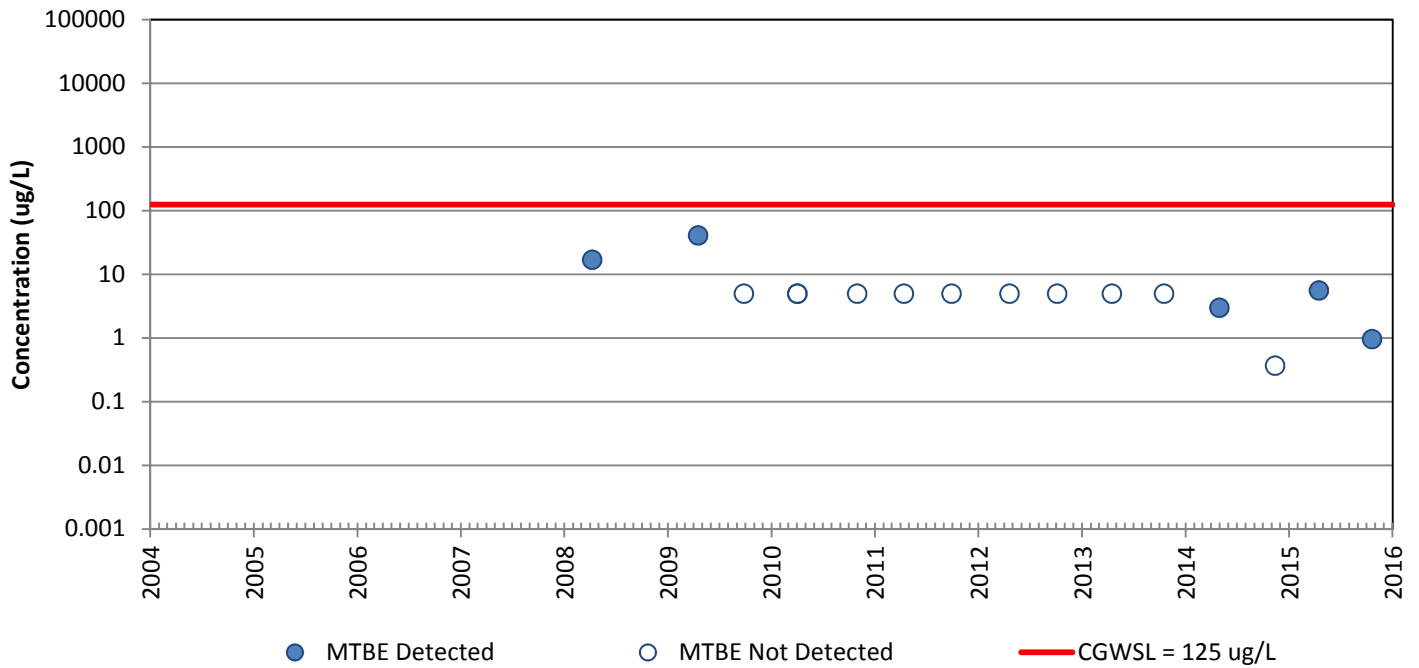


# TEL-3

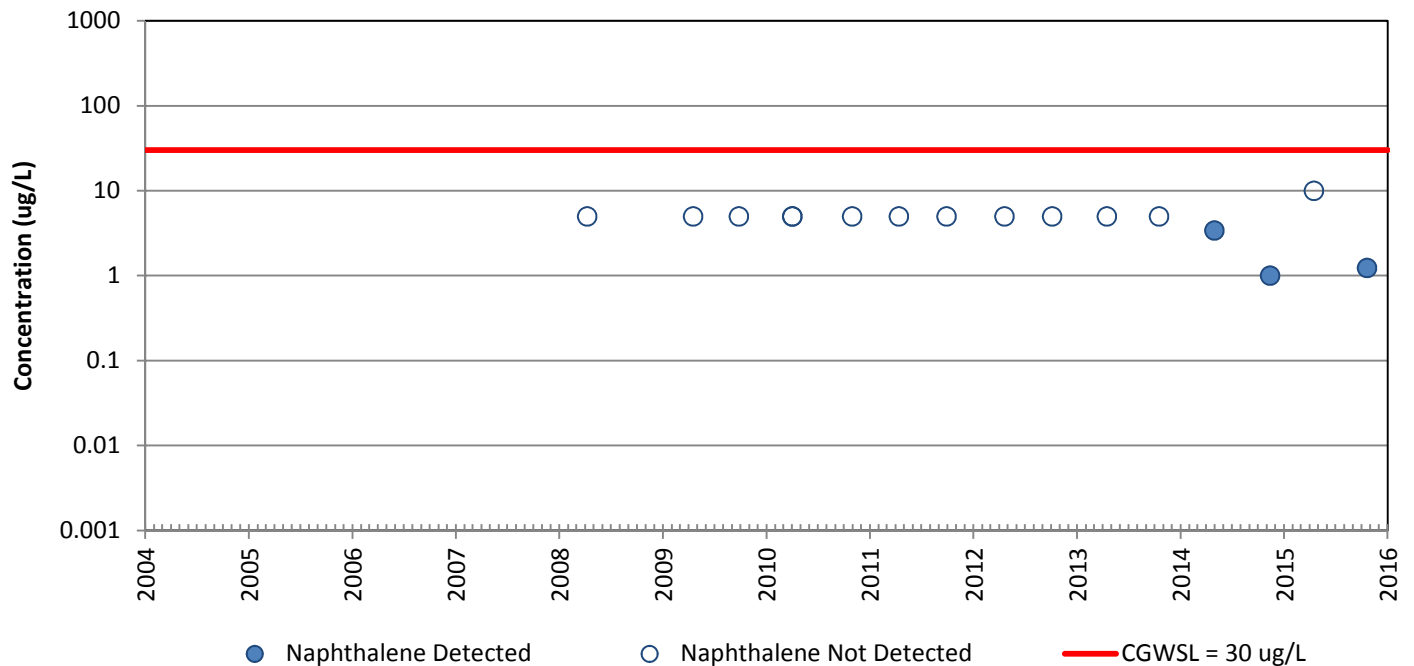


# TEL-3

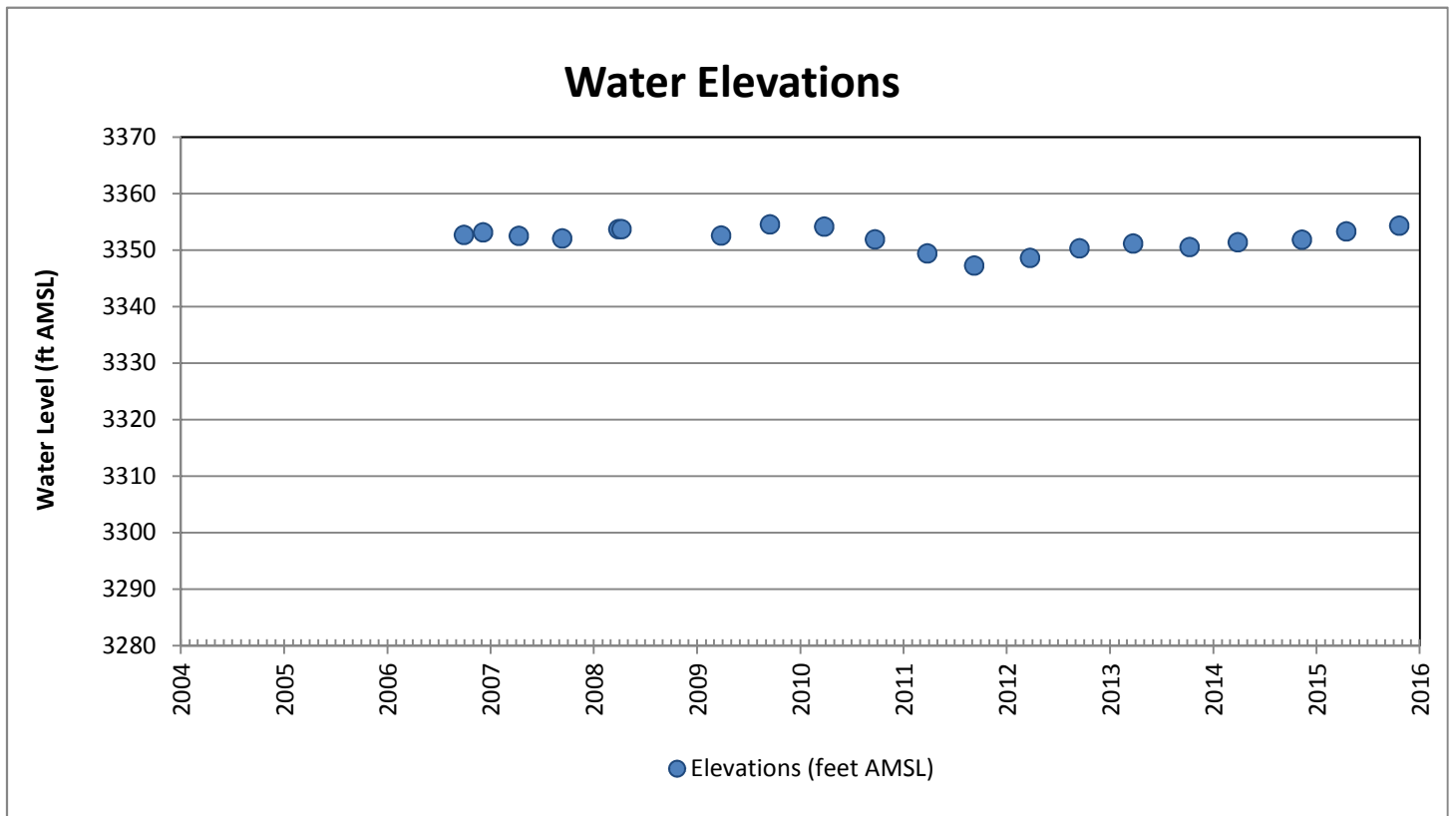
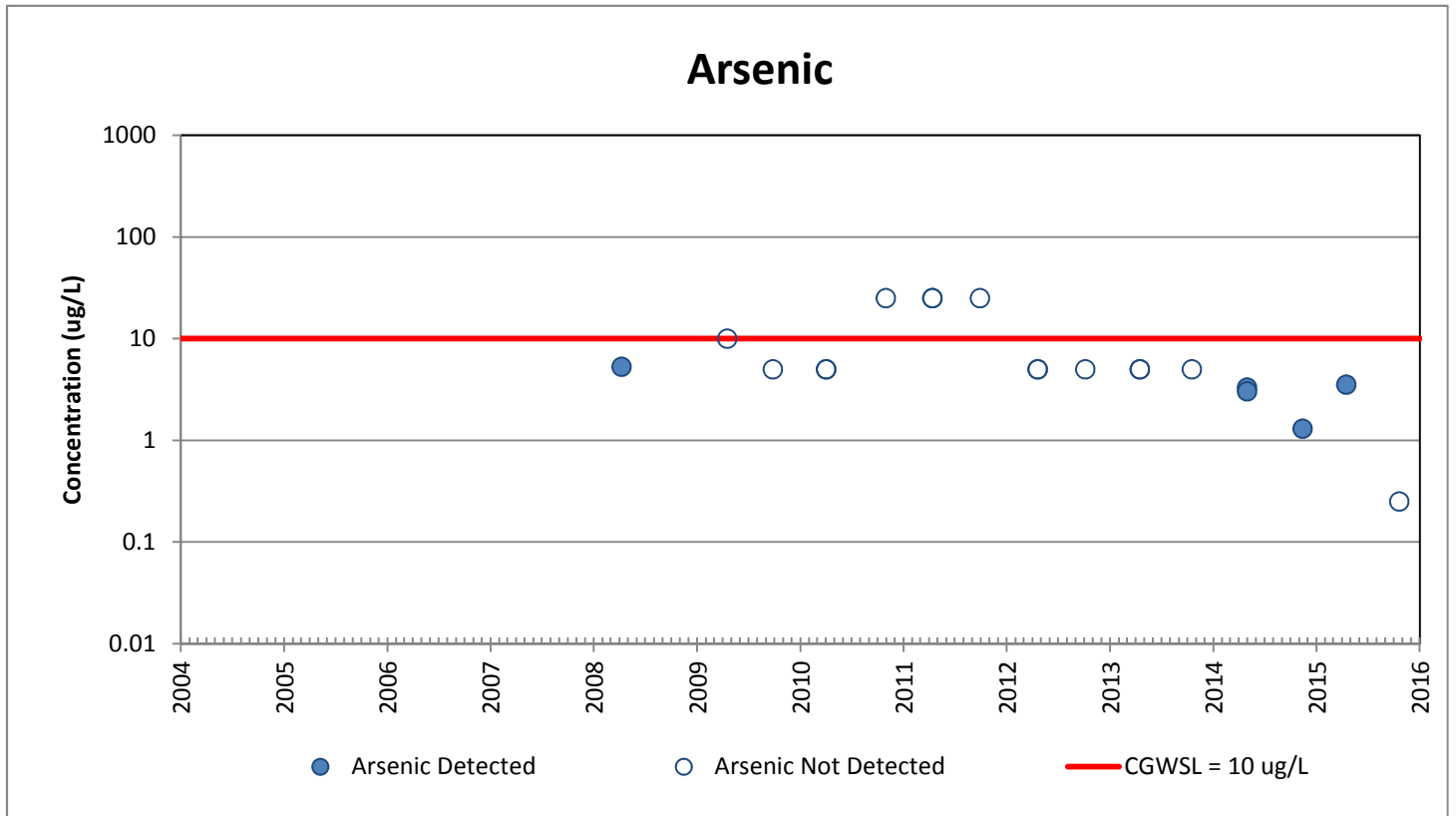
## MTBE



## Naphthalene

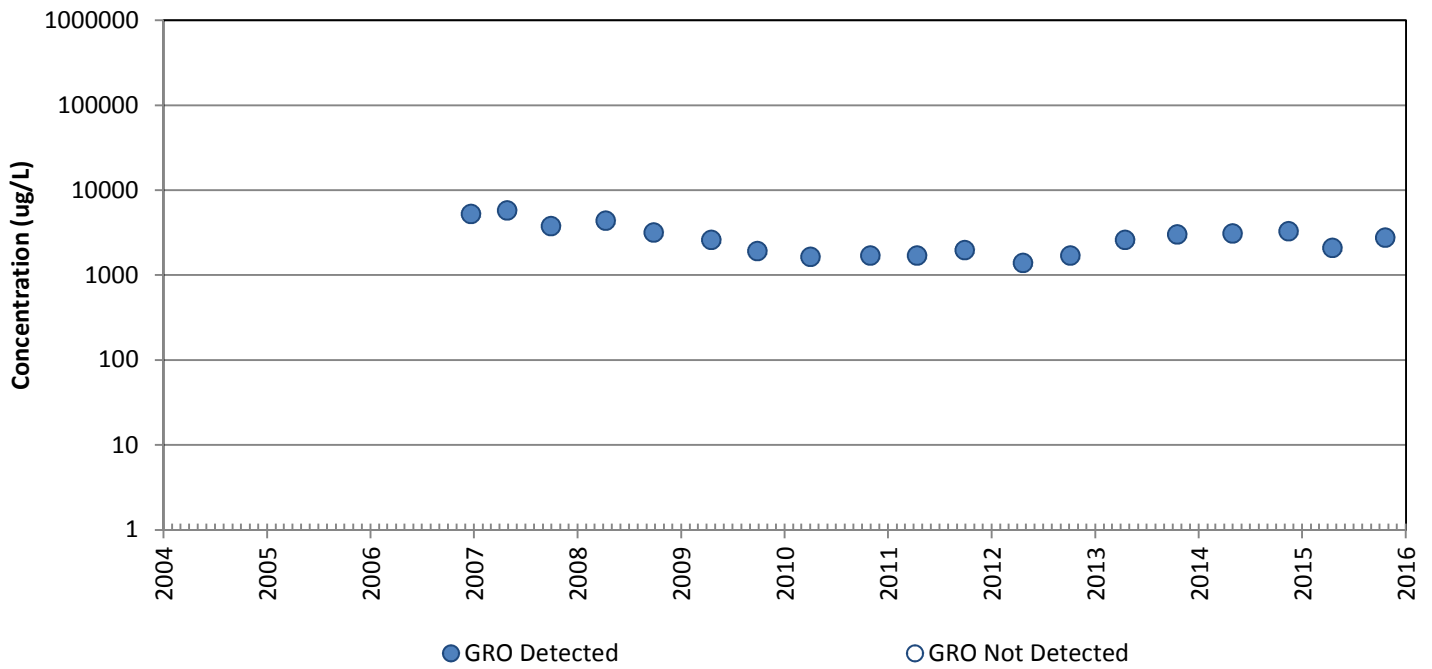


# TEL-3

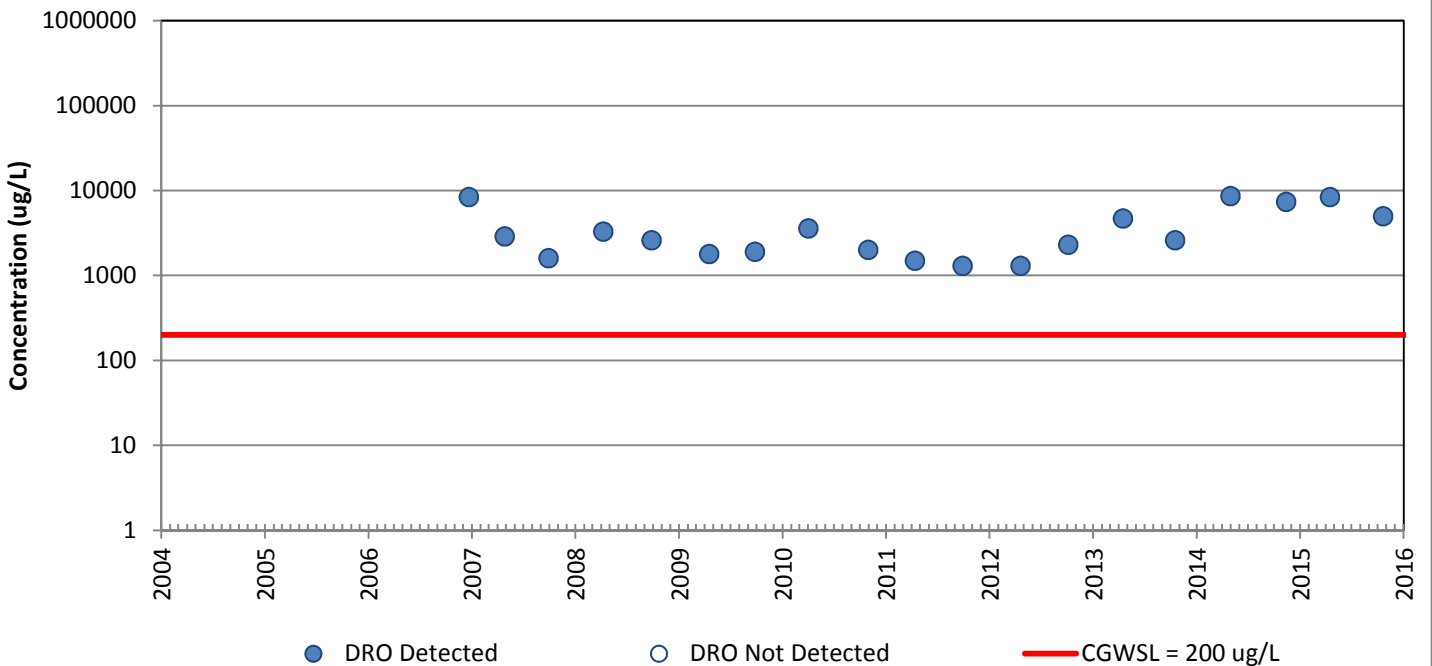


# TEL-4

## GRO

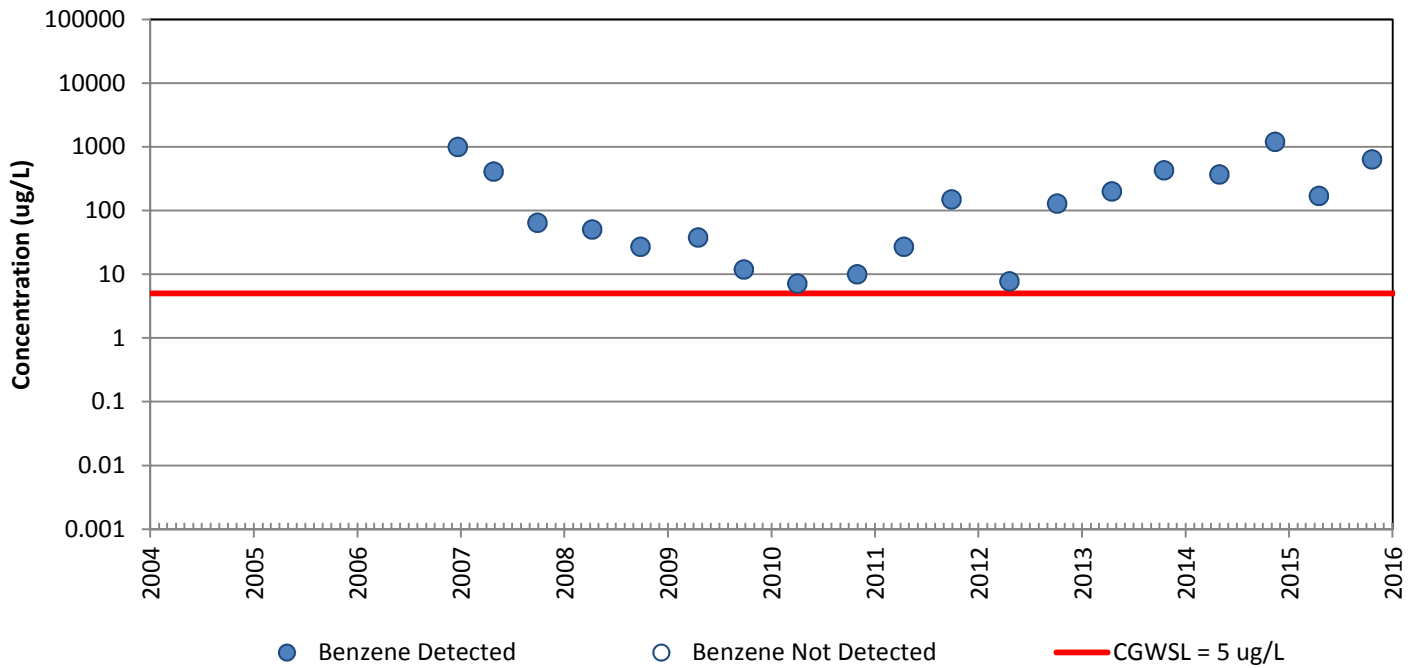


## DRO

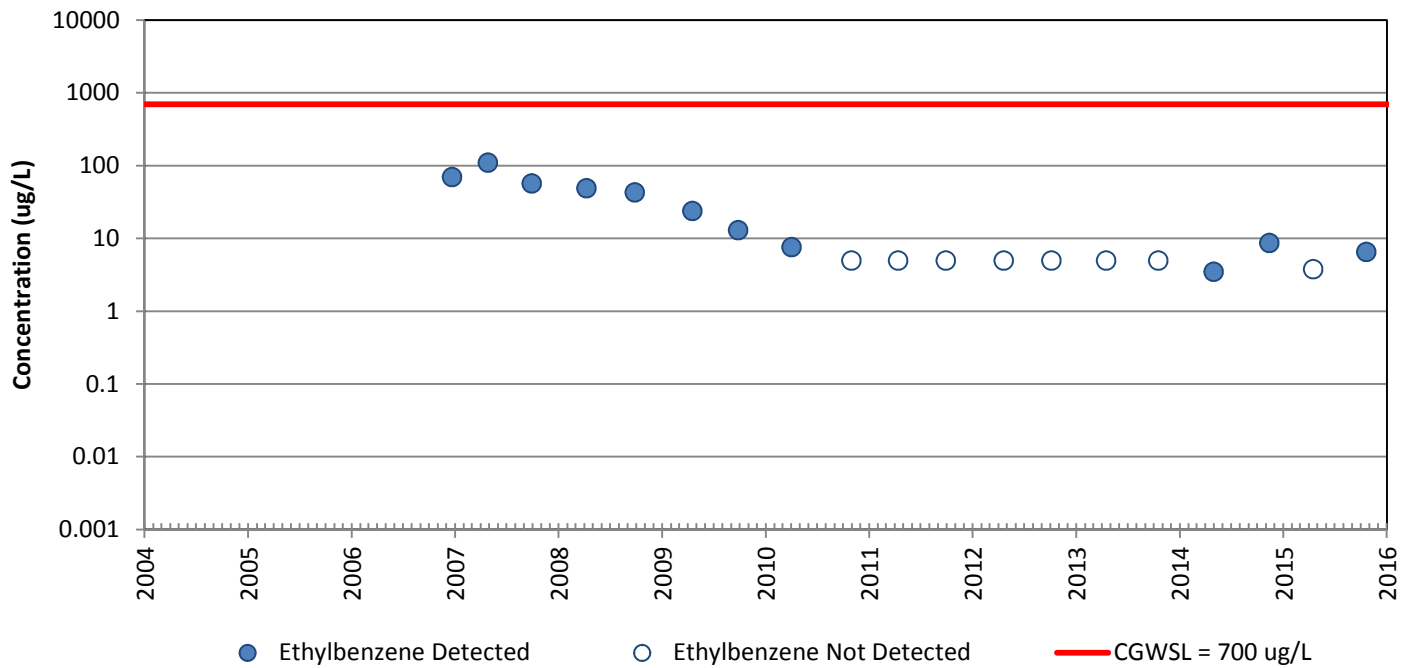


# TEL-4

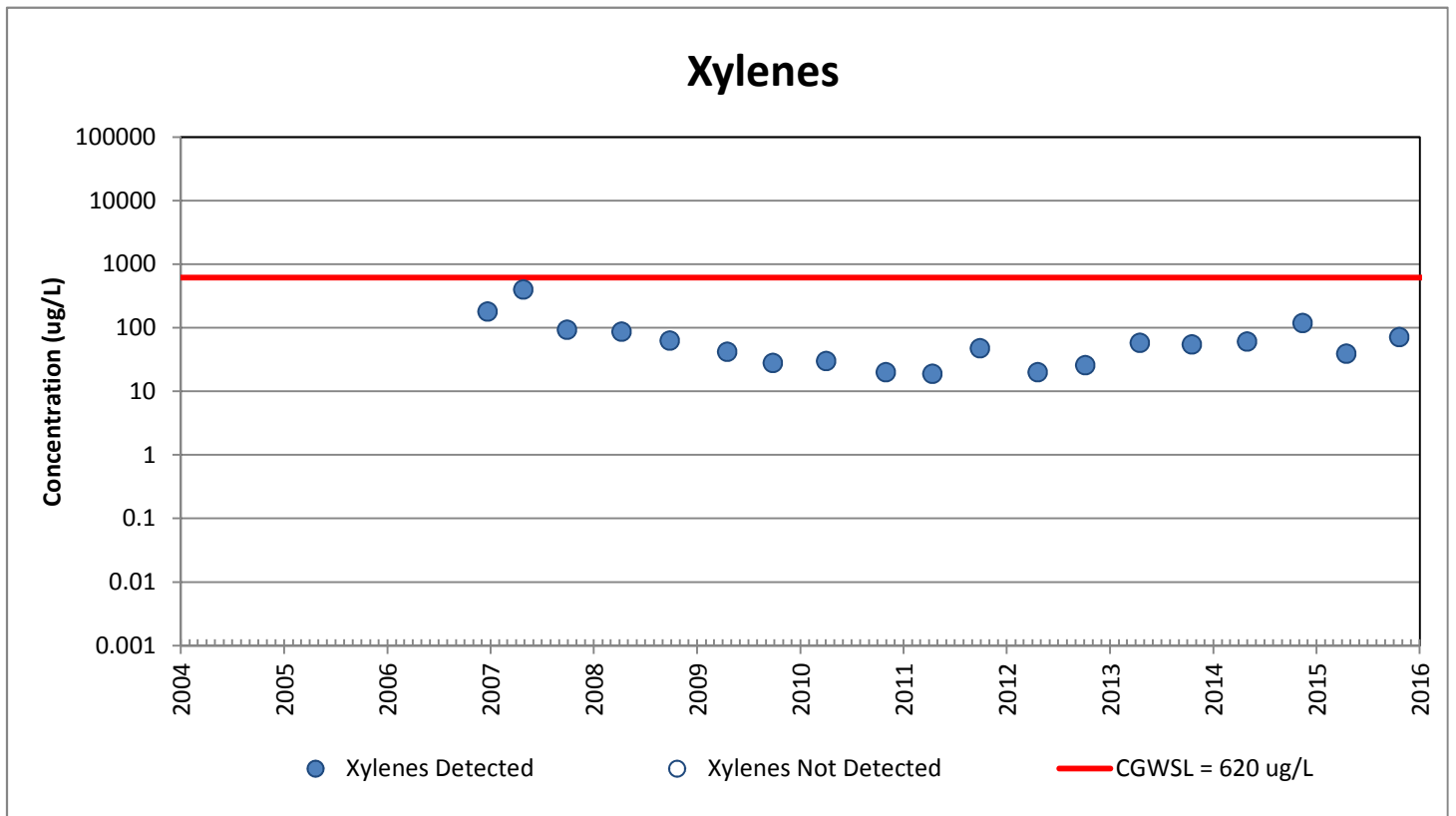
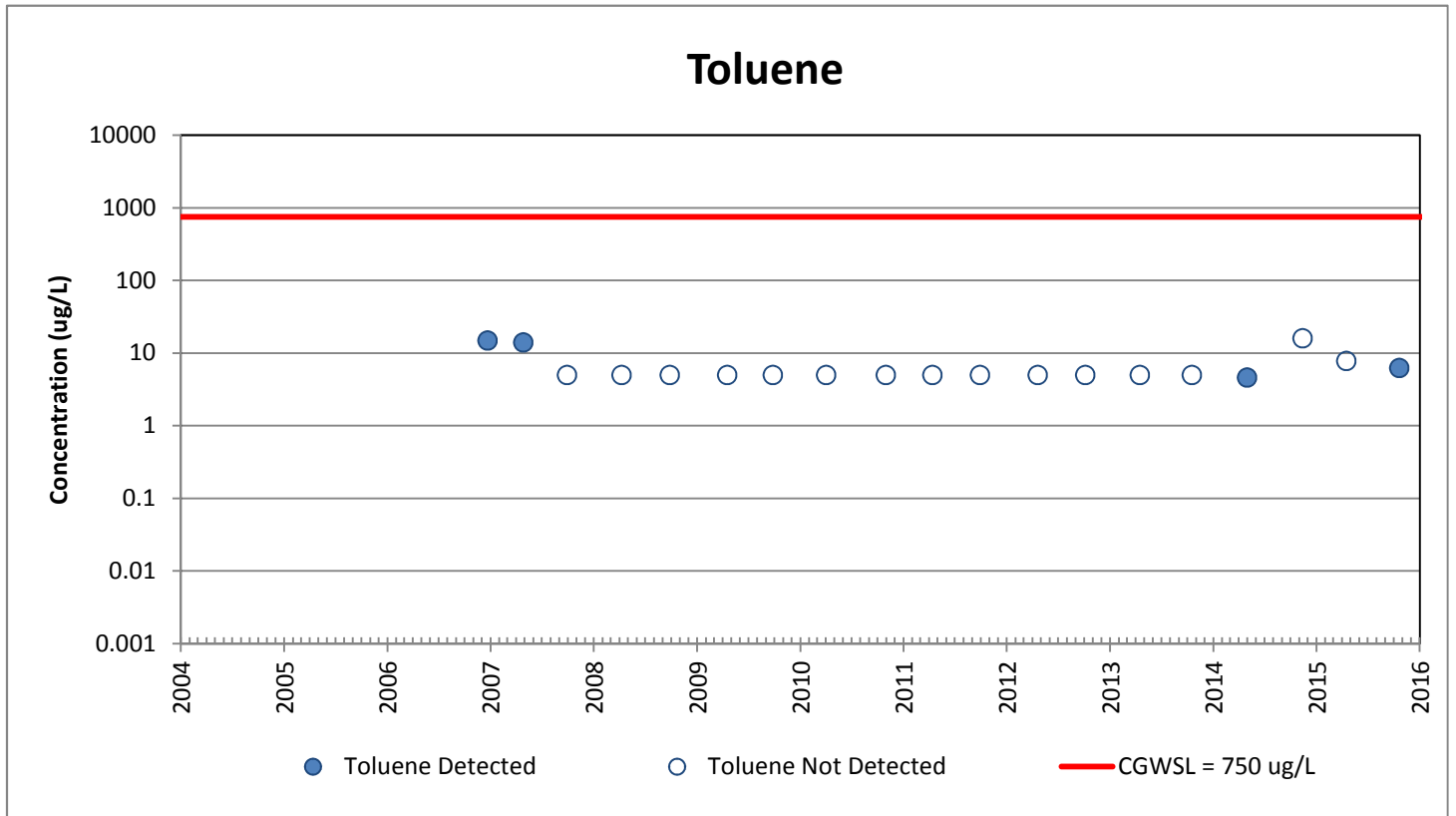
## Benzene



## Ethylbenzene

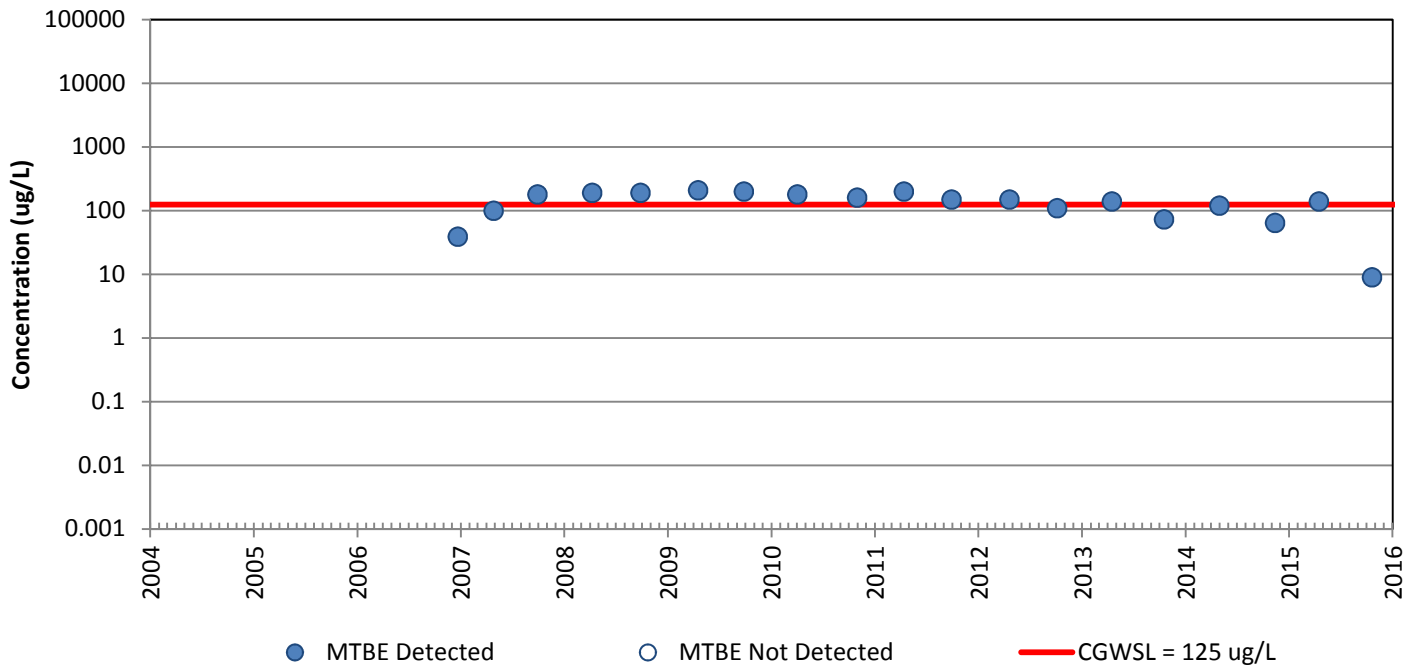


# TEL-4

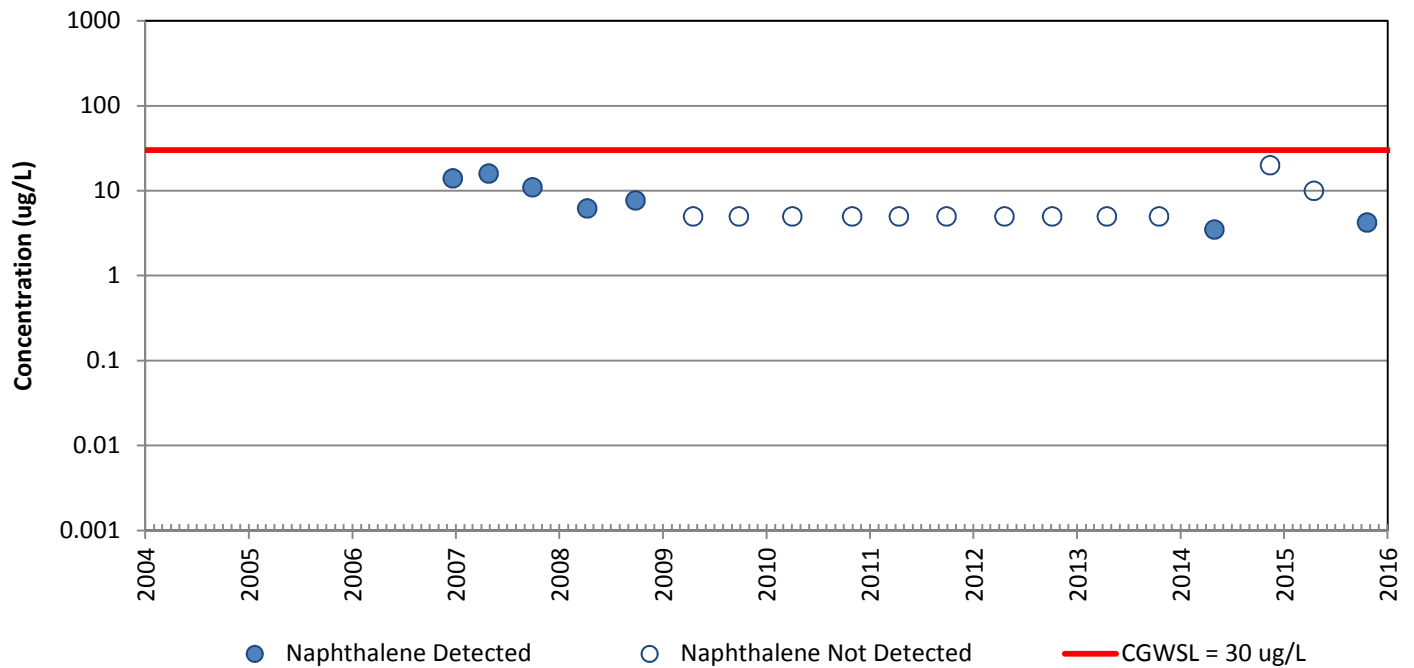


# TEL-4

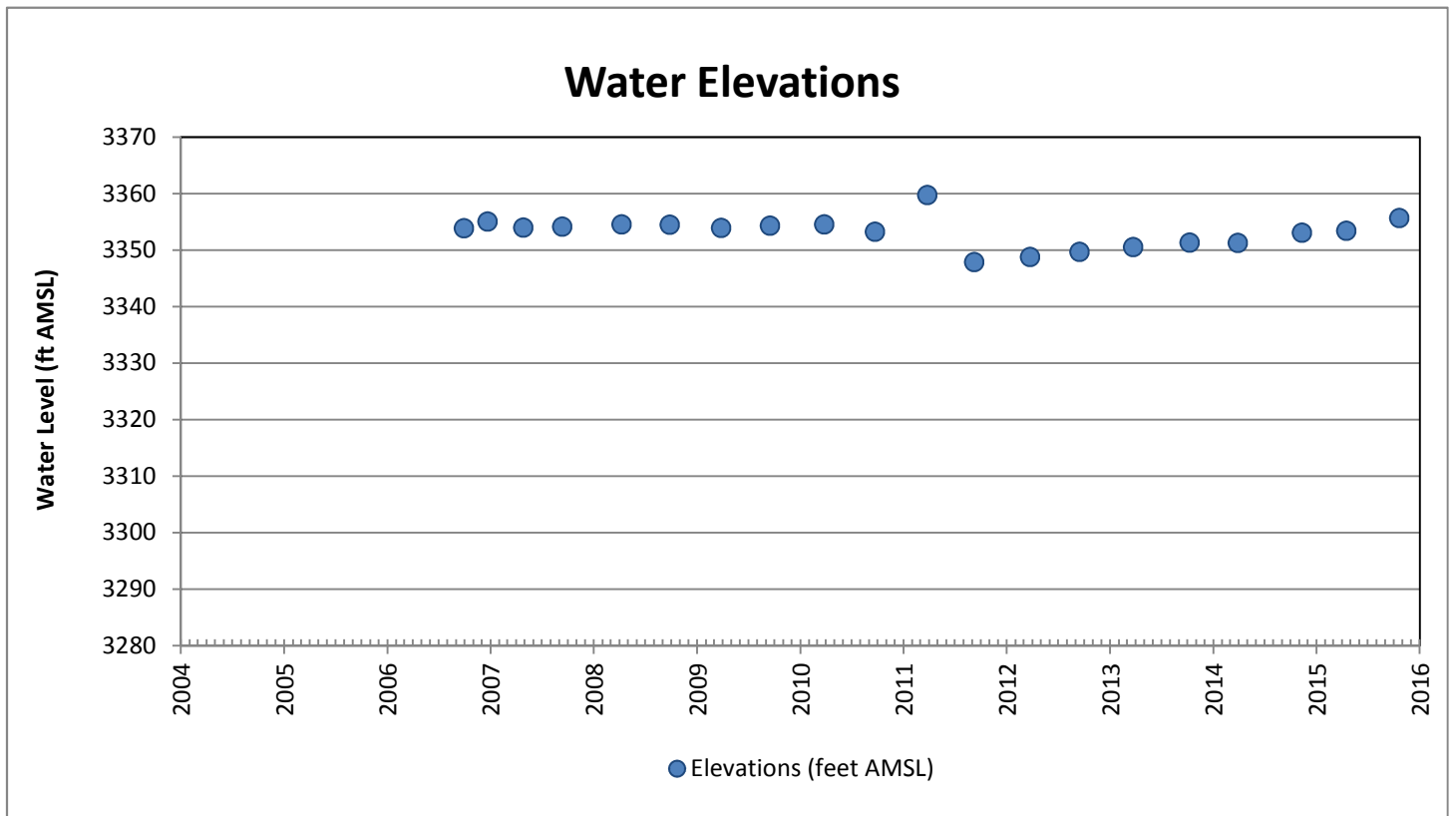
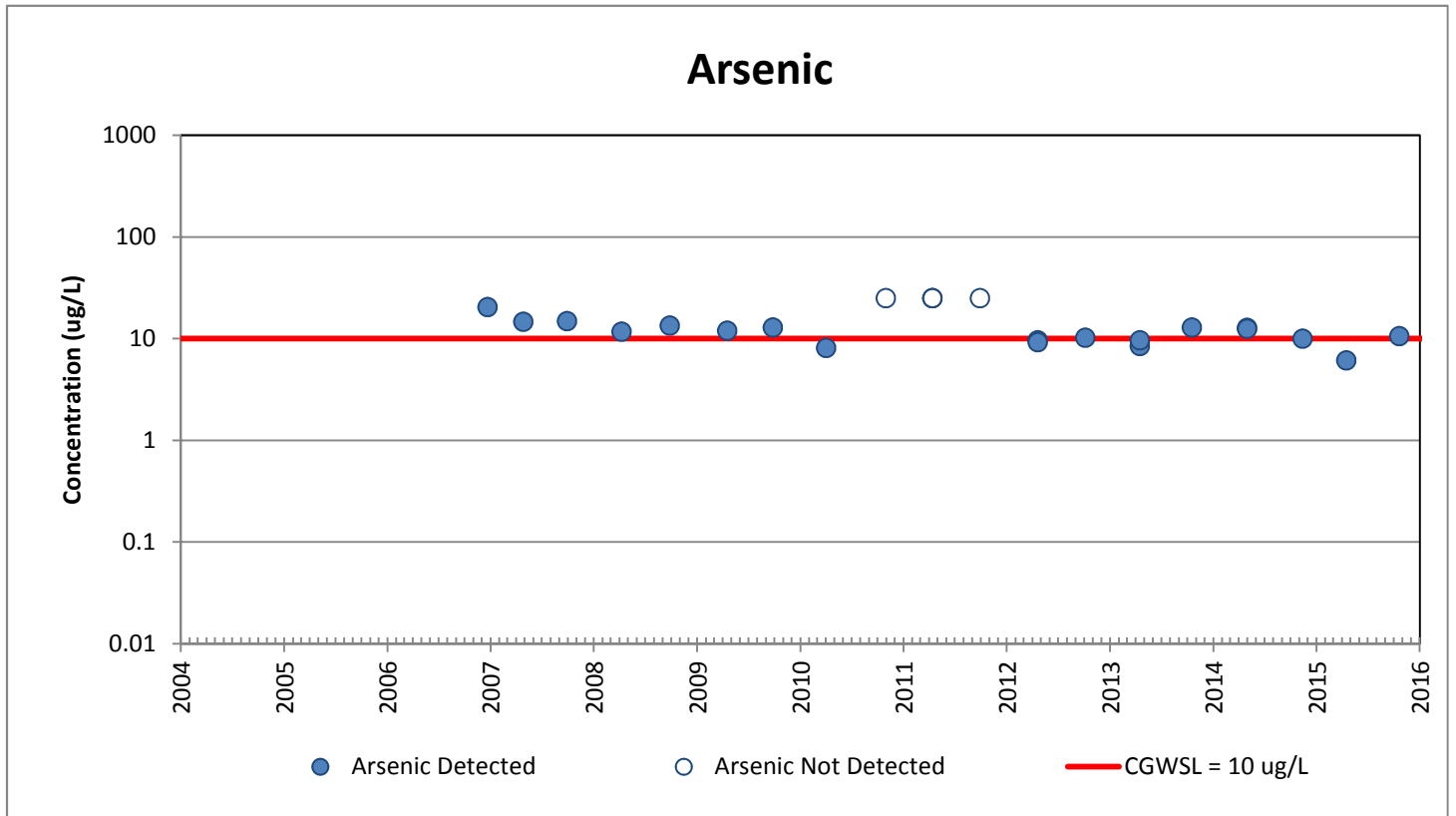
## MTBE



## Naphthalene

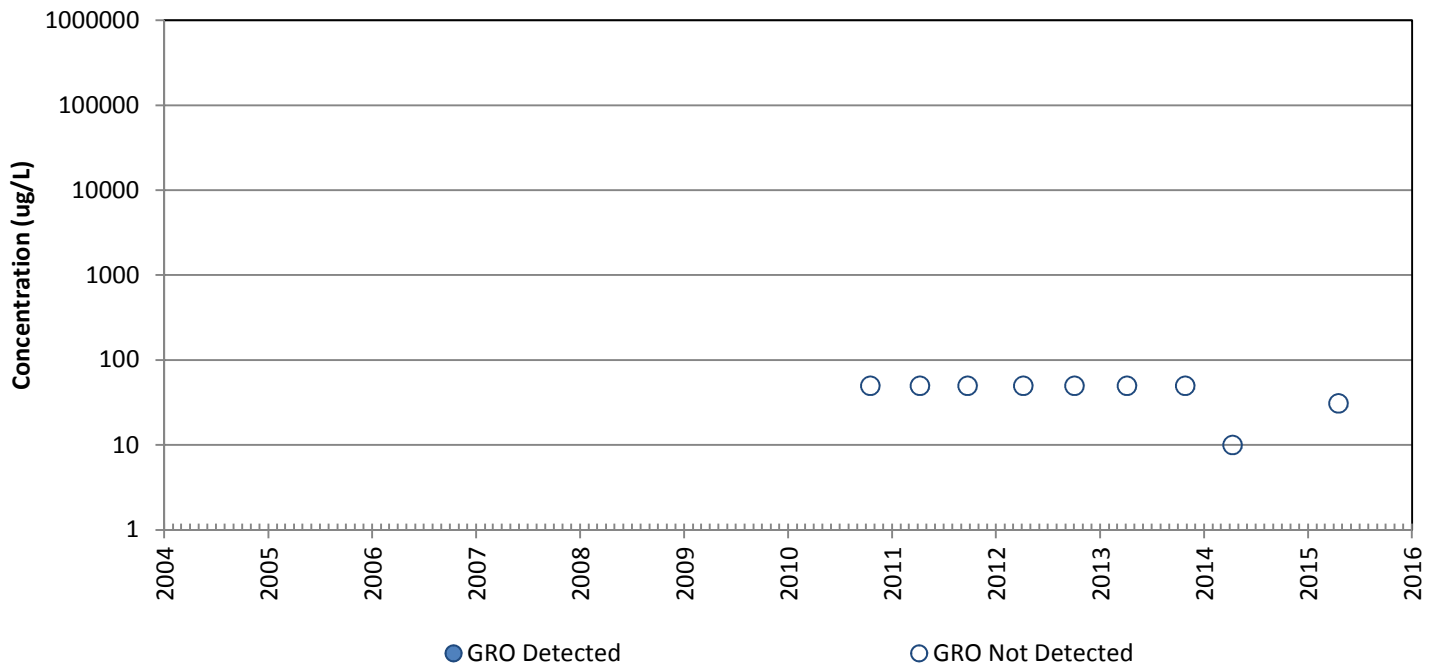


# TEL-4

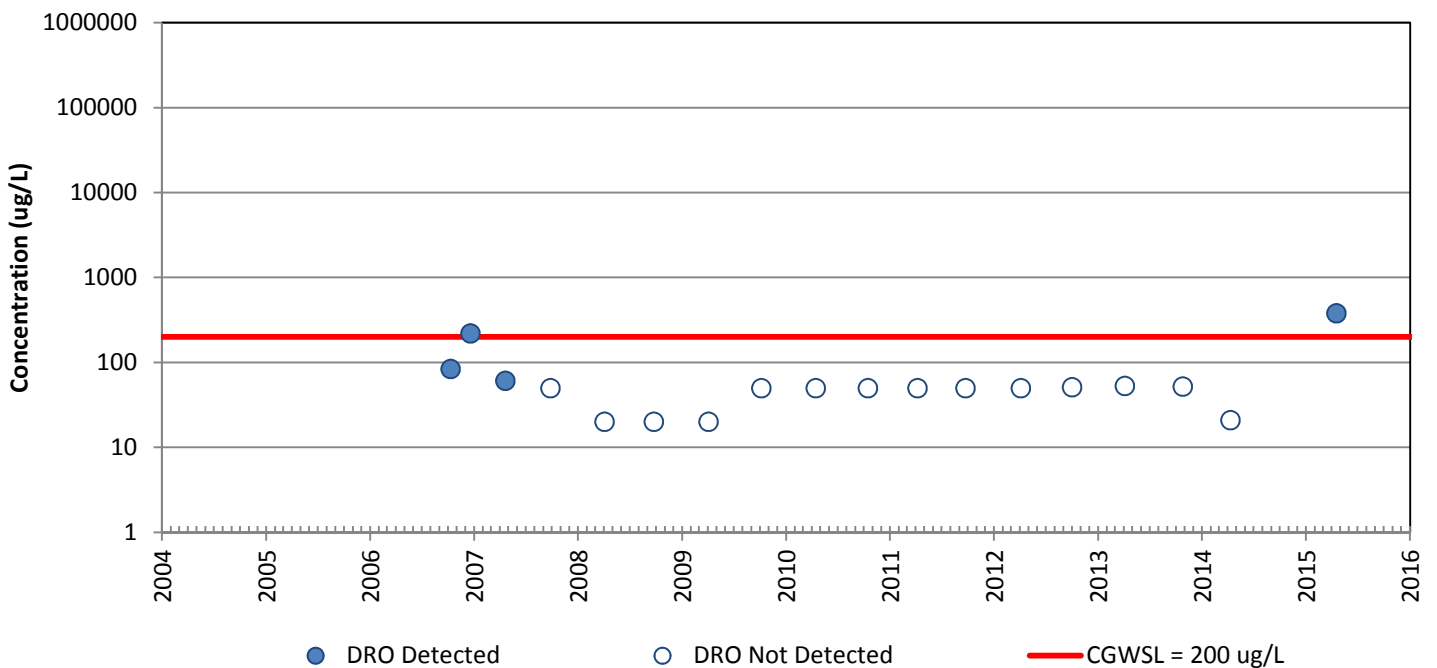


# MW-8

## GRO

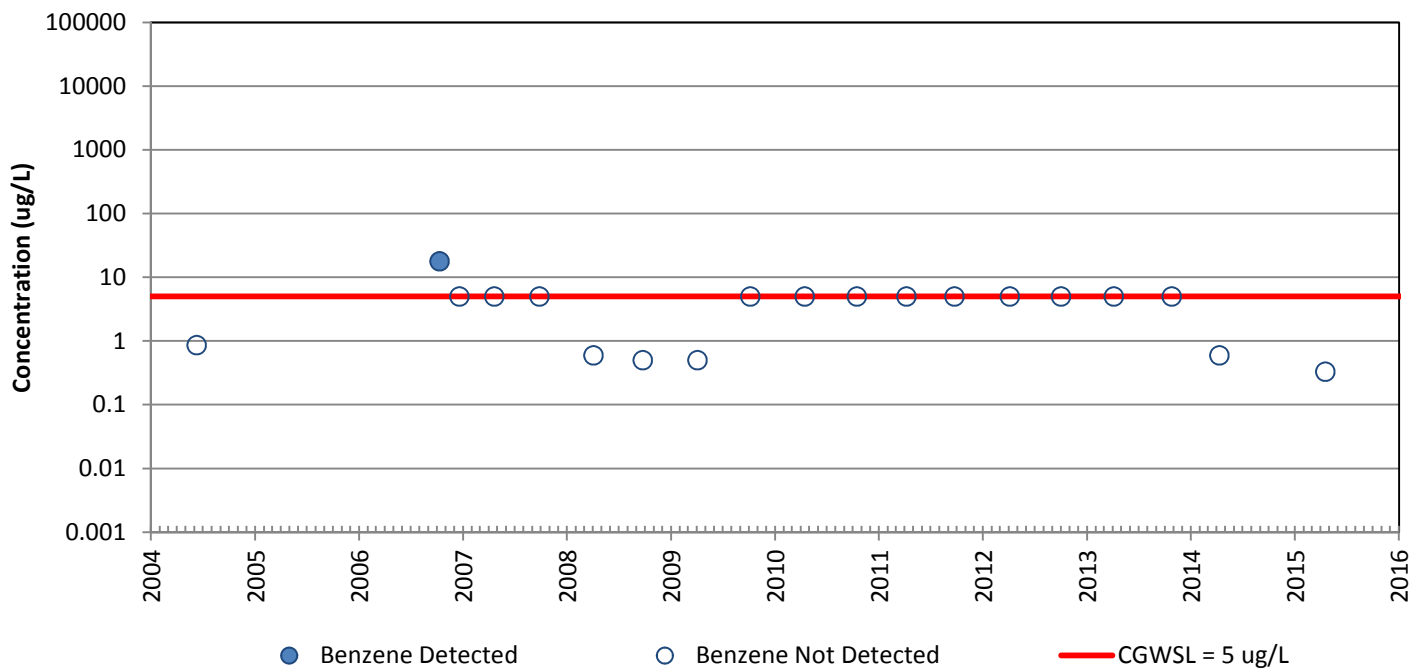


## DRO

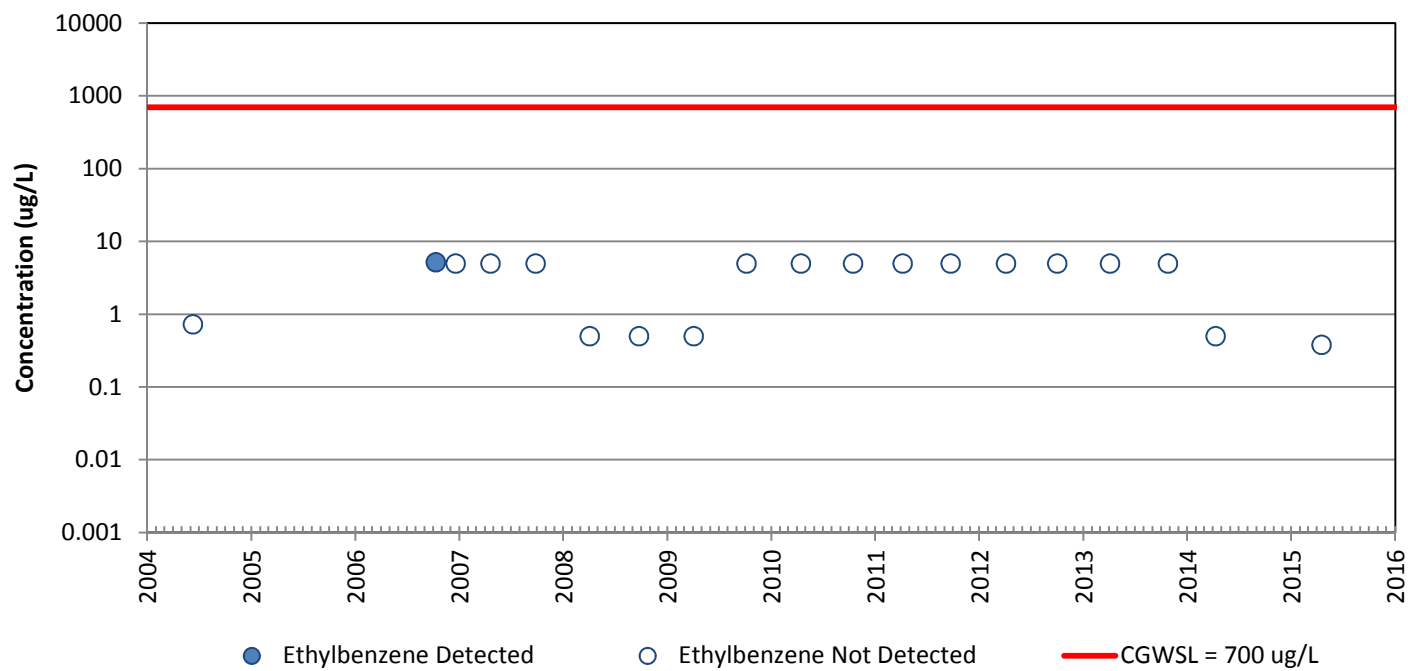


# MW-8

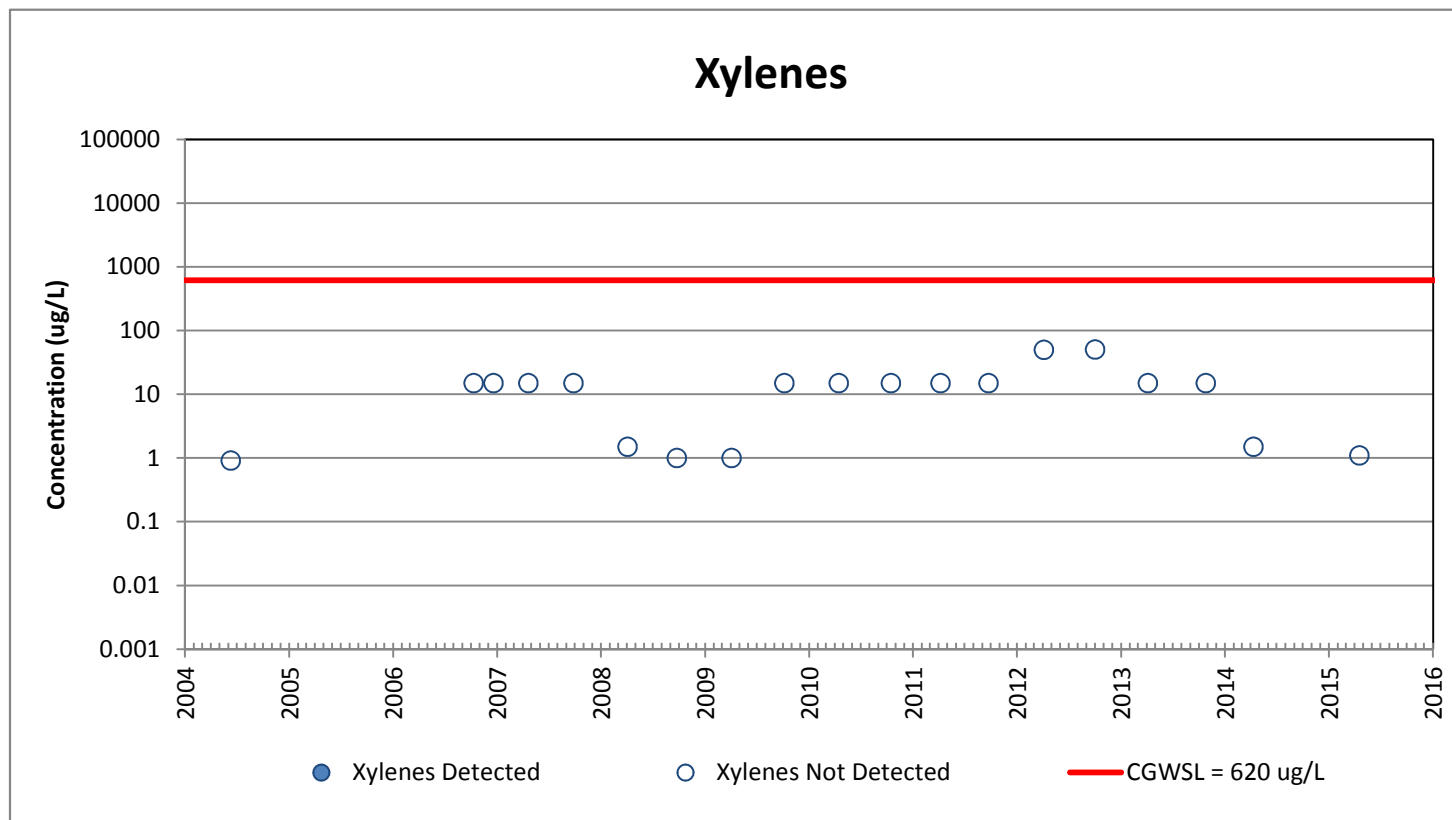
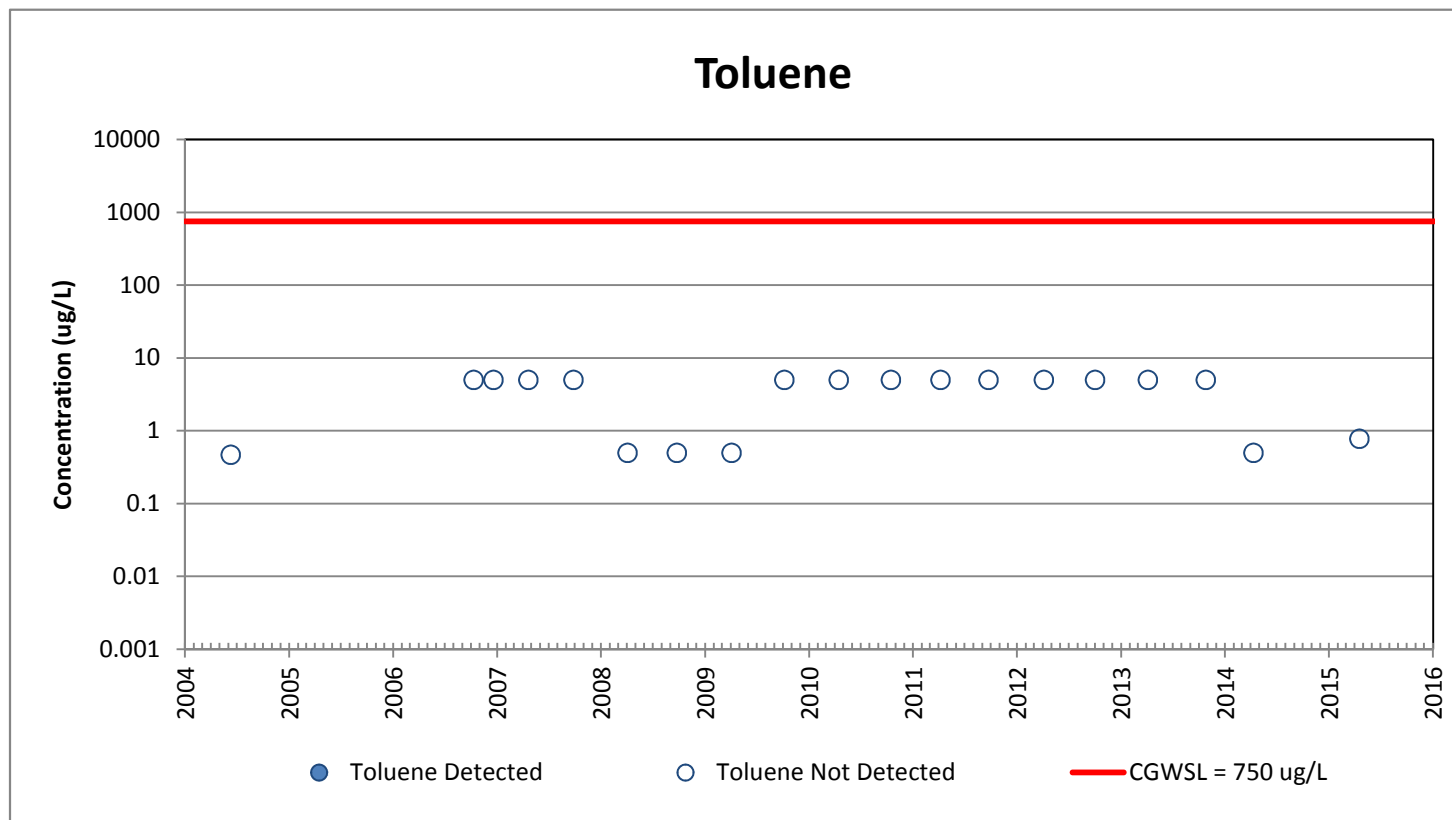
## Benzene



## Ethylbenzene

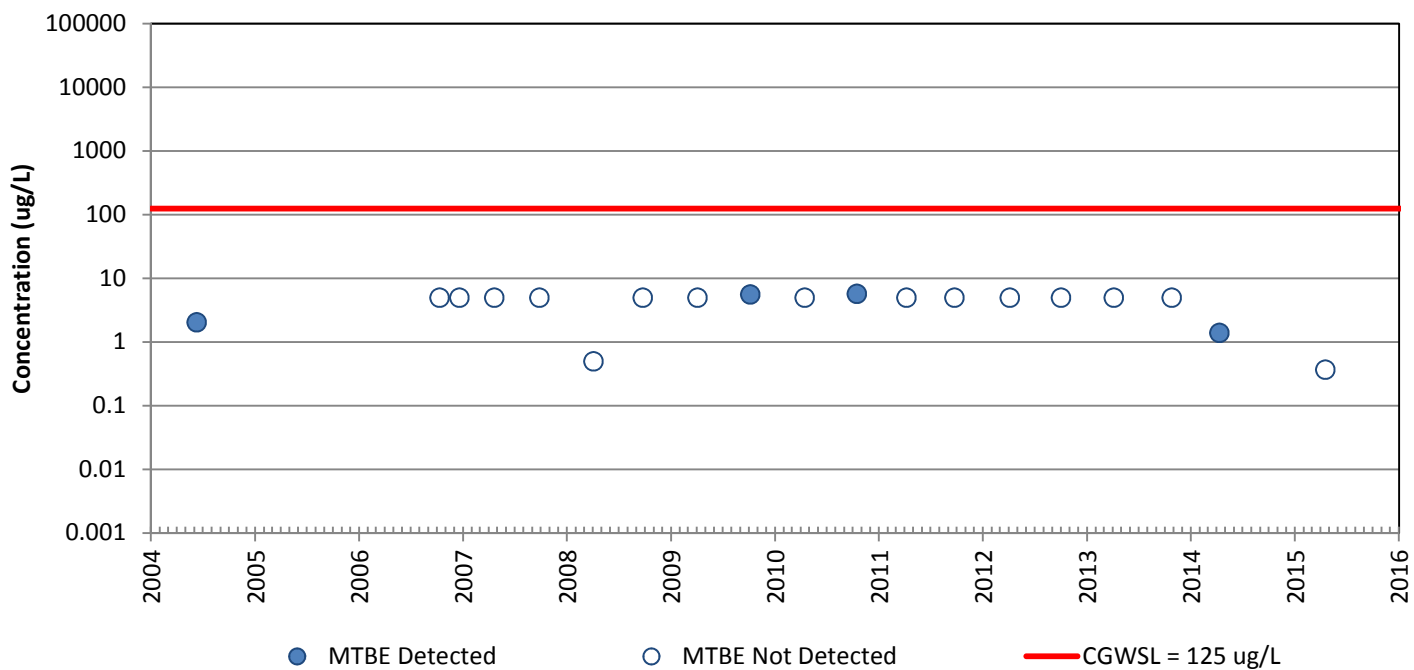


# MW-8

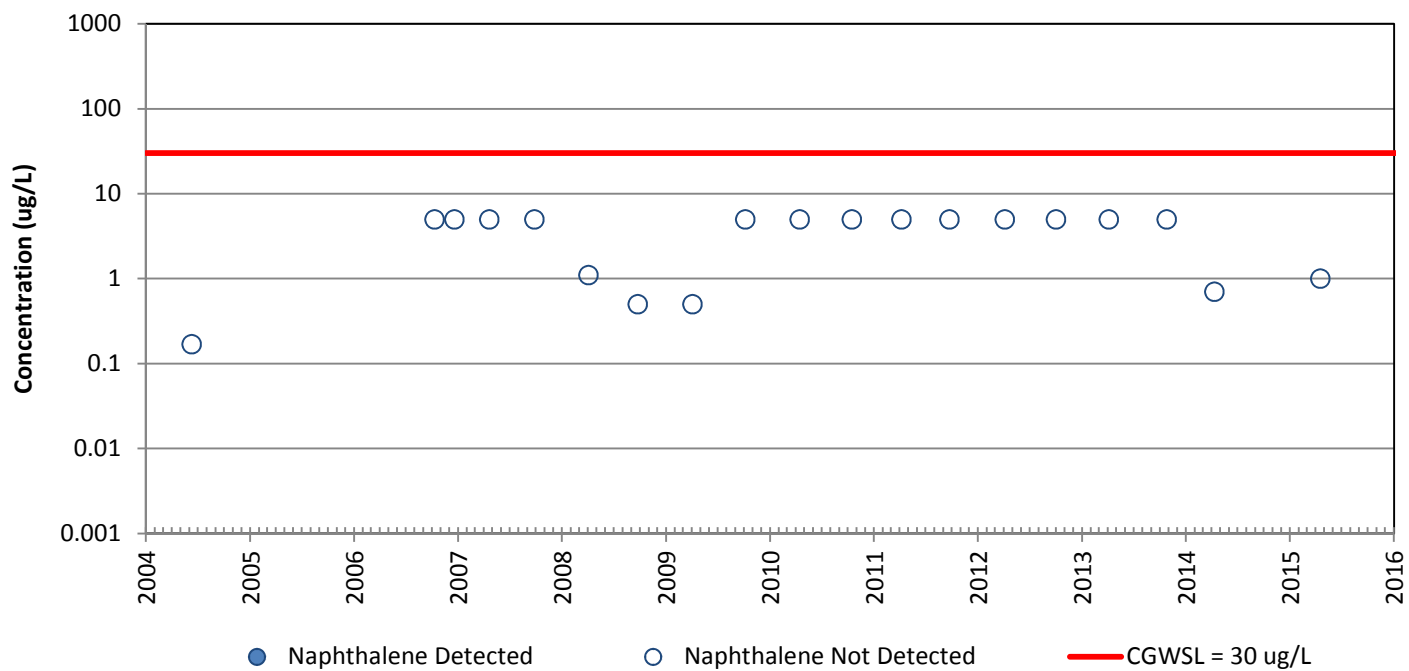


# MW-8

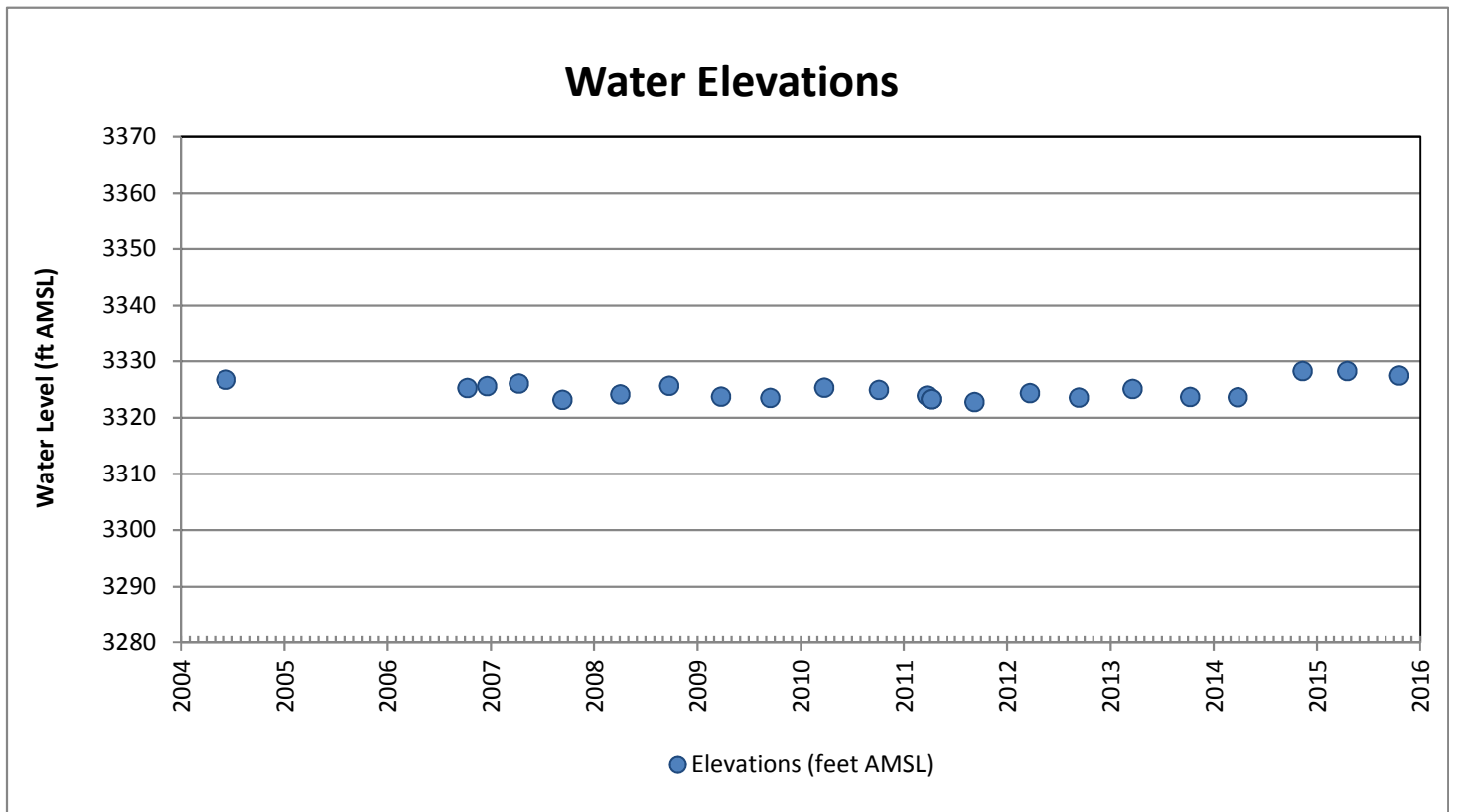
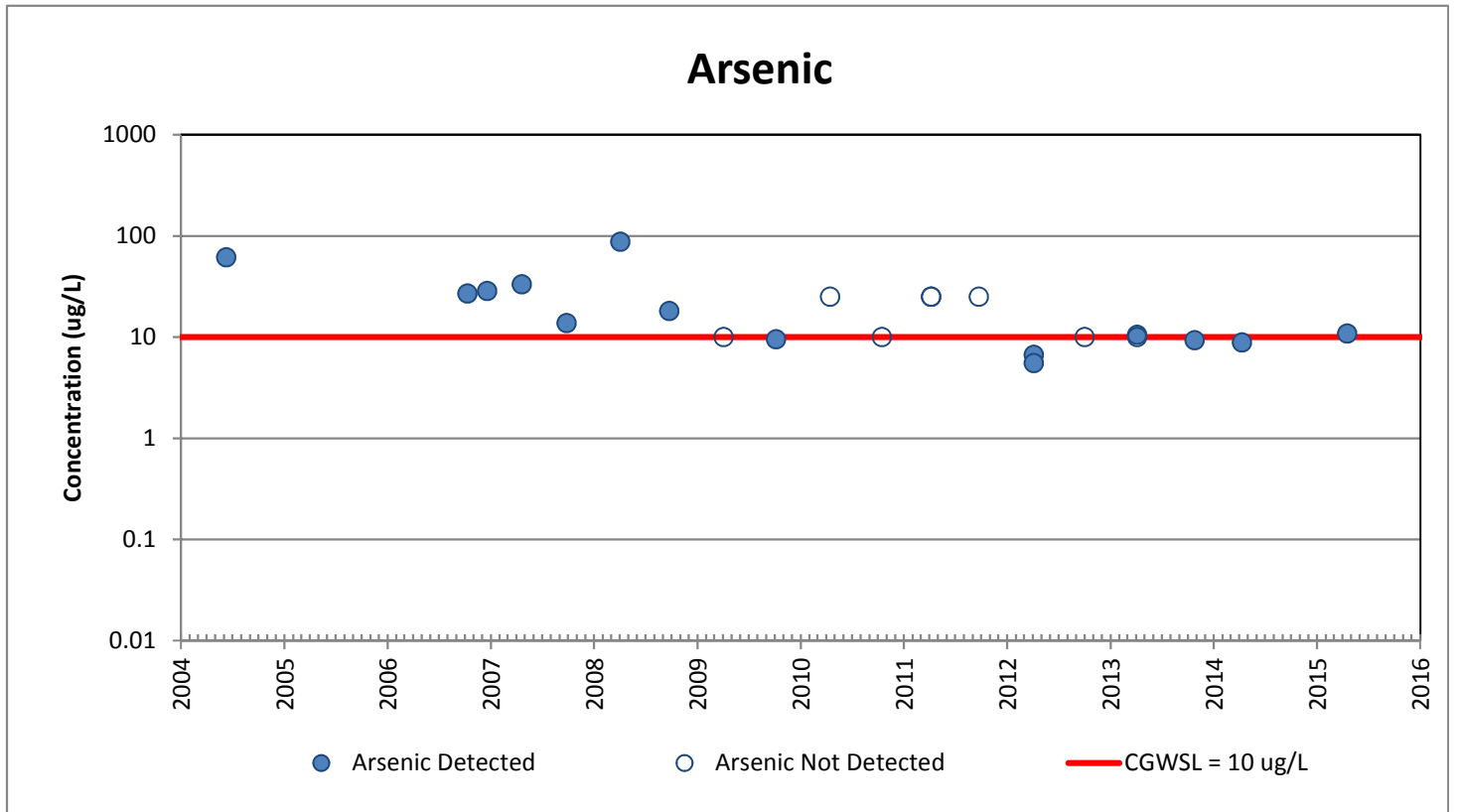
## MTBE



## Naphthalene

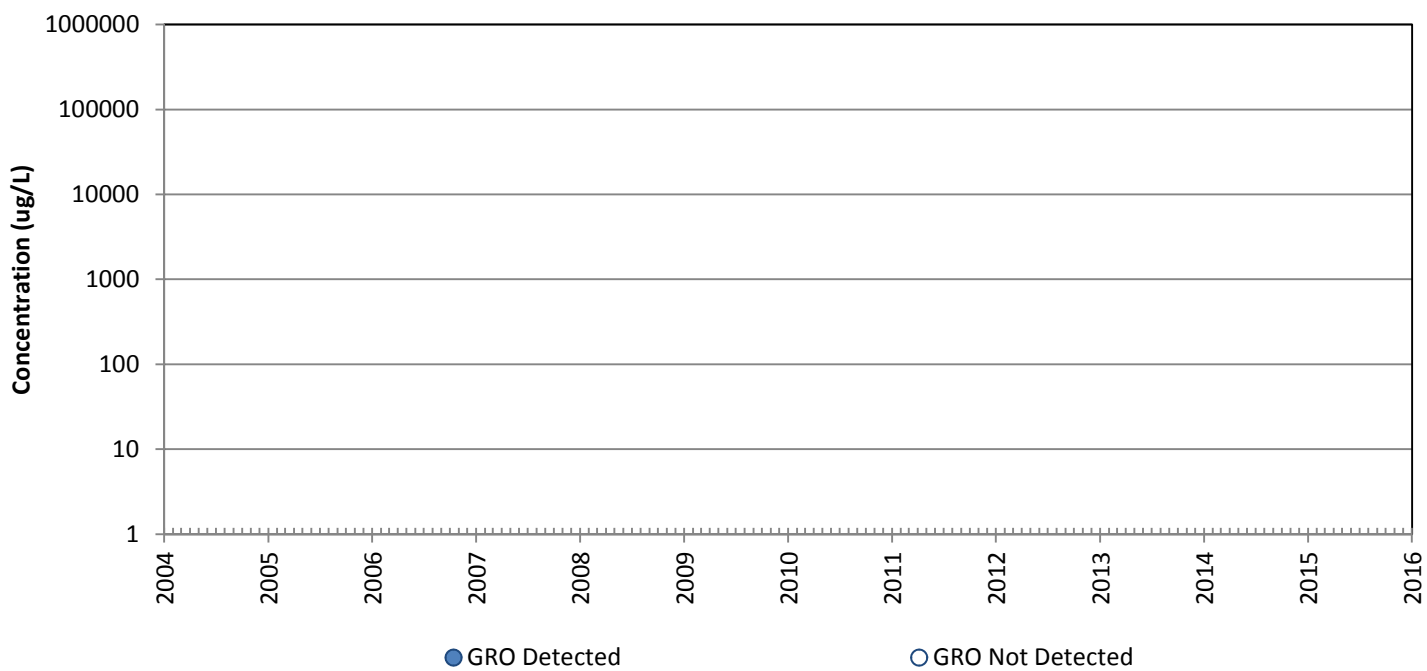


# MW-8

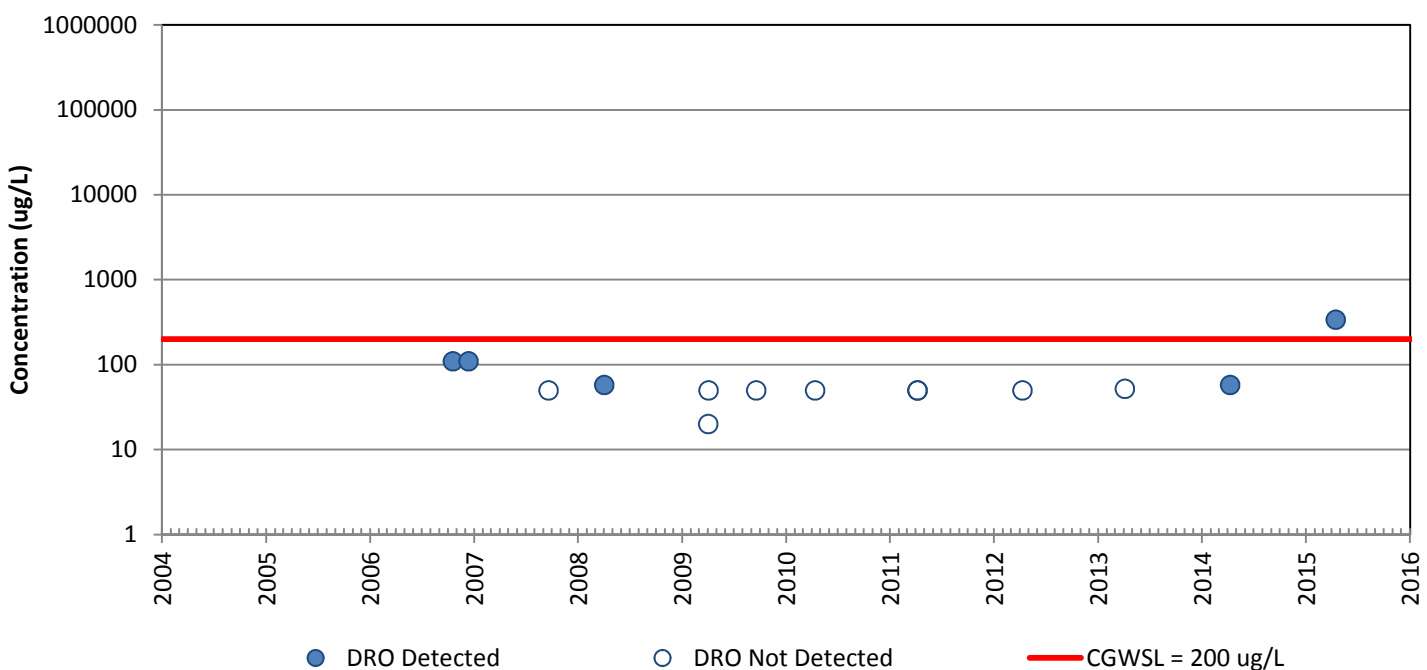


# MW-16

## GRO

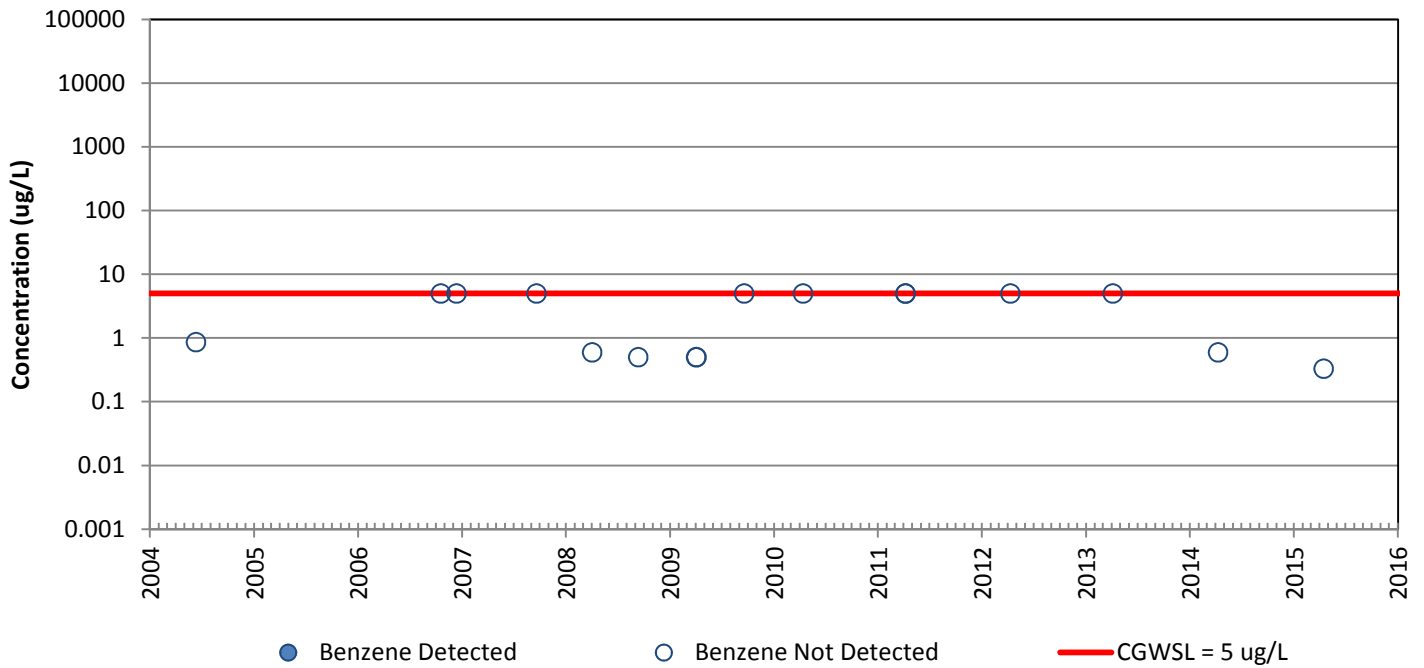


## DRO

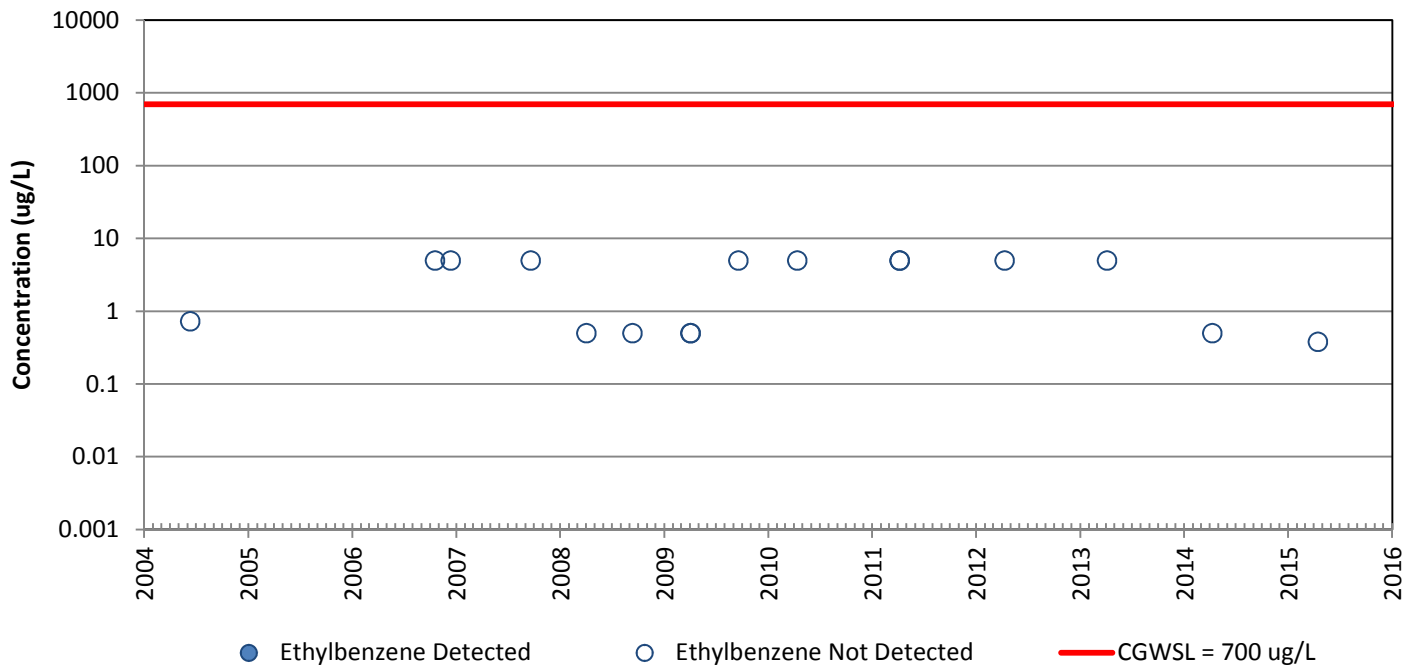


# MW-16

## Benzene

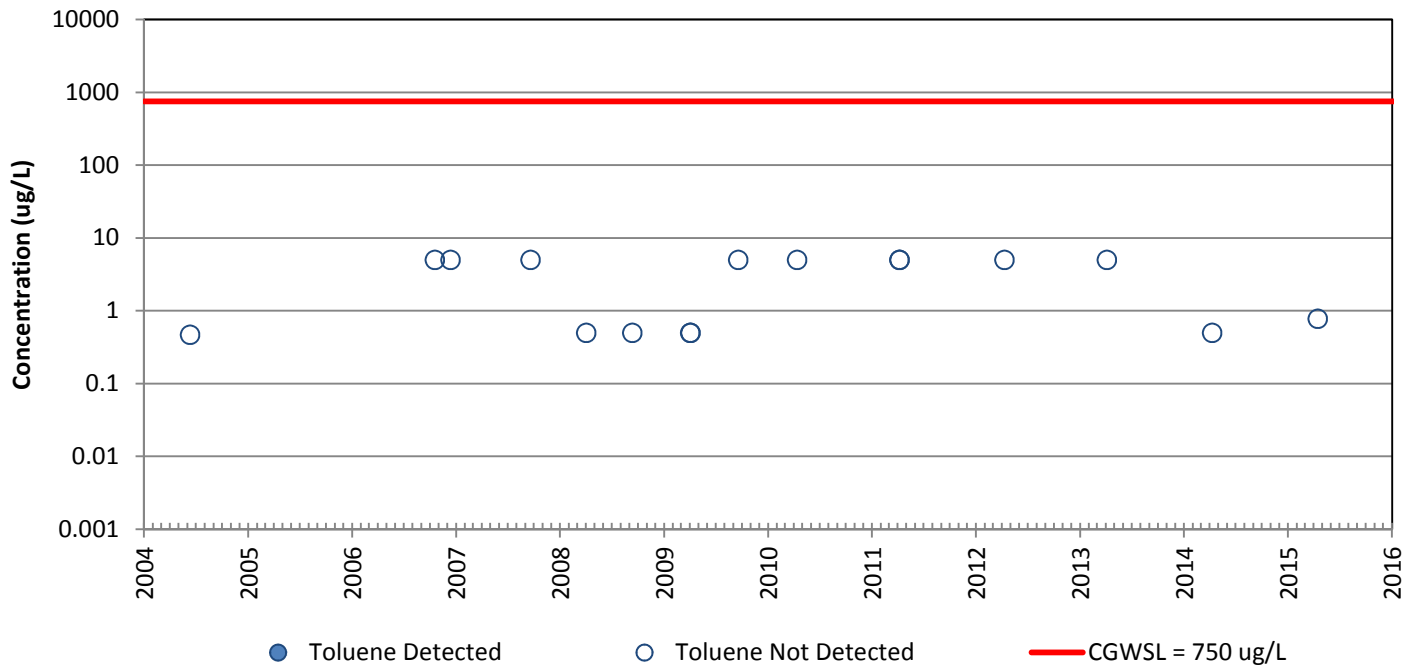


## Ethylbenzene

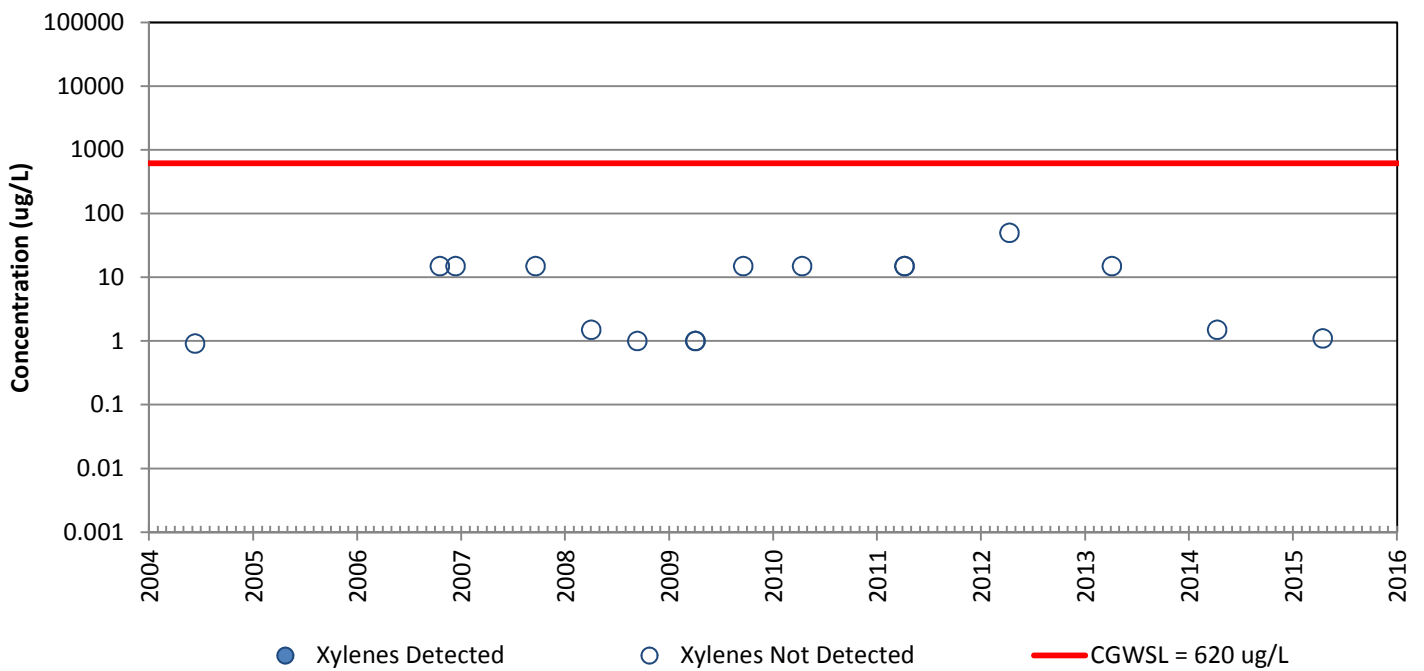


# MW-16

## Toluene

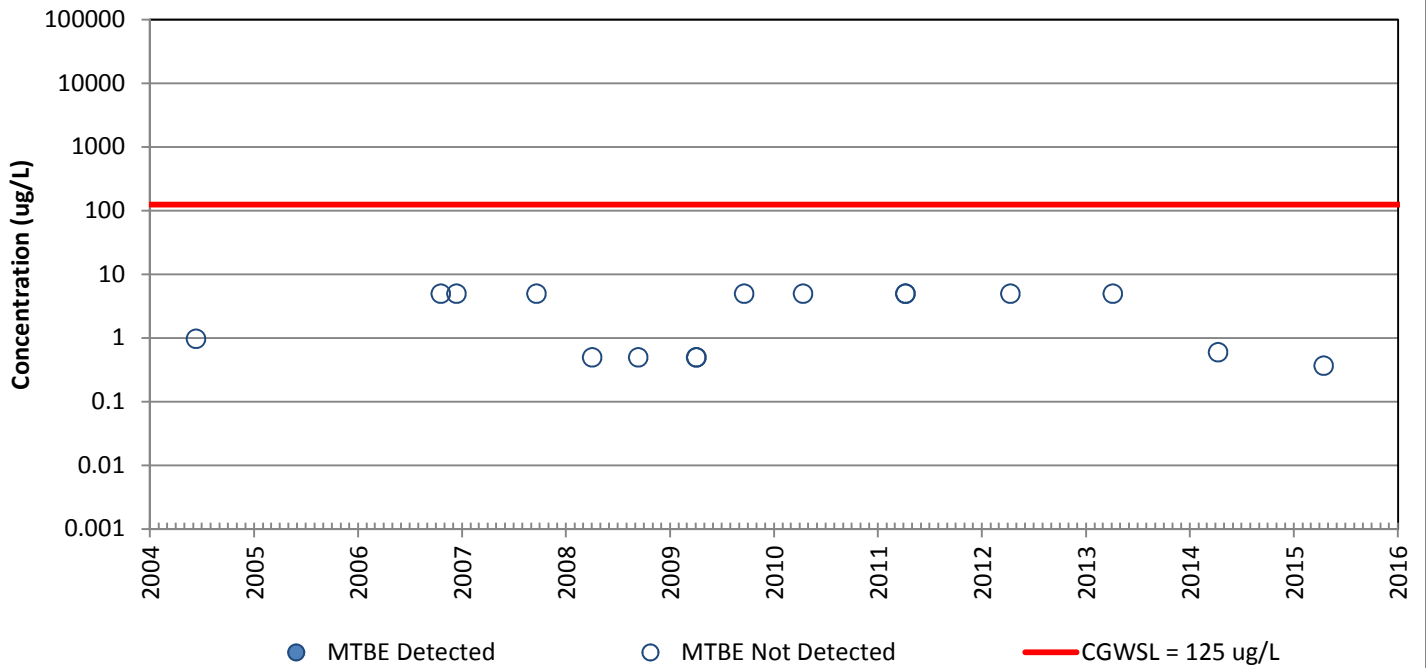


## Xylenes

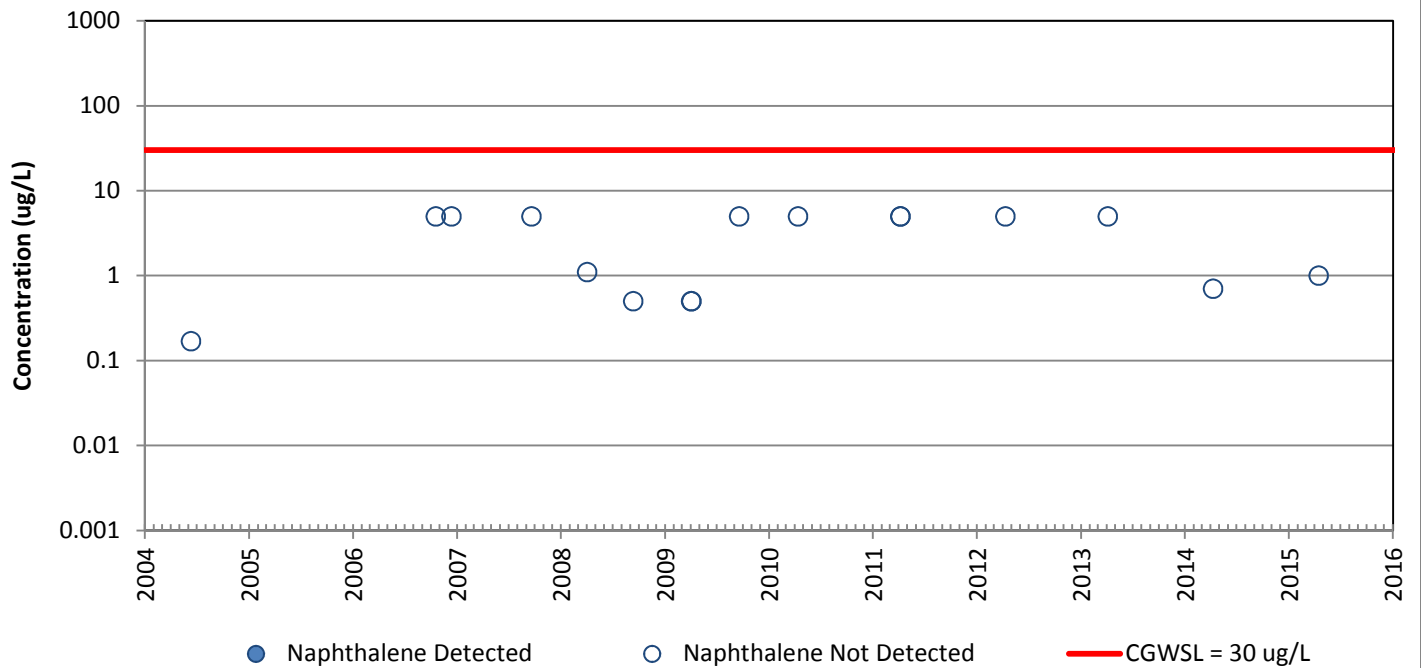


# MW-16

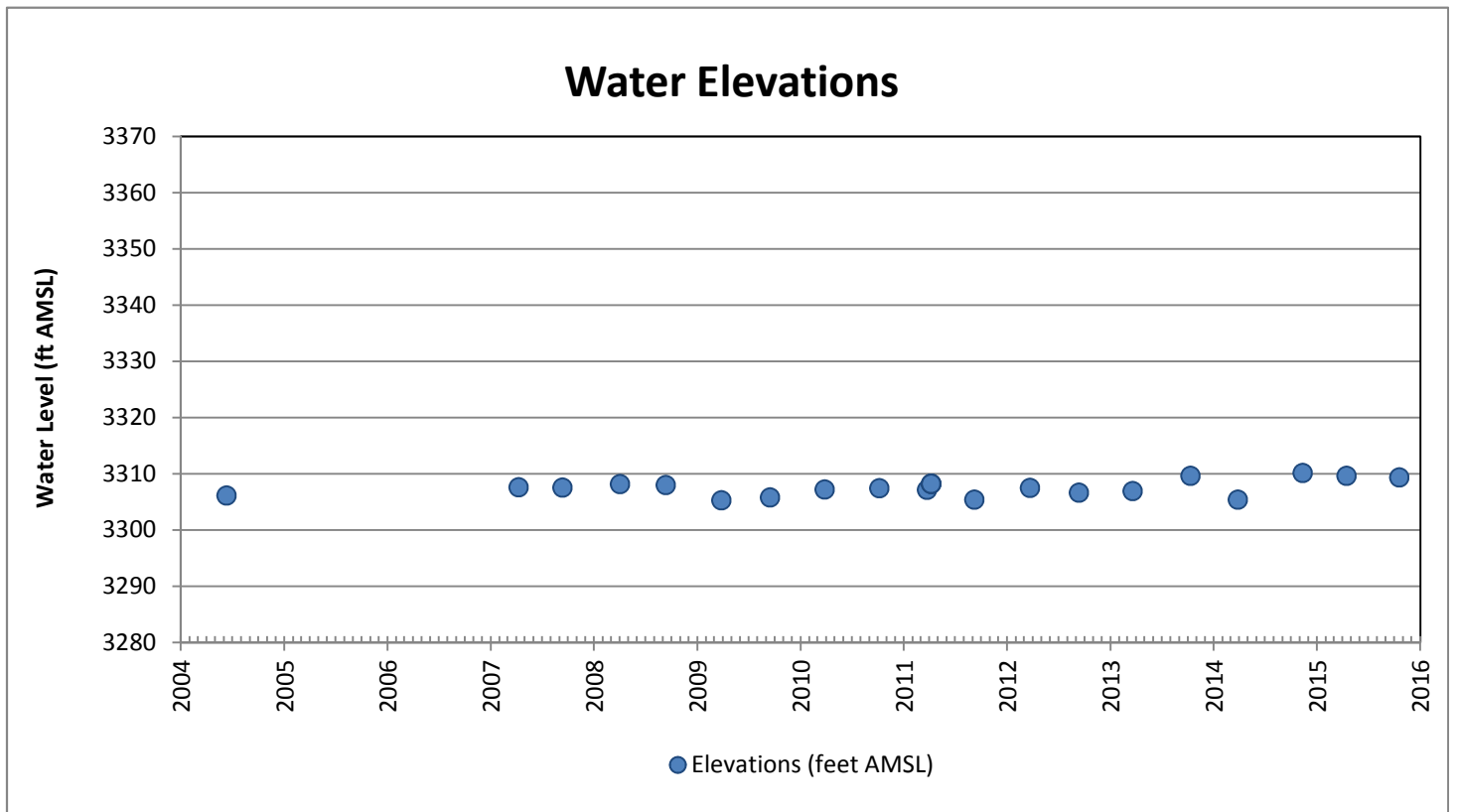
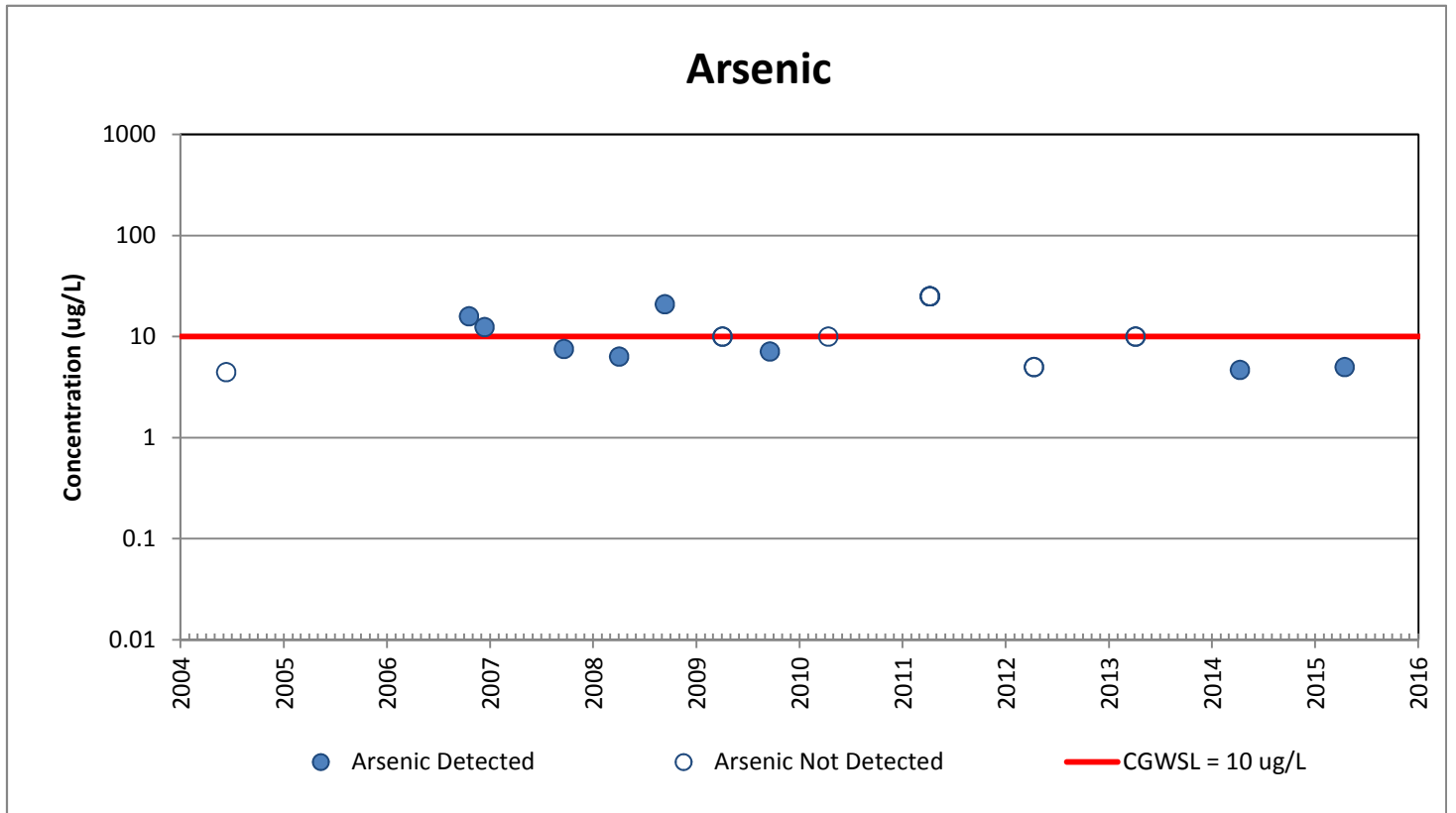
## MTBE



## Naphthalene

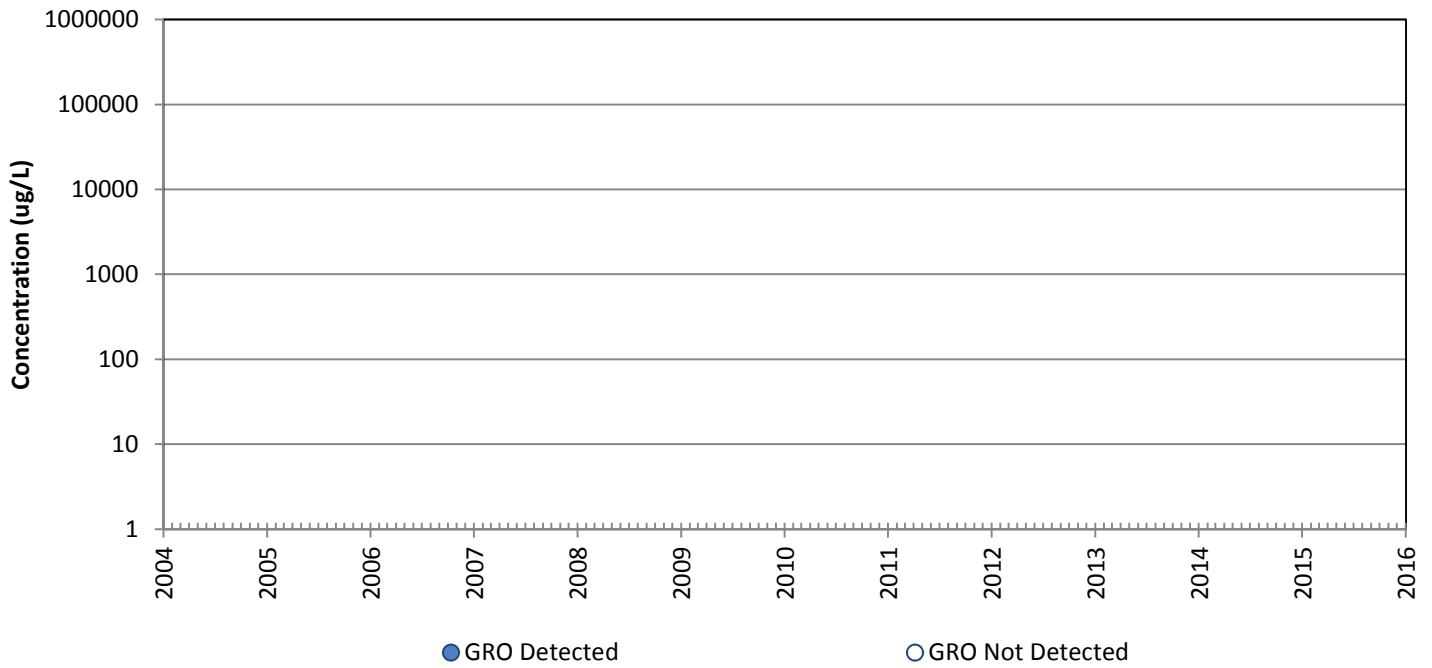


# MW-16

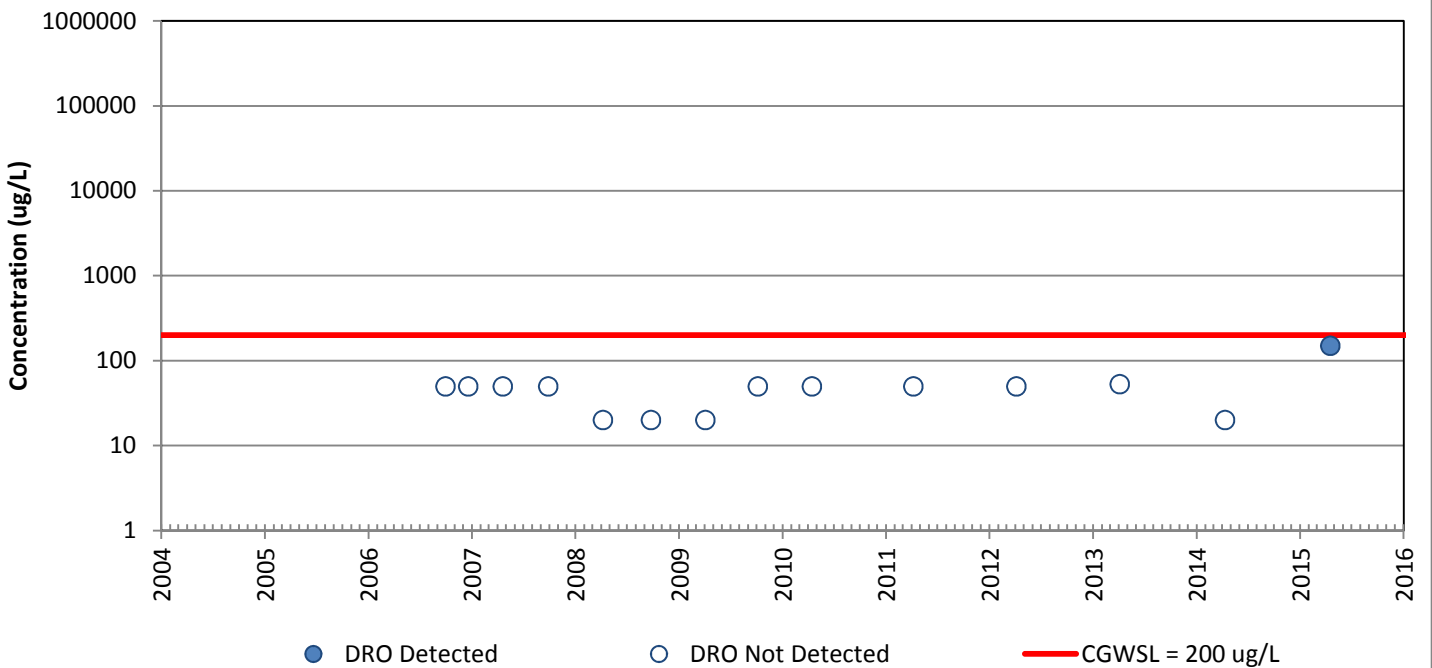


# MW-20

## GRO

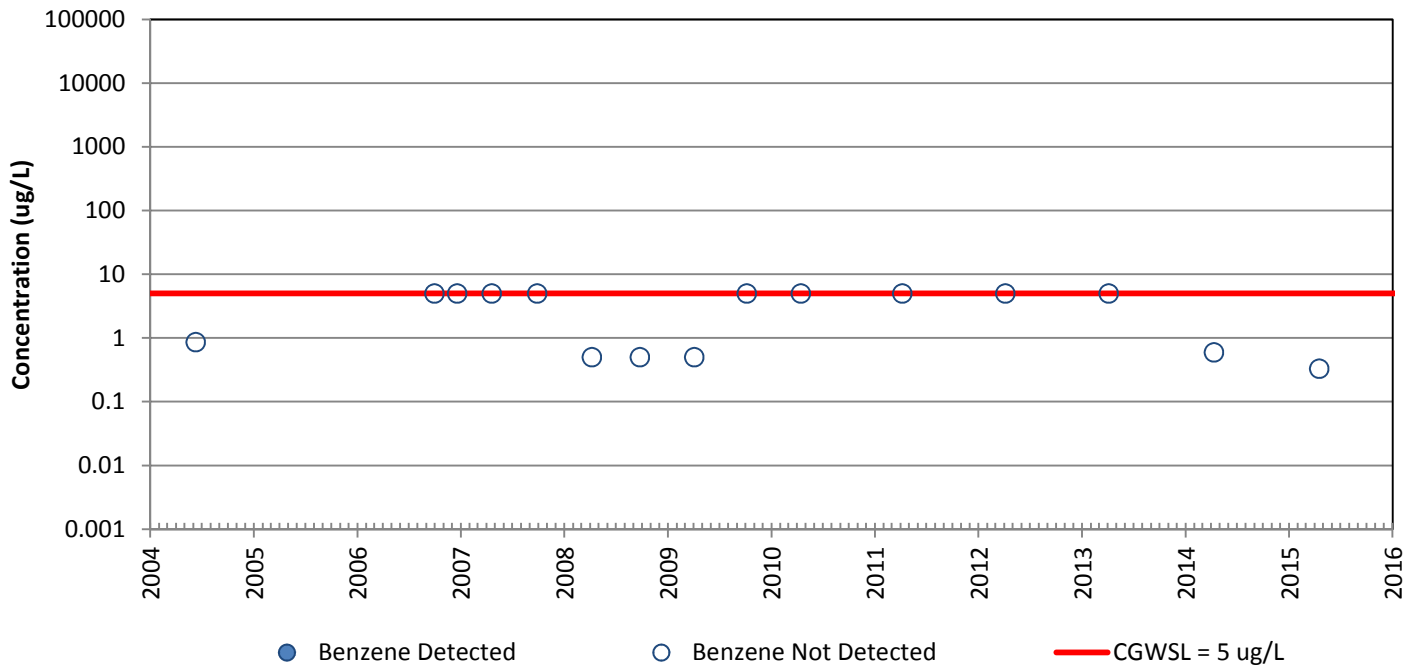


## DRO

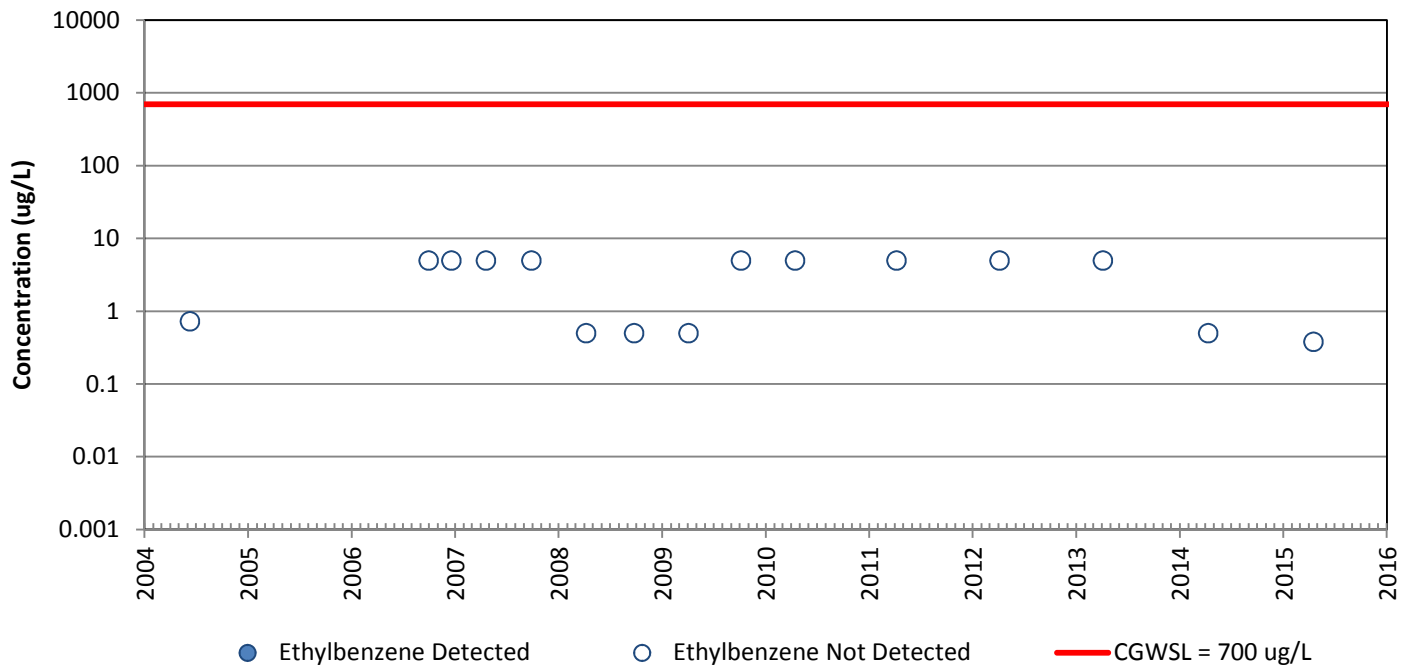


# MW-20

## Benzene

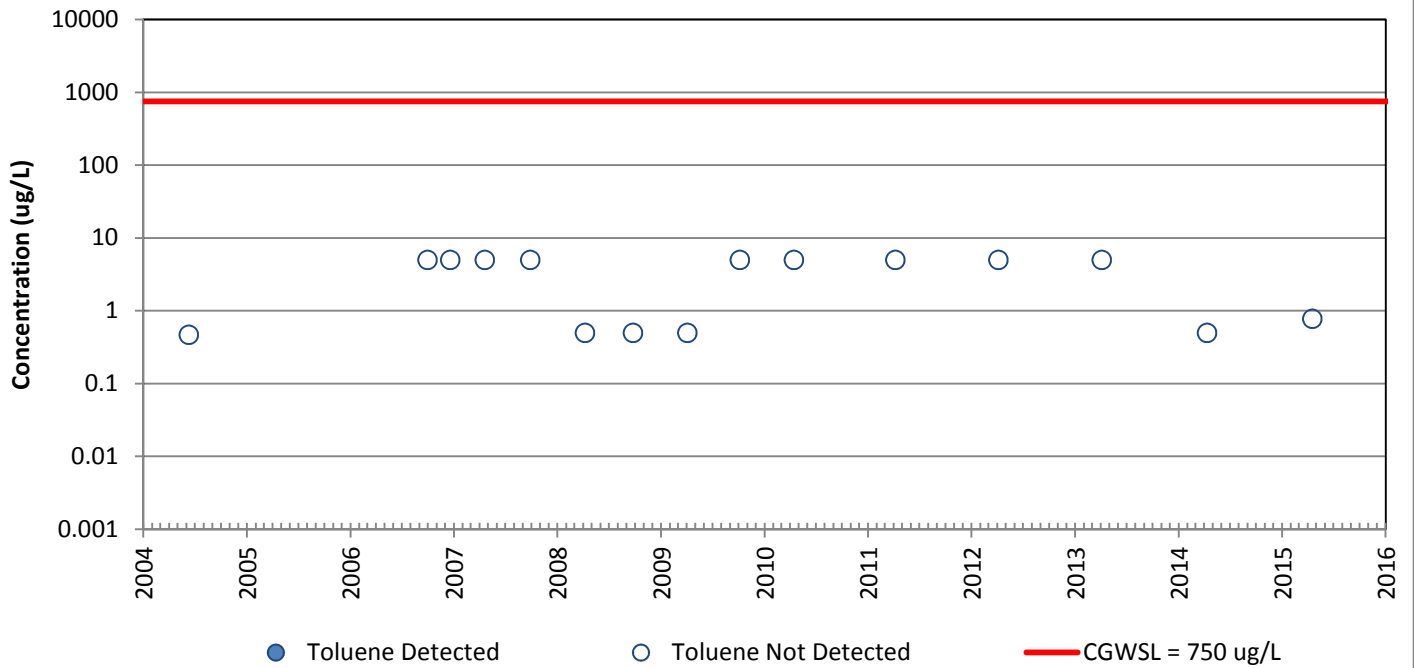


## Ethylbenzene

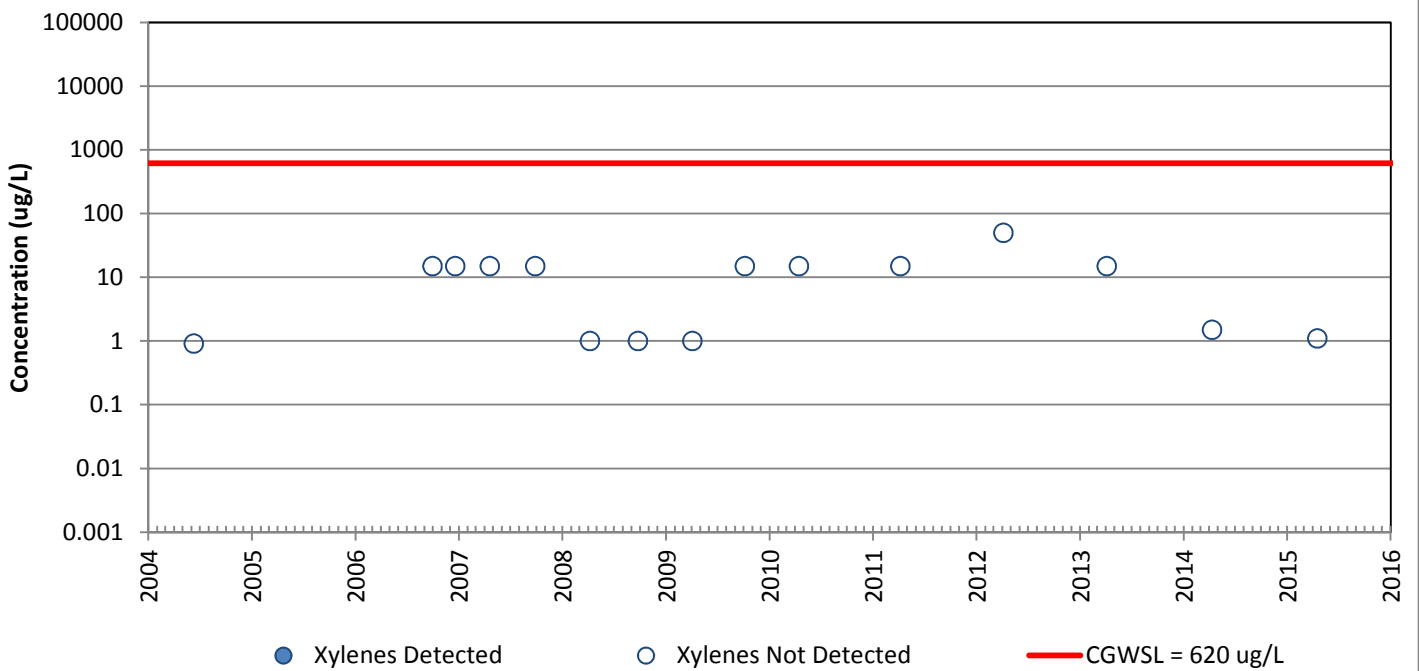


# MW-20

## Toluene

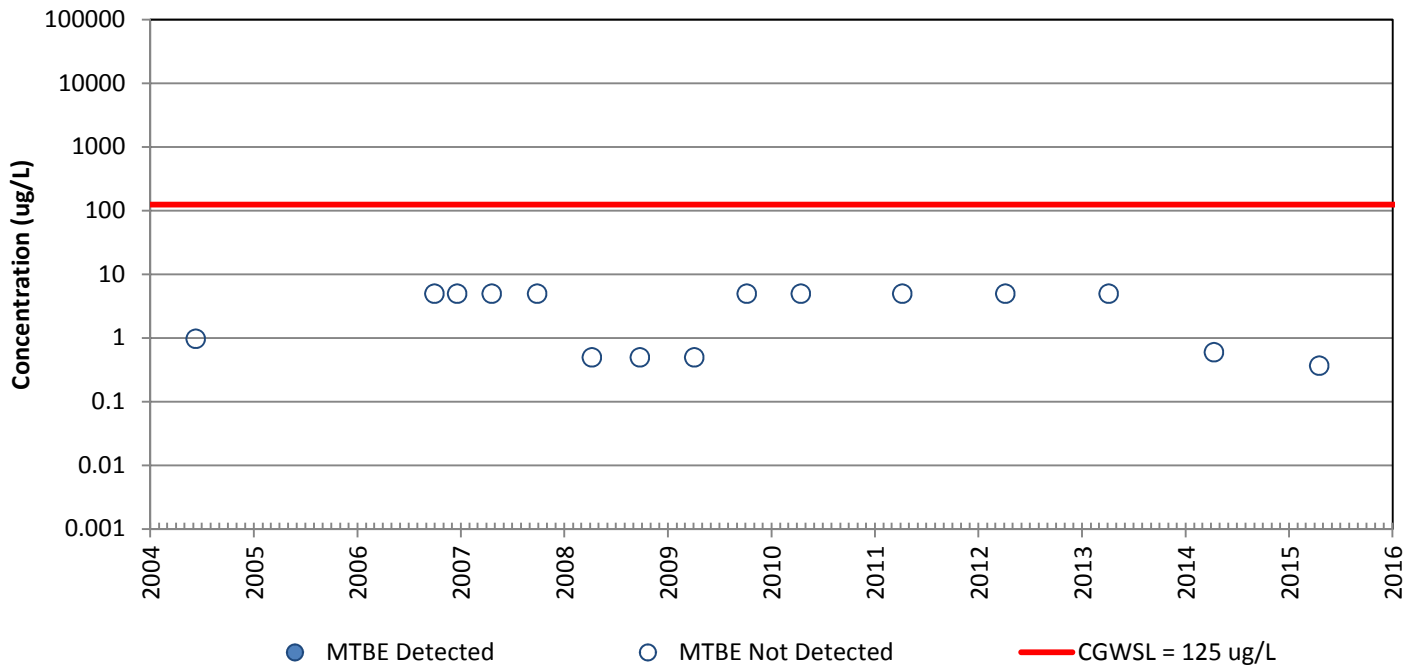


## Xylenes

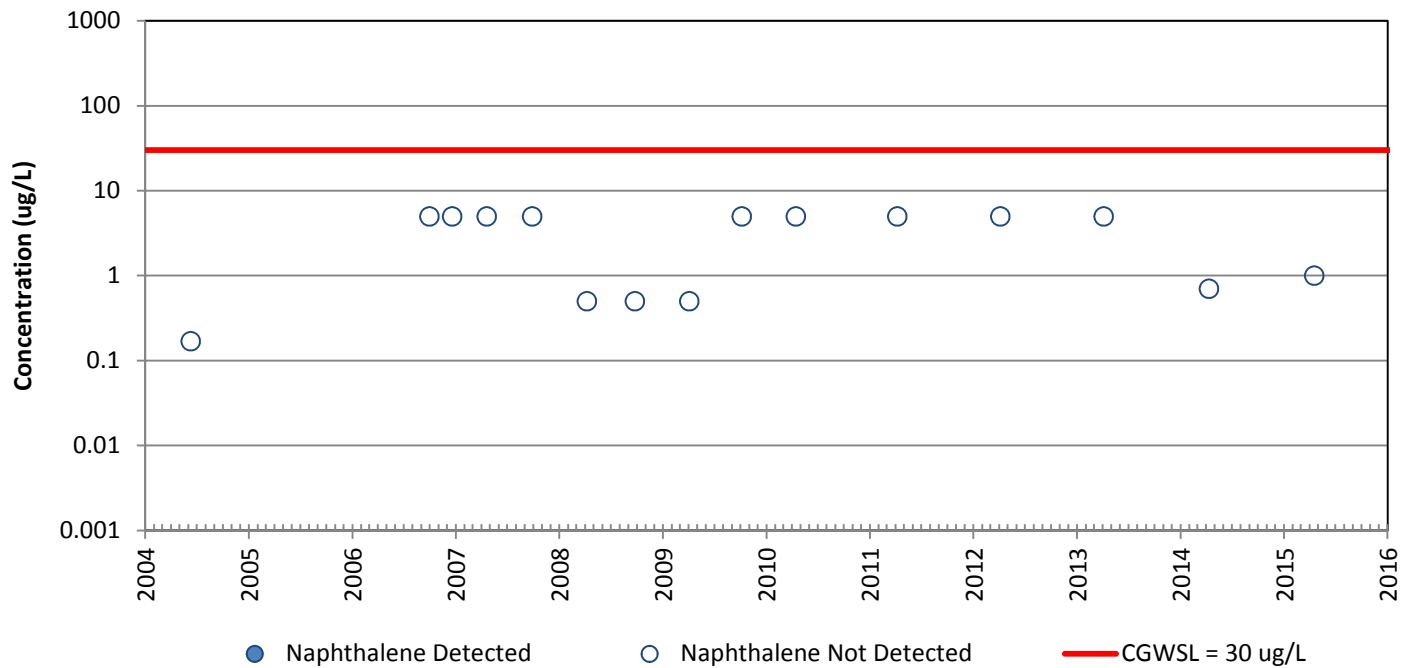


# MW-20

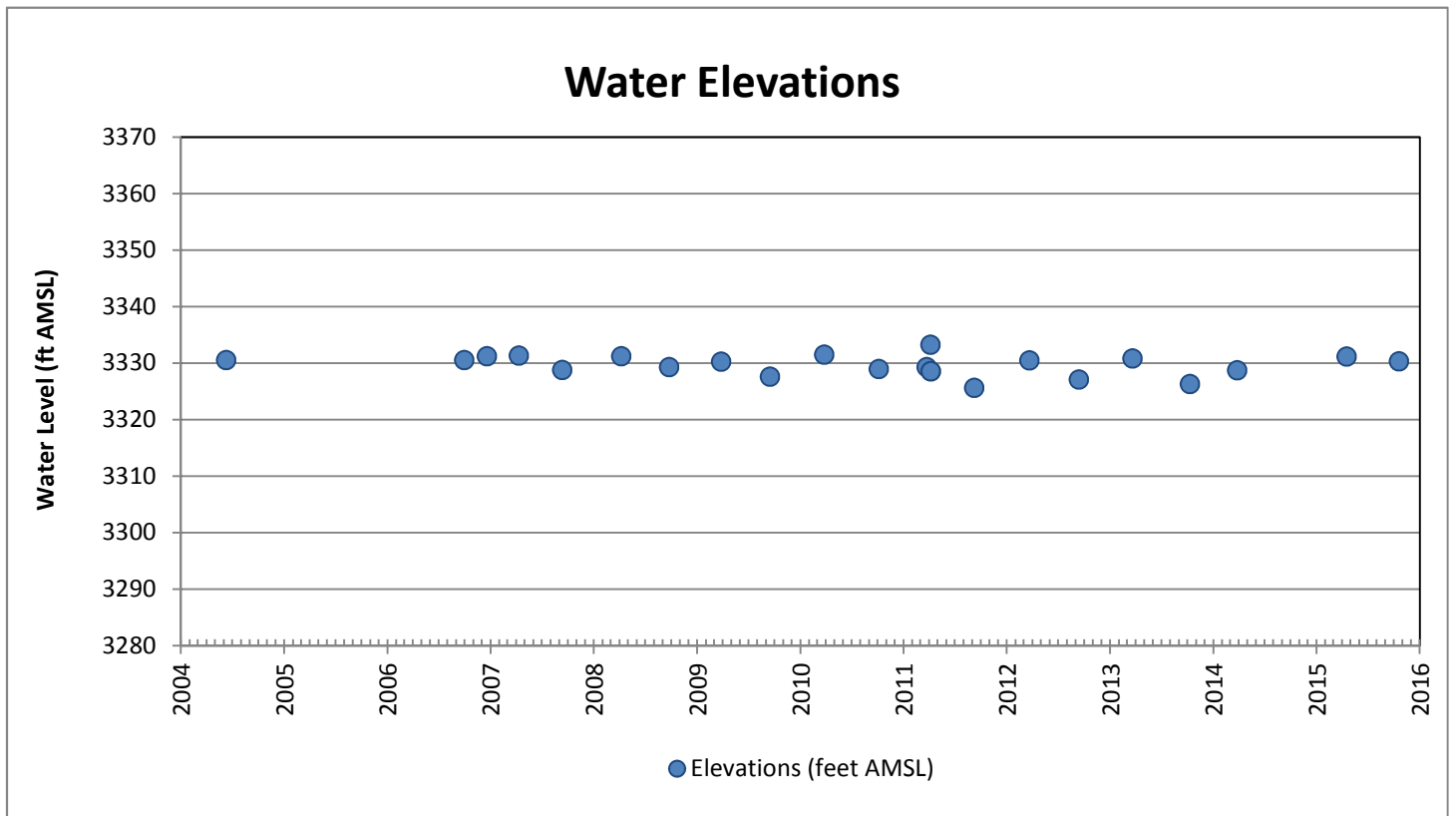
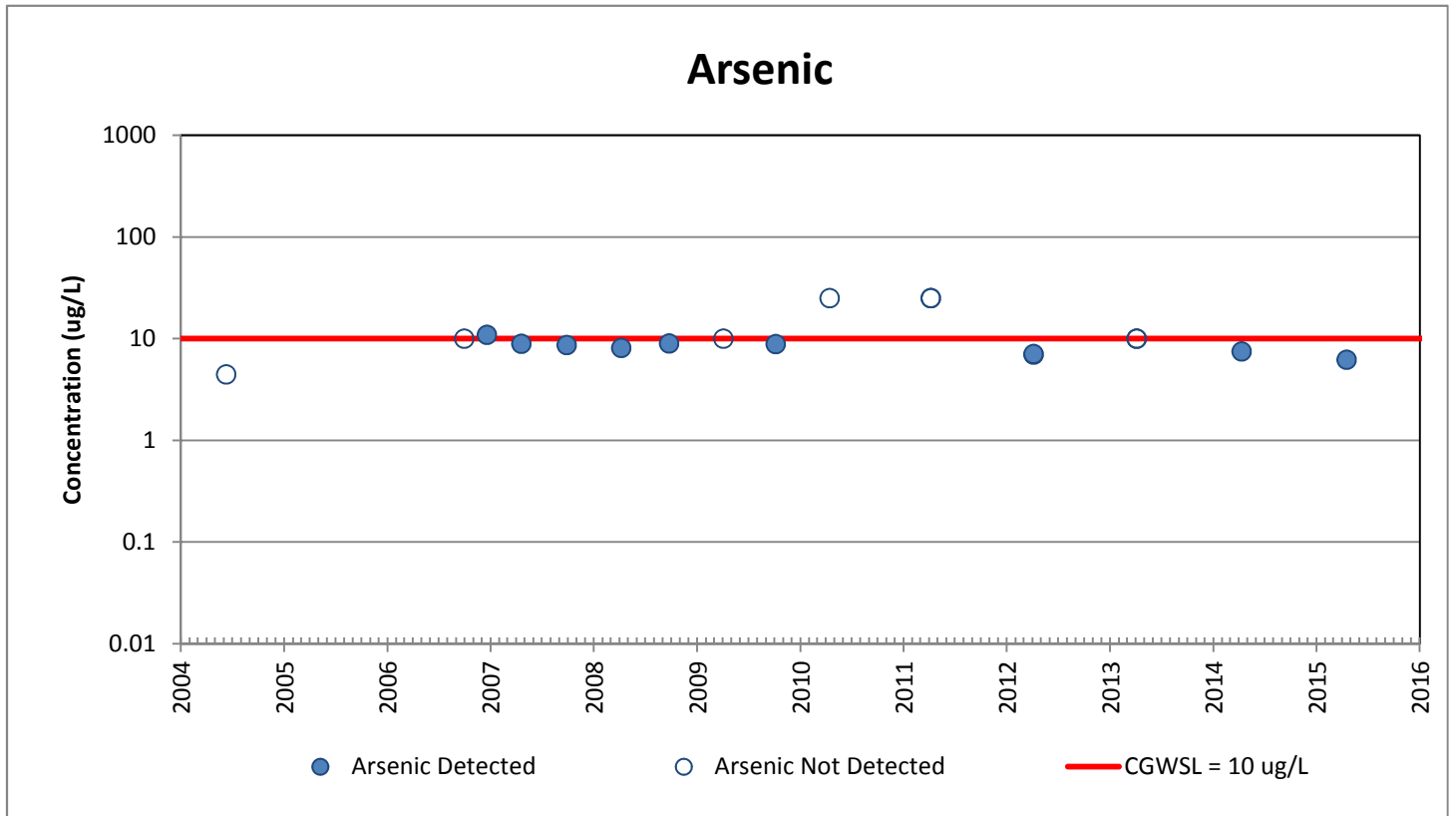
## MTBE



## Naphthalene

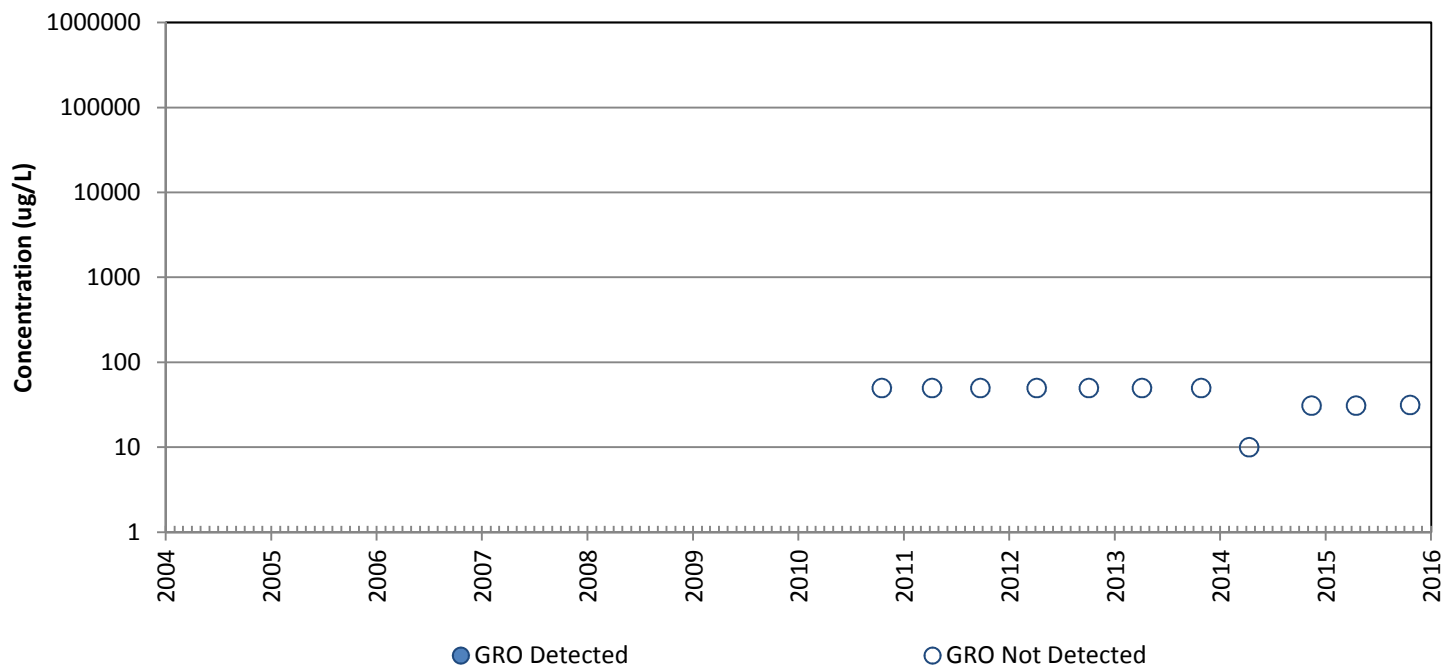


# MW-20

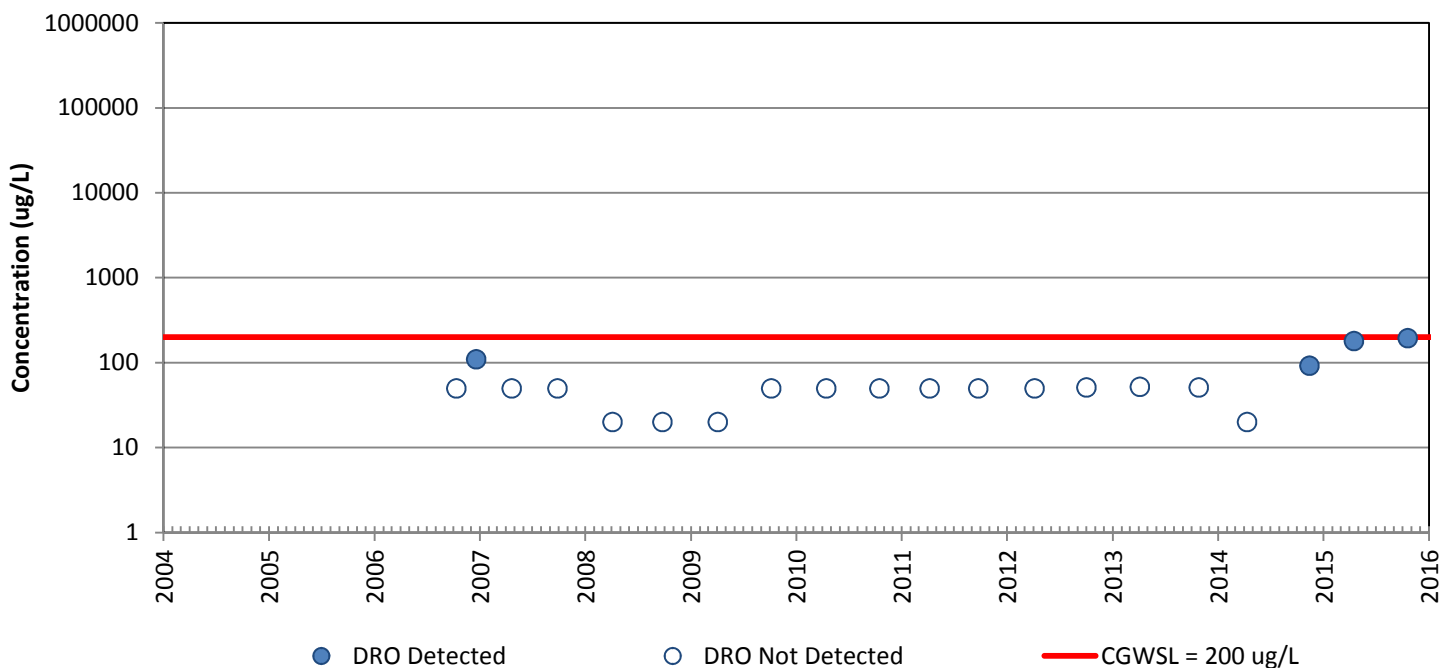


# MW-21

## GRO

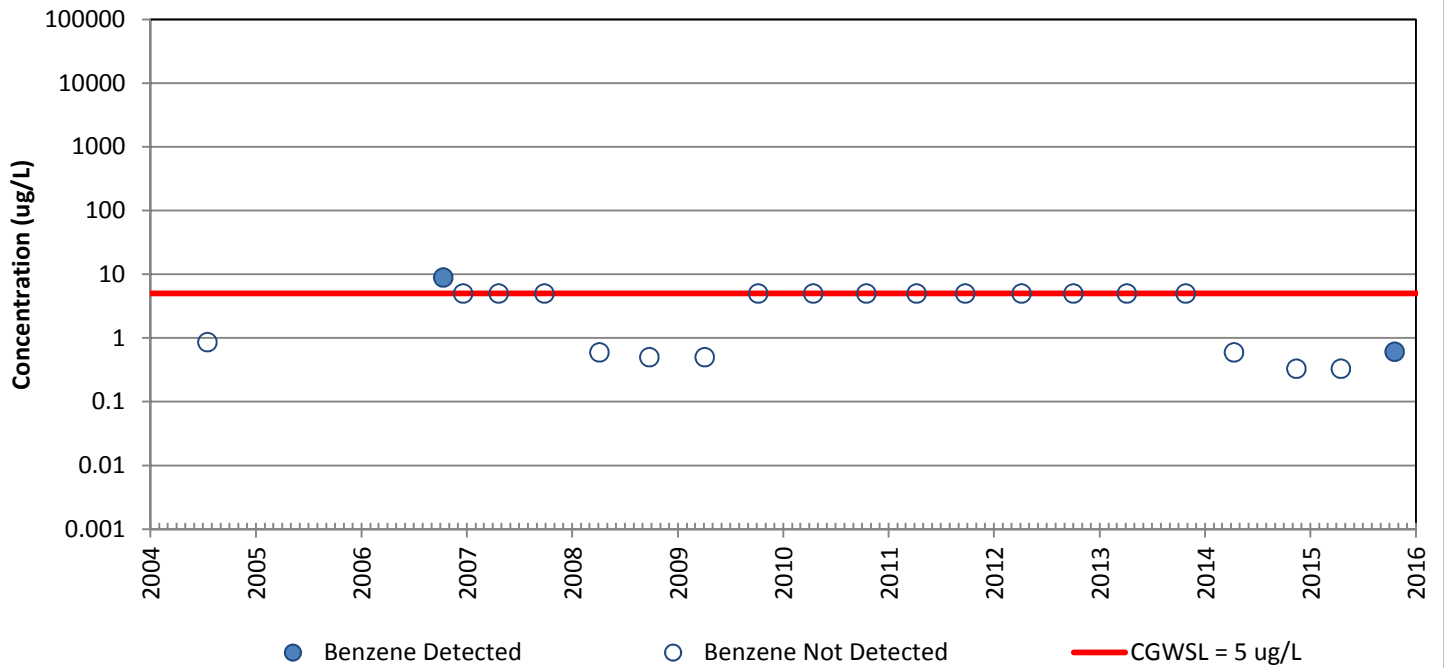


## DRO

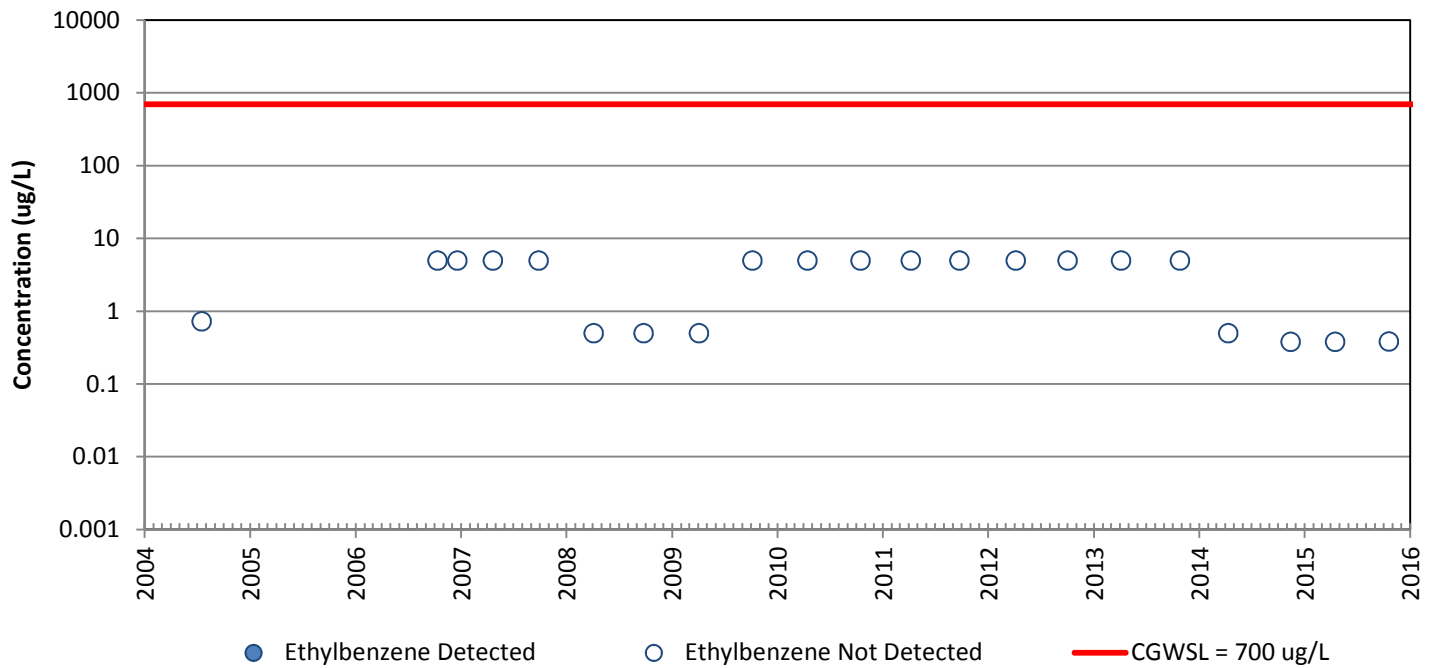


# MW-21

## Benzene

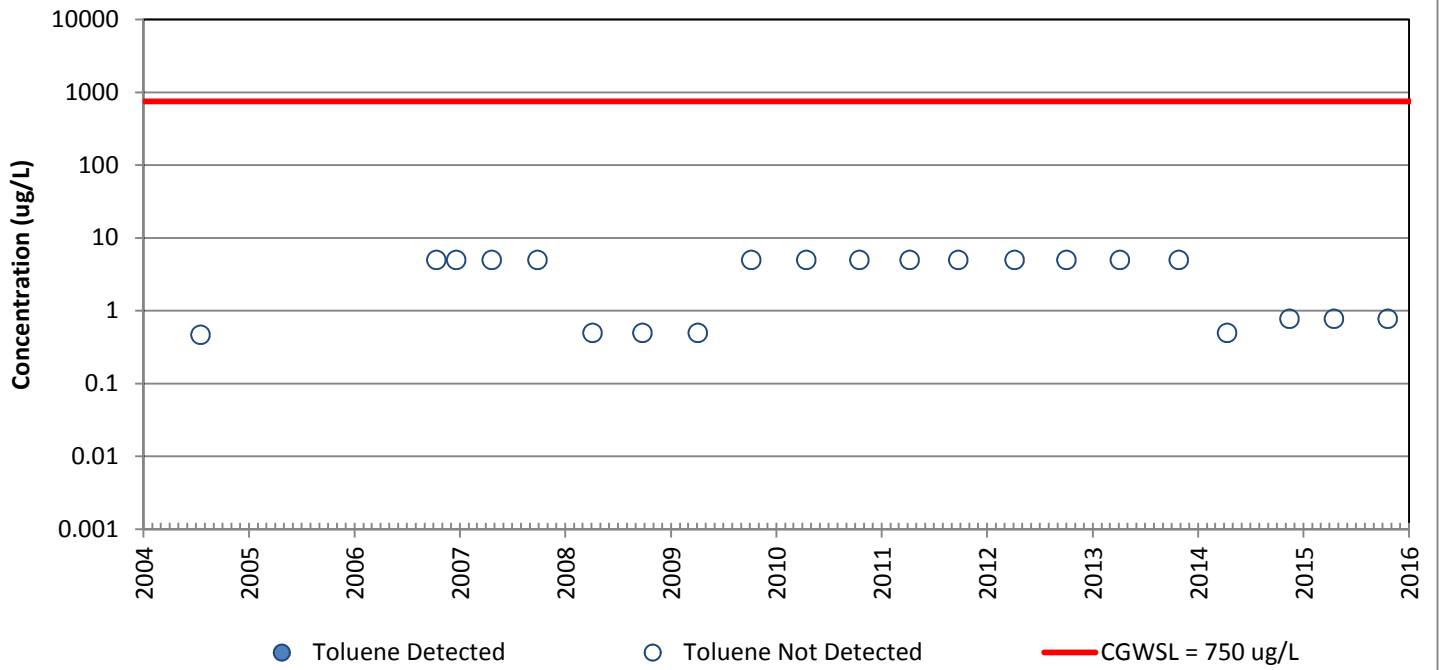


## Ethylbenzene

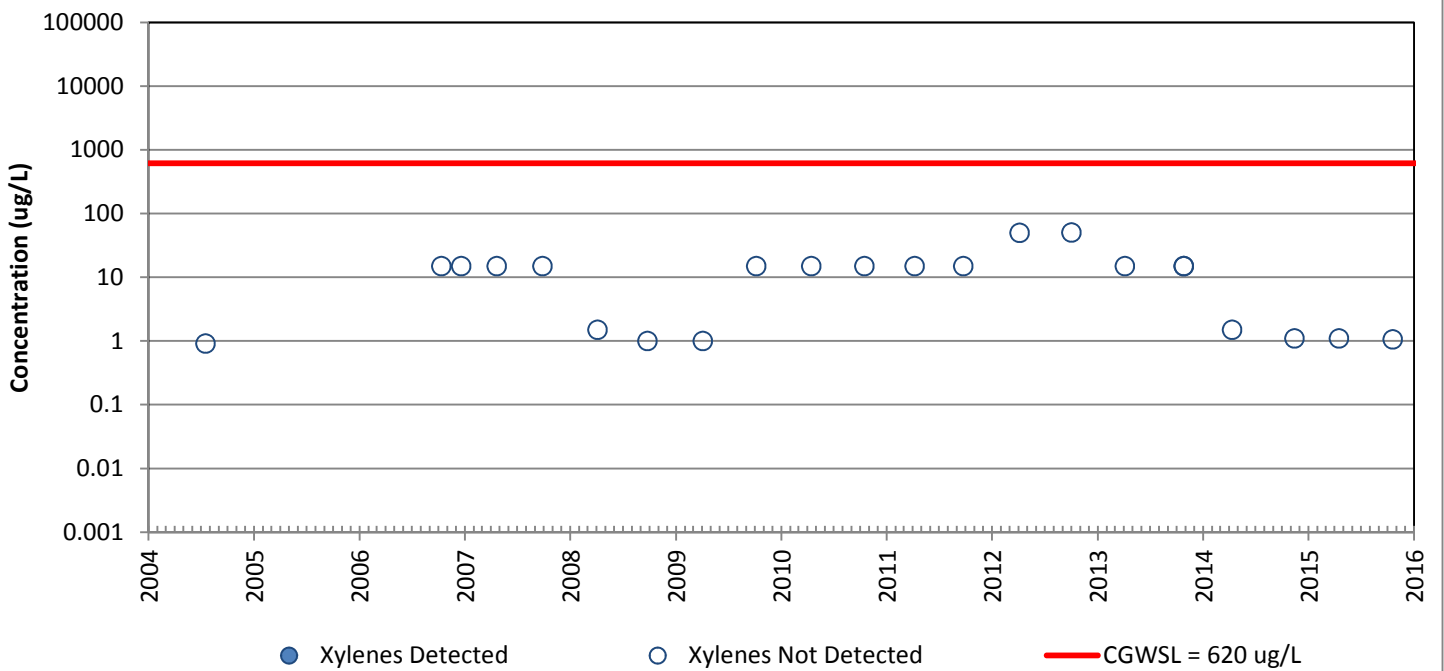


# MW-21

## Toluene

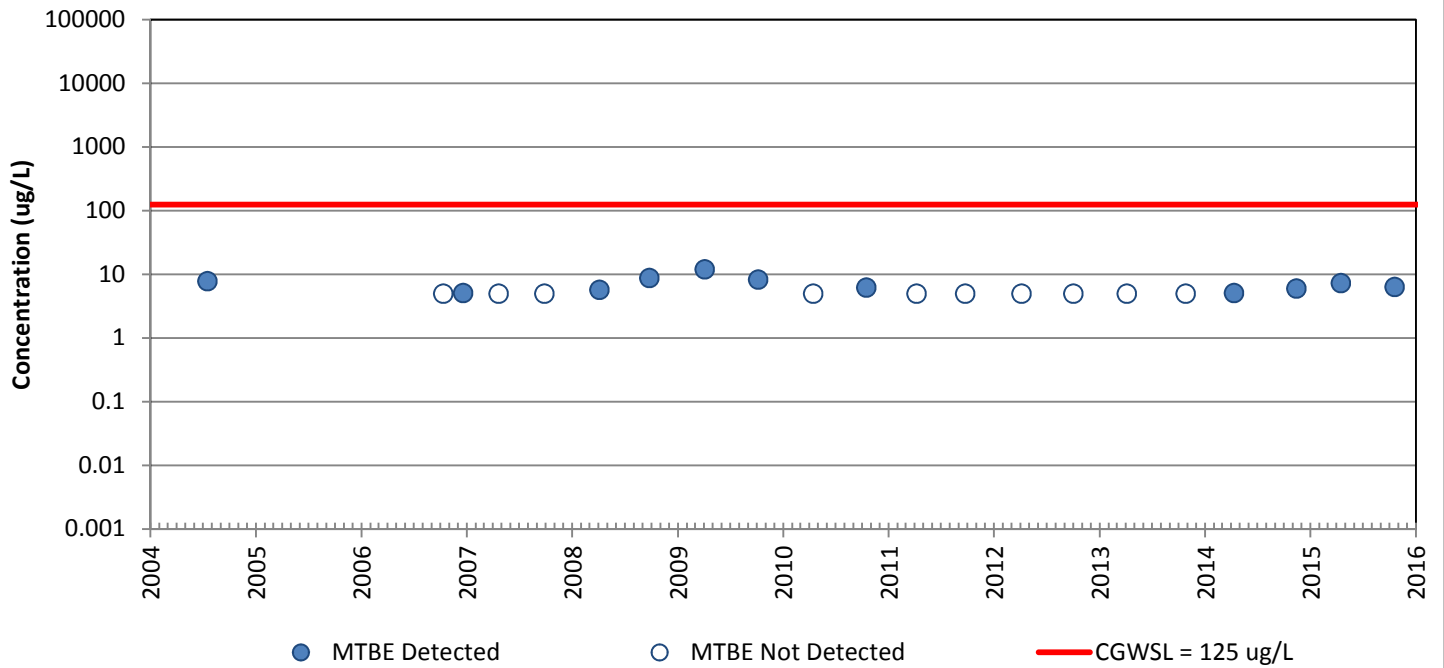


## Xylenes

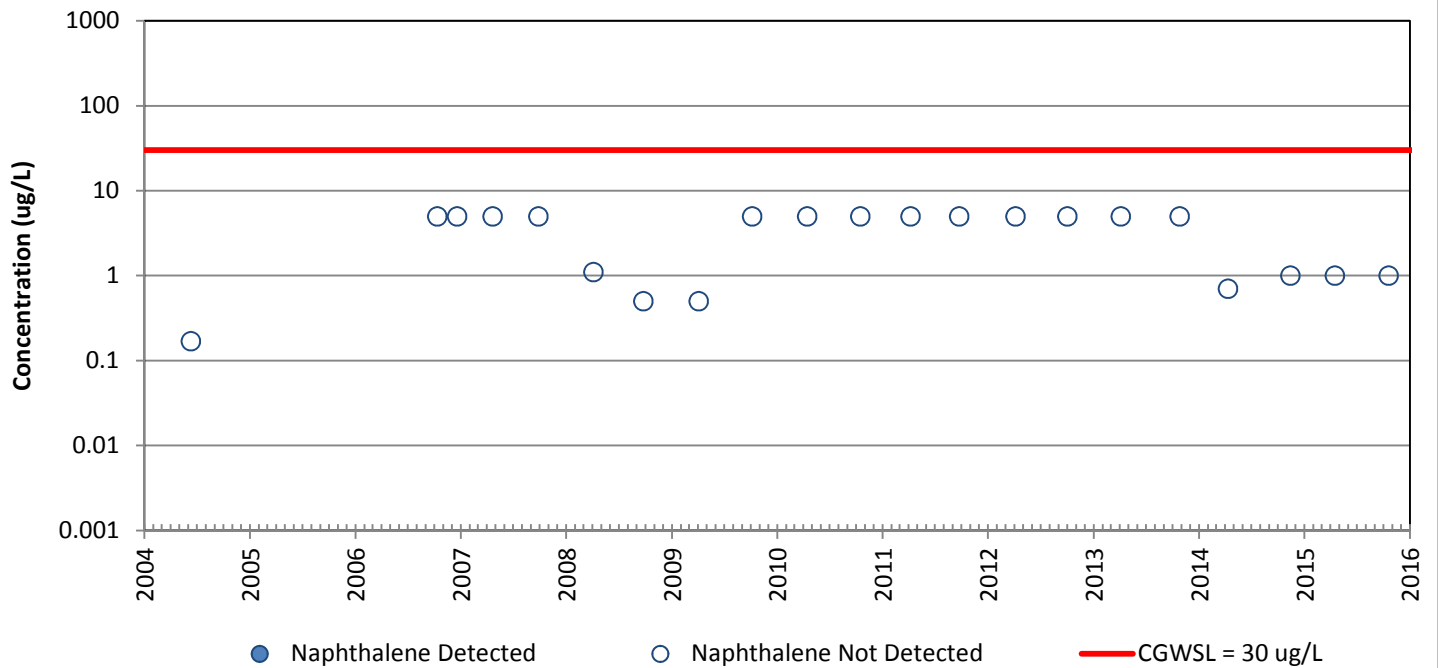


# MW-21

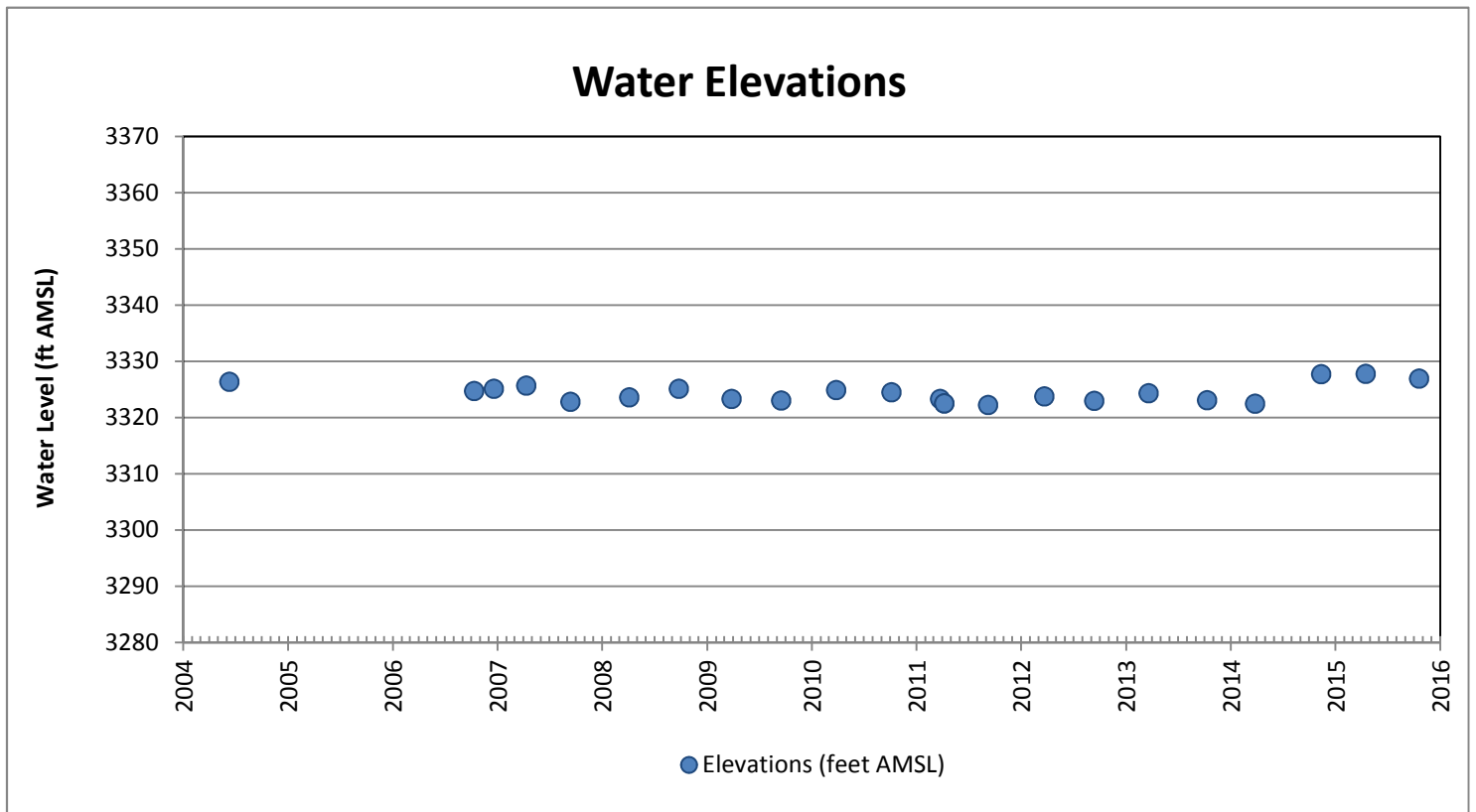
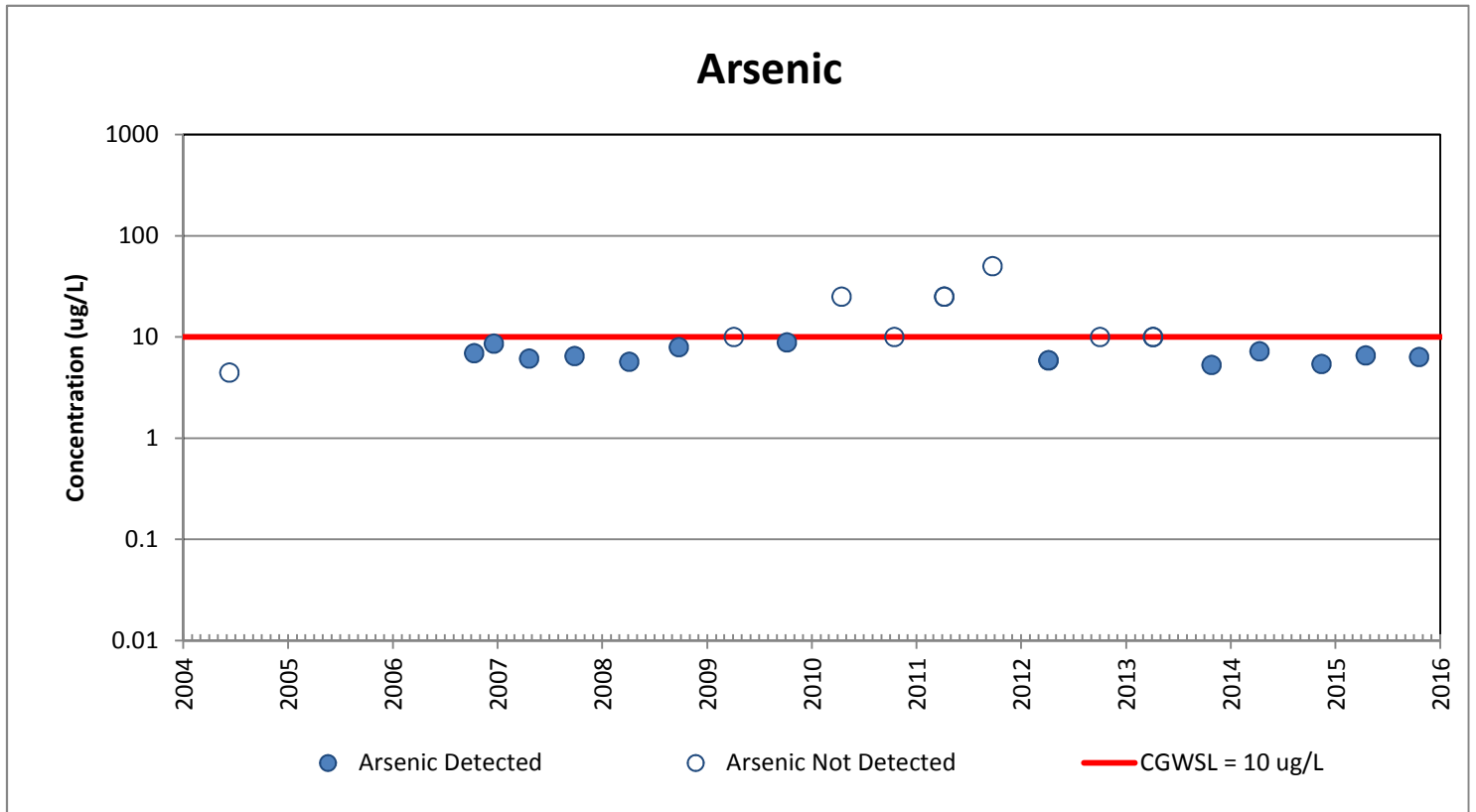
## MTBE



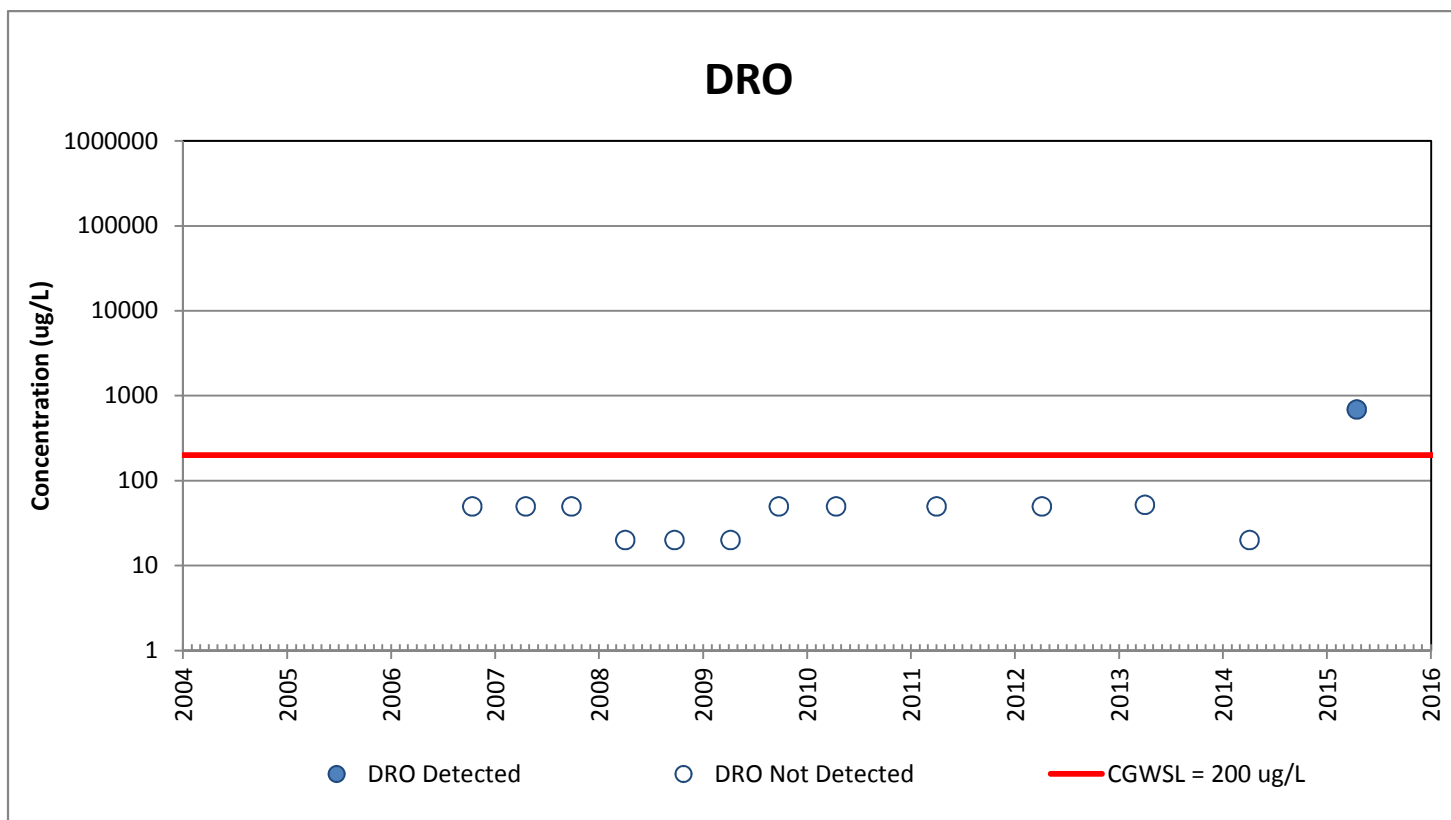
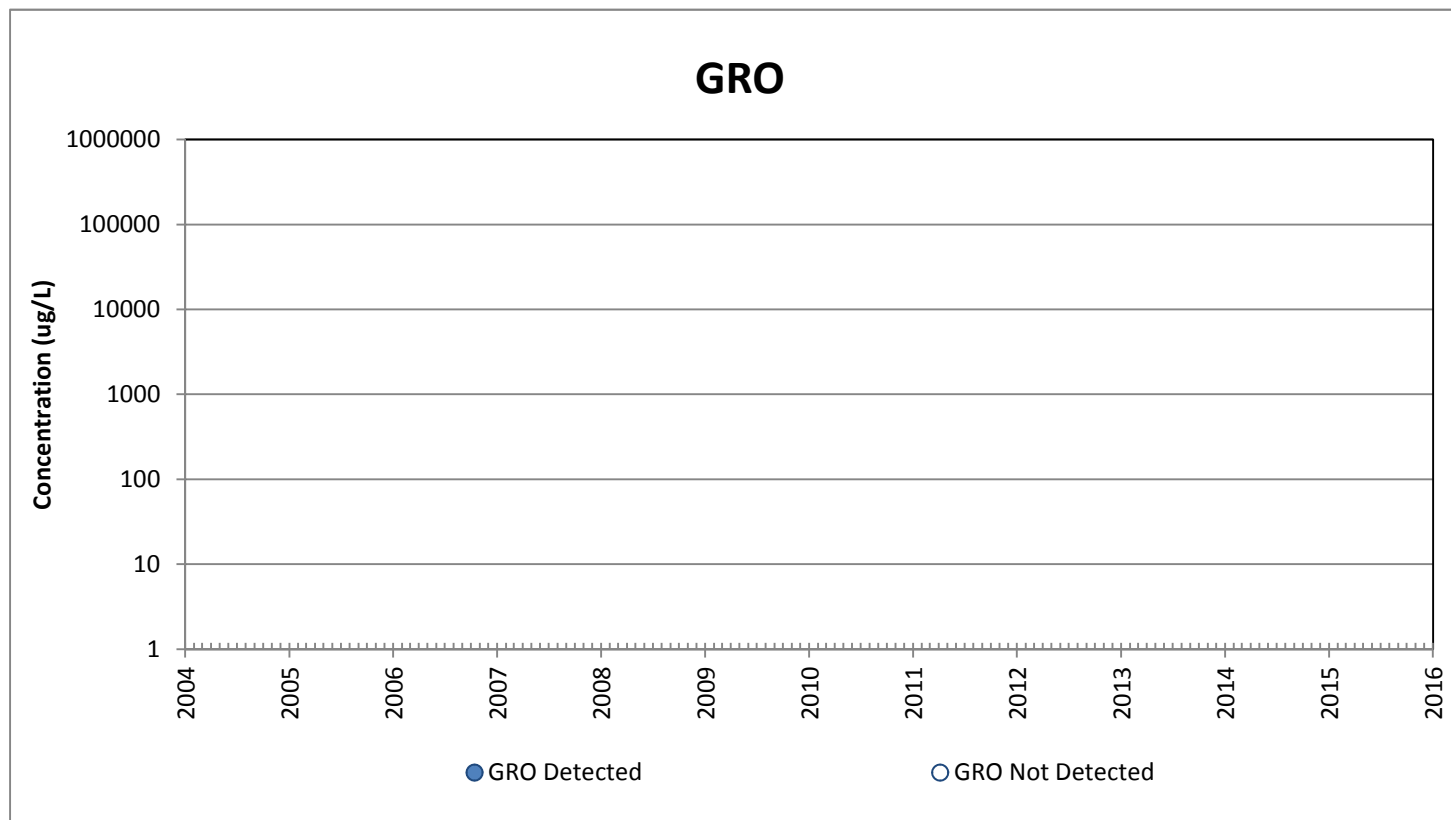
## Naphthalene



# MW-21

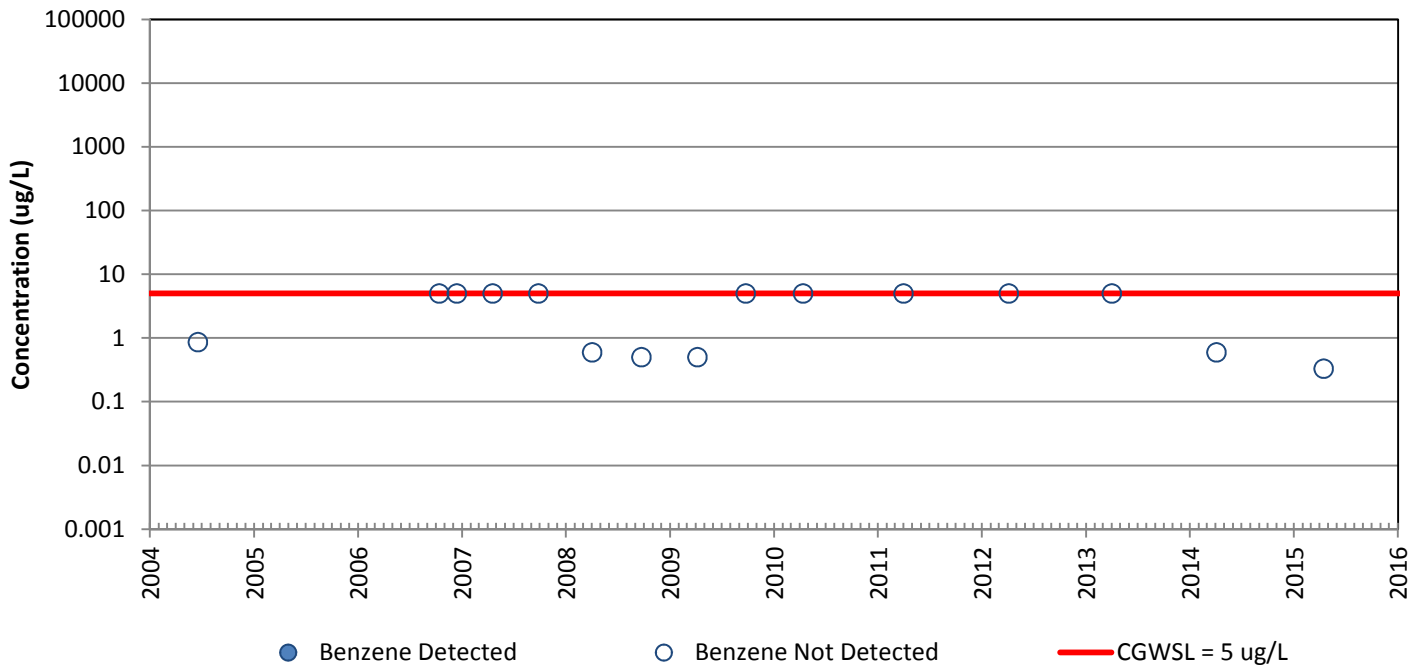


# MW-25

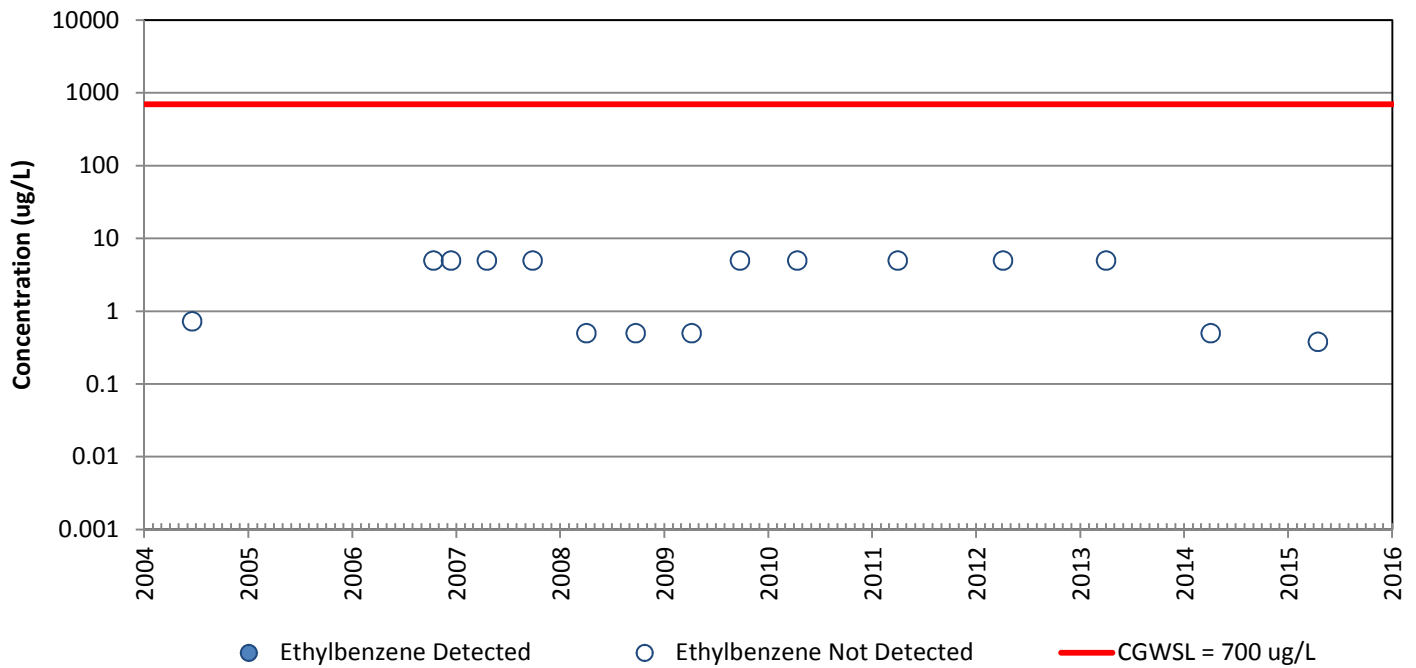


# MW-25

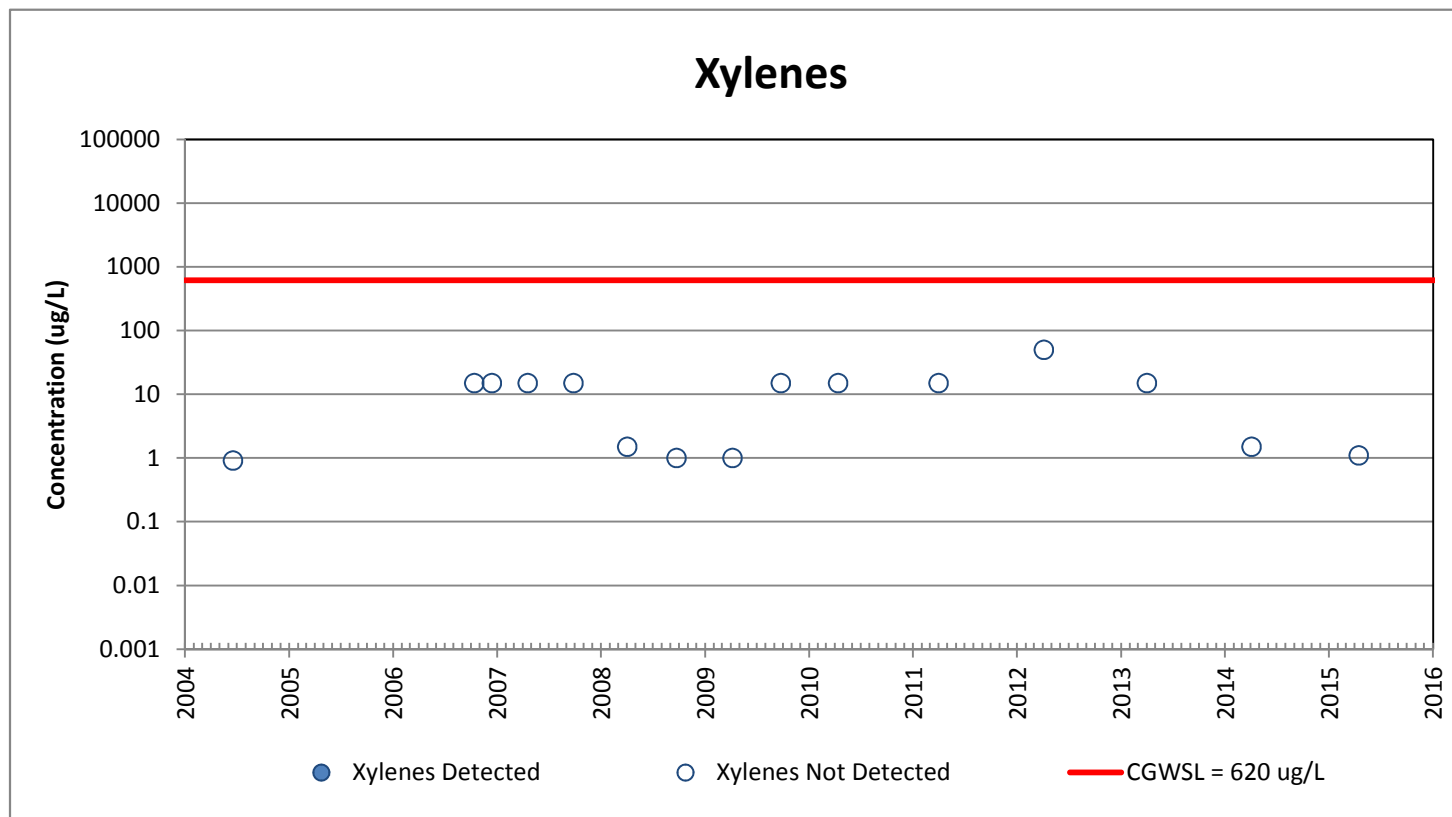
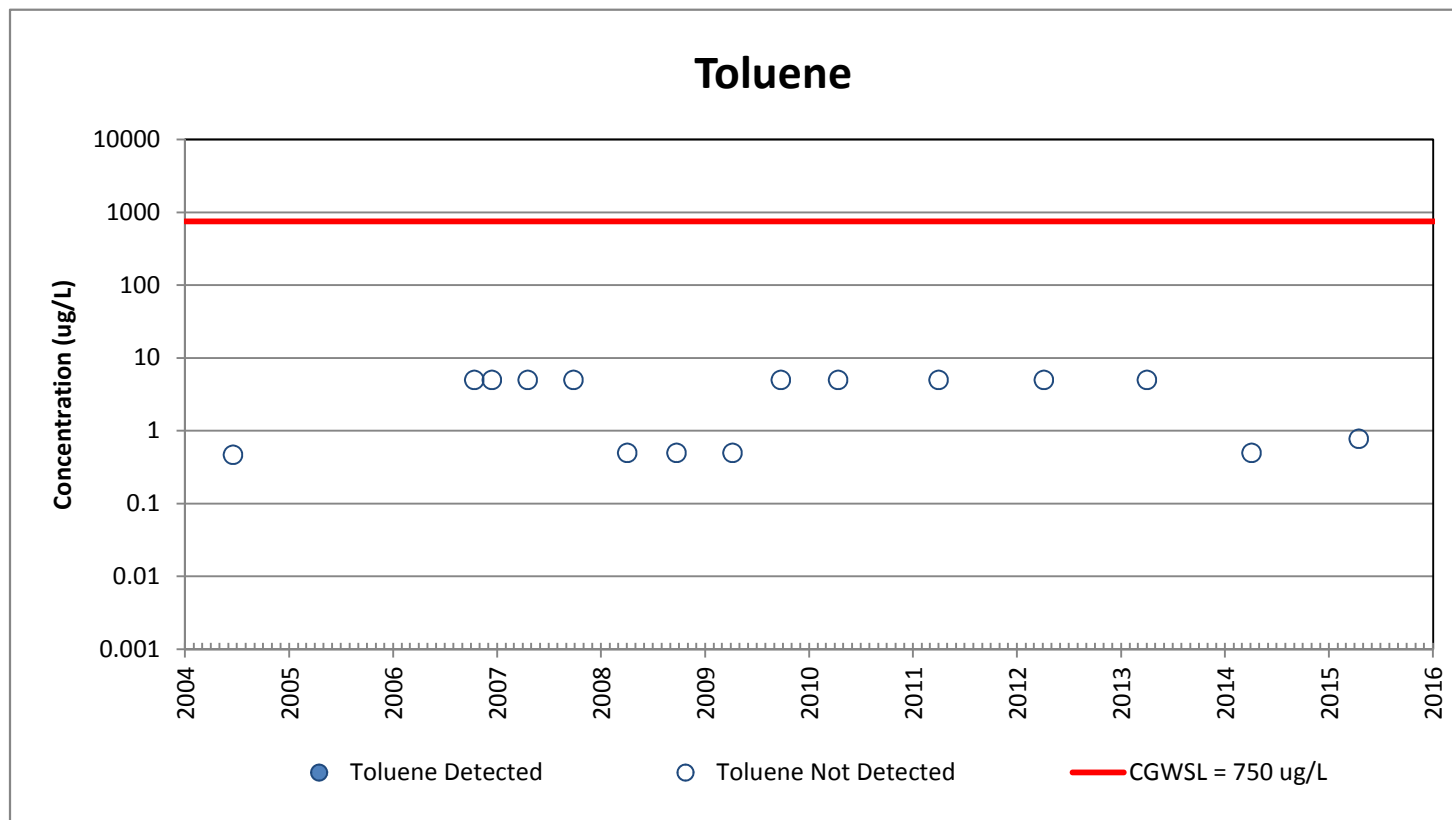
## Benzene



## Ethylbenzene

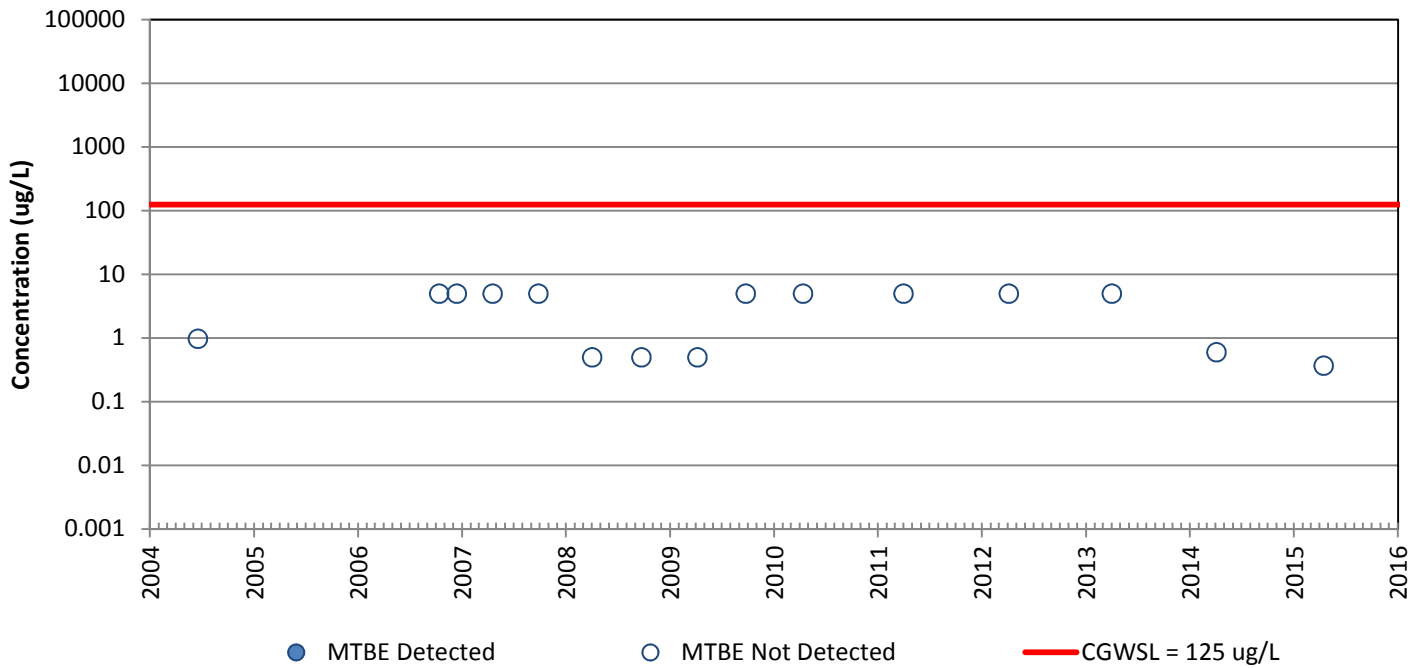


# MW-25

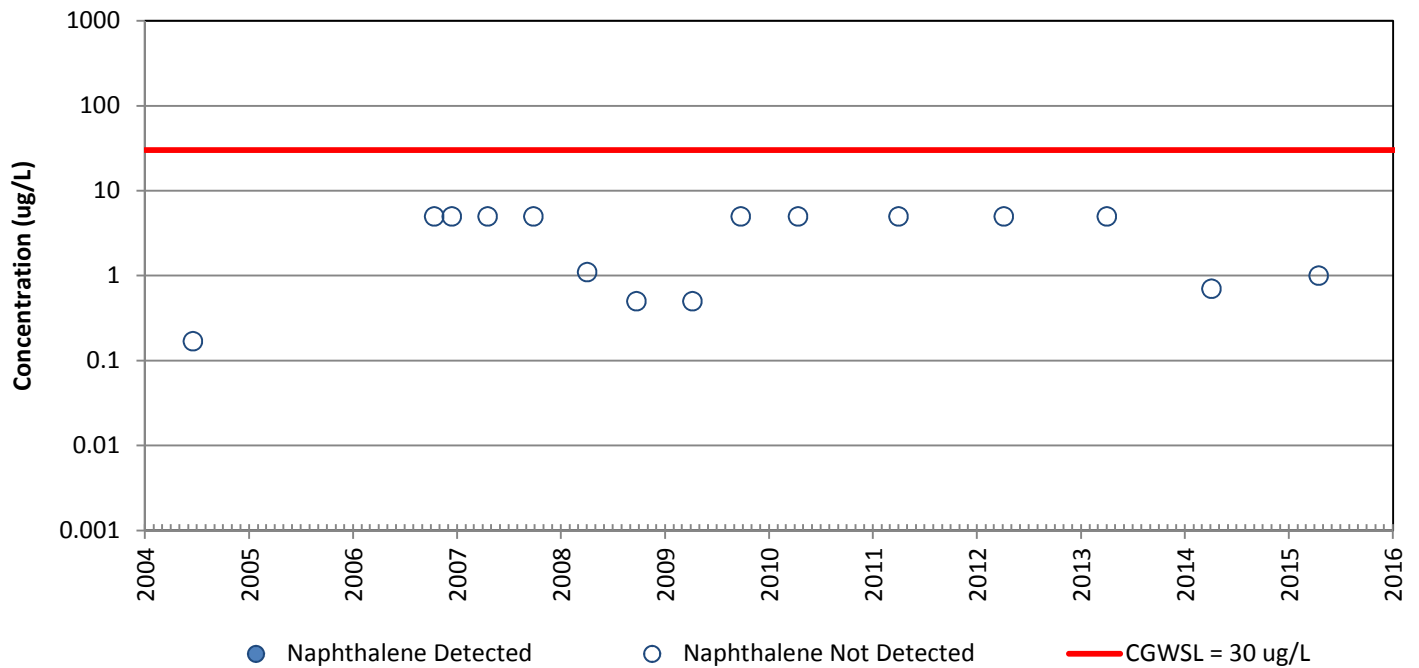


# MW-25

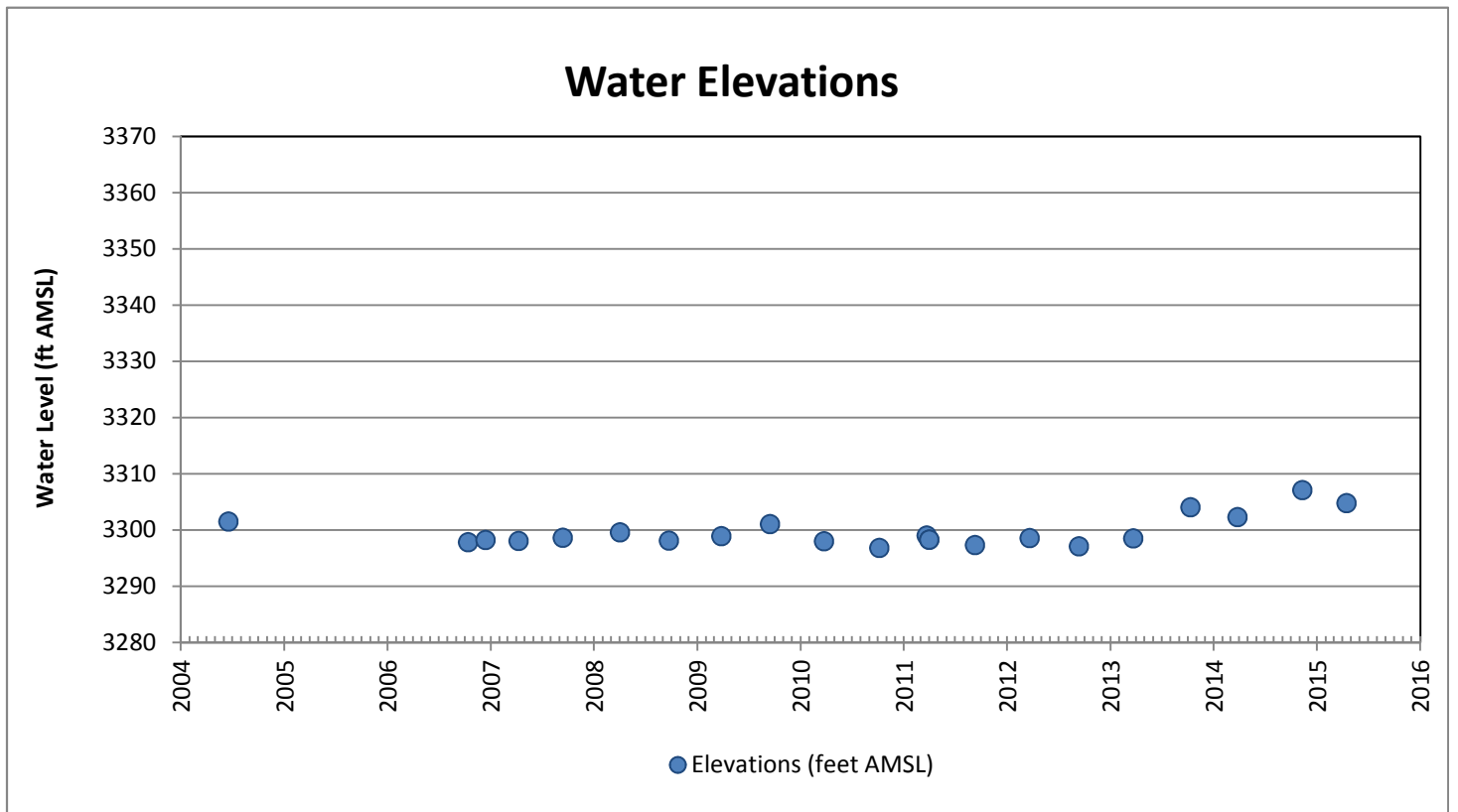
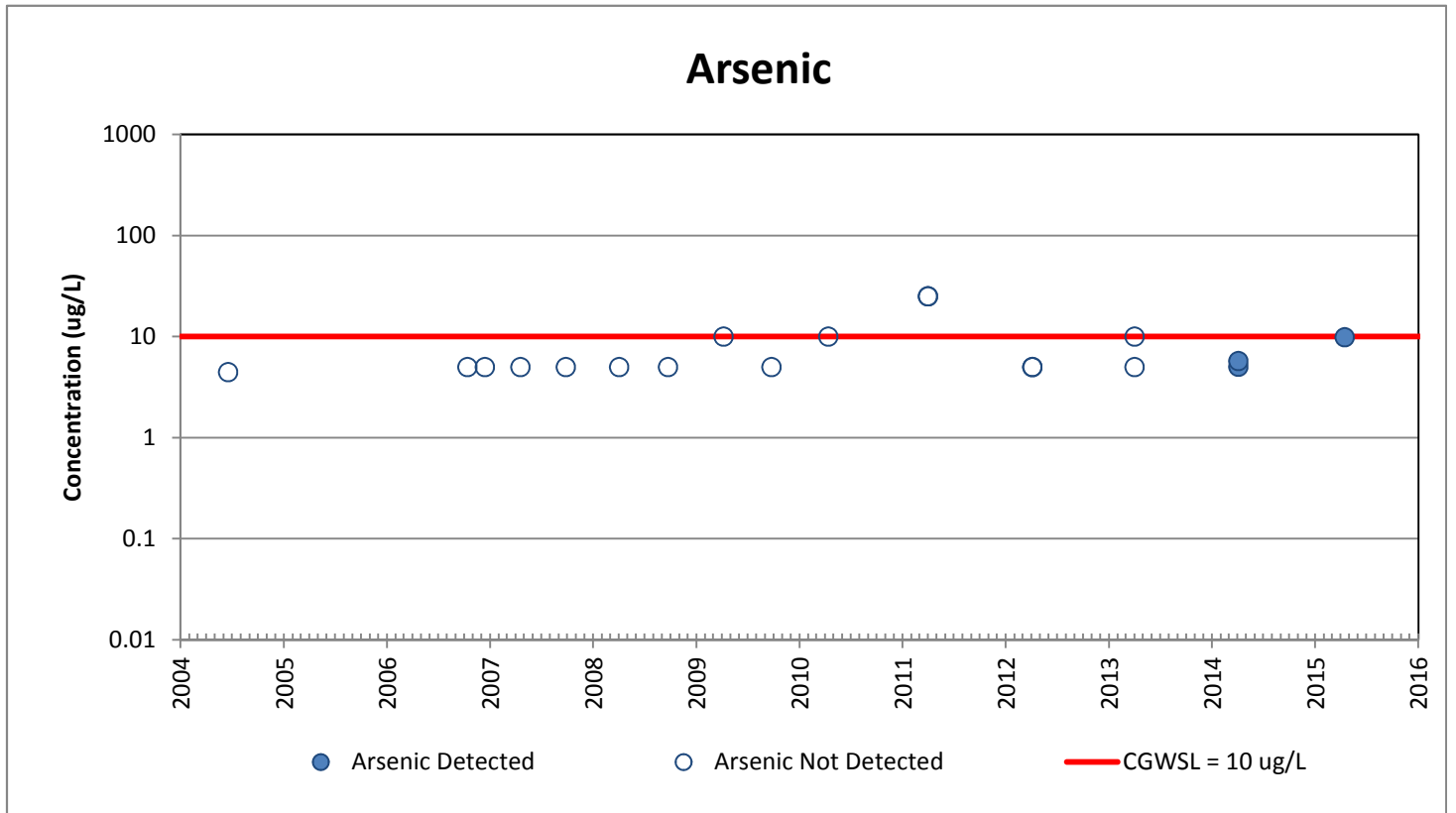
## MTBE



## Naphthalene

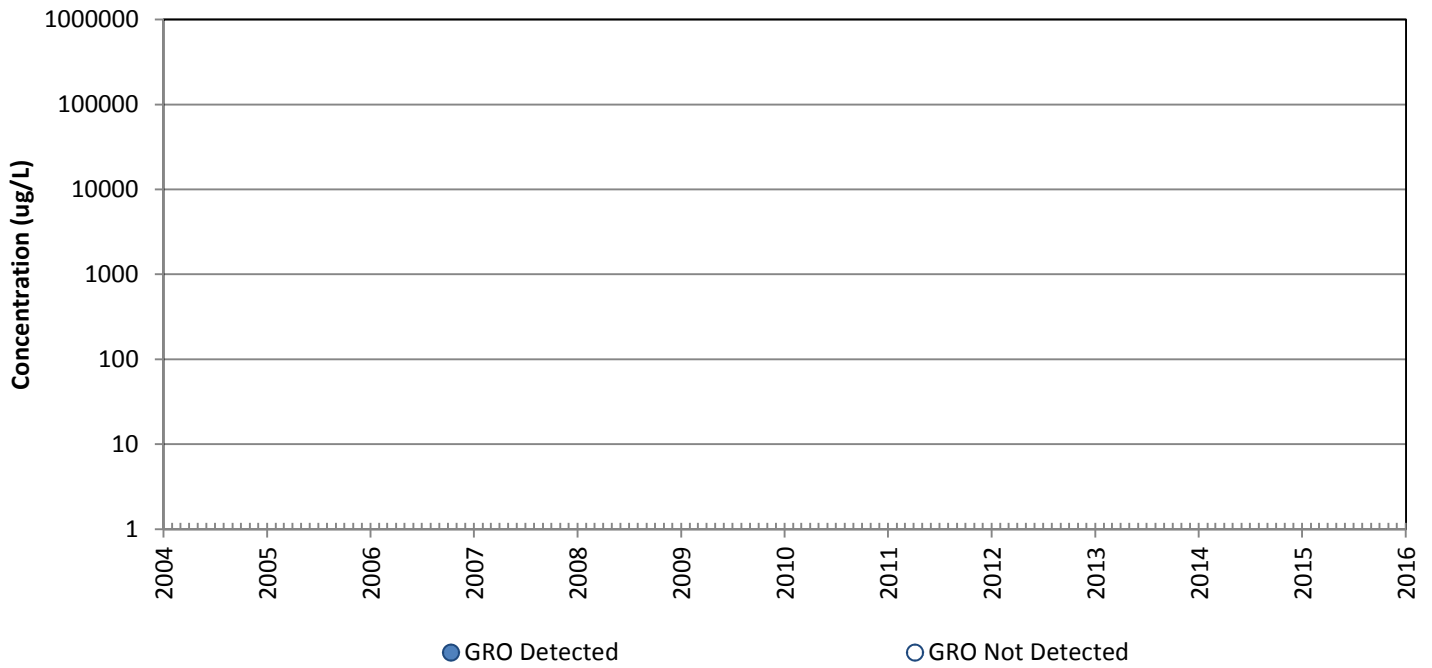


# MW-25

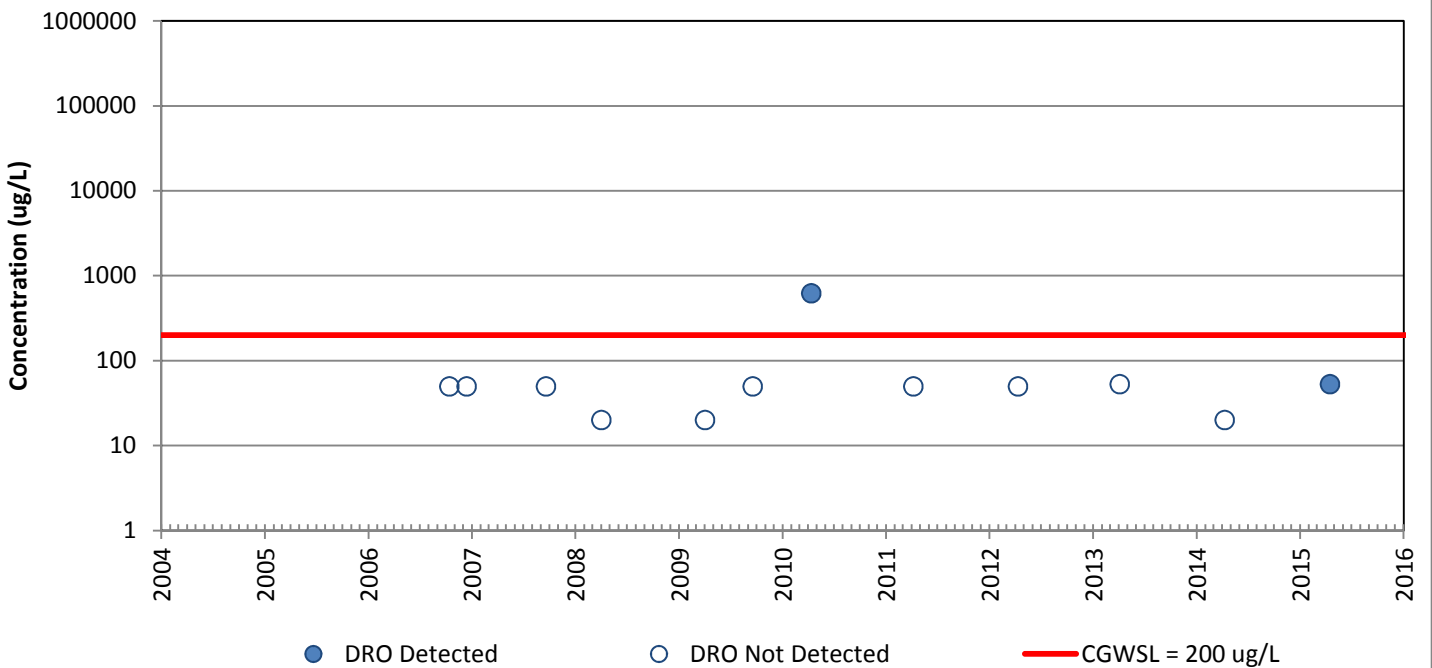


# MW-26

## GRO

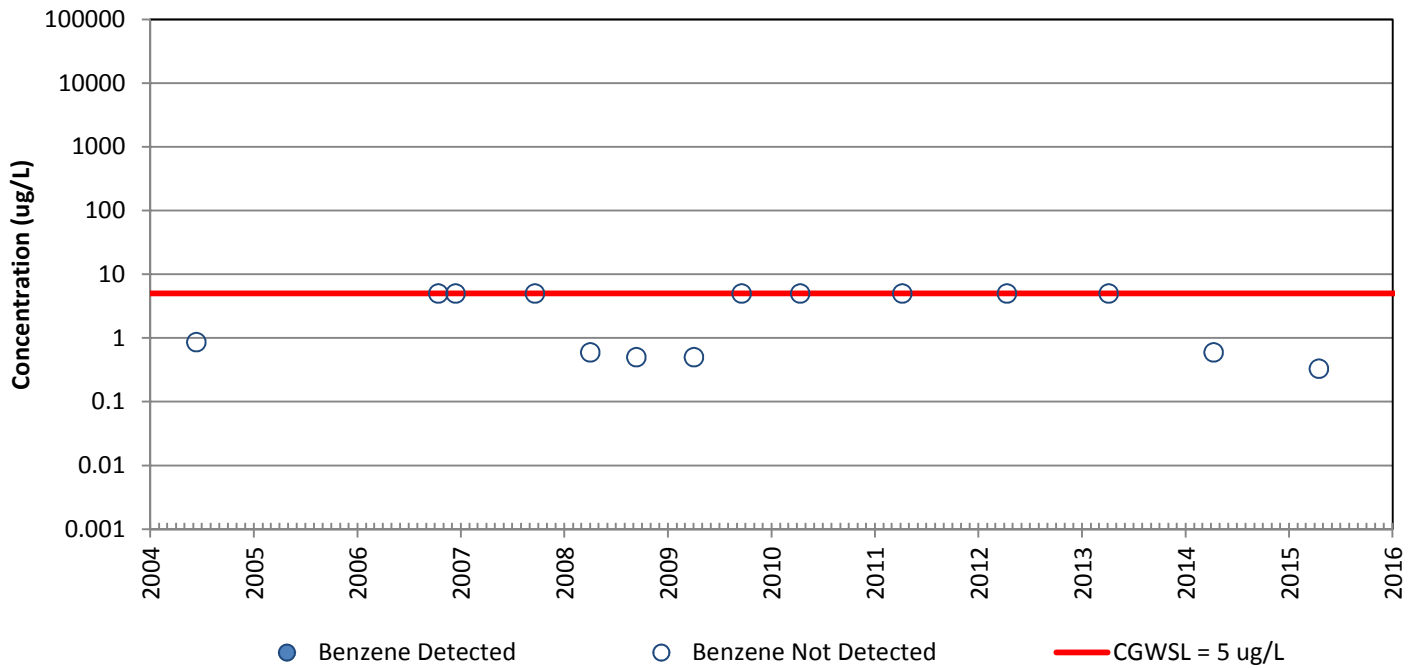


## DRO

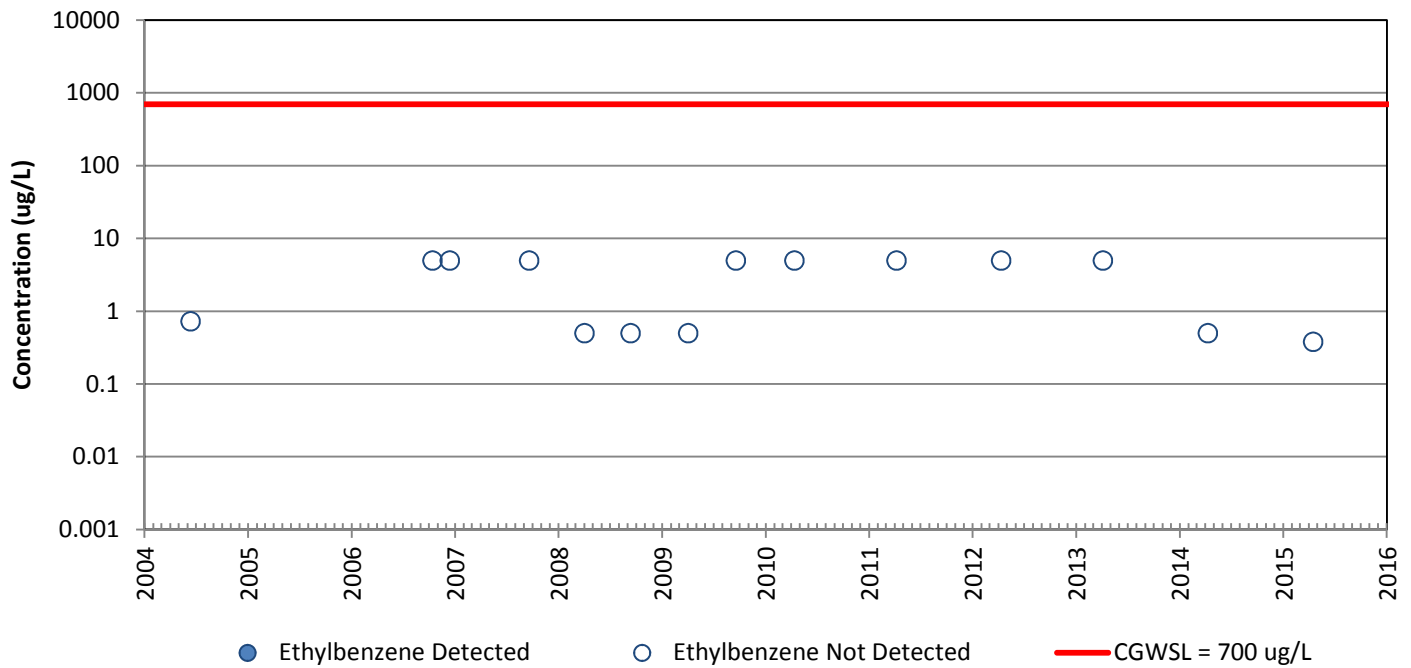


# MW-26

## Benzene

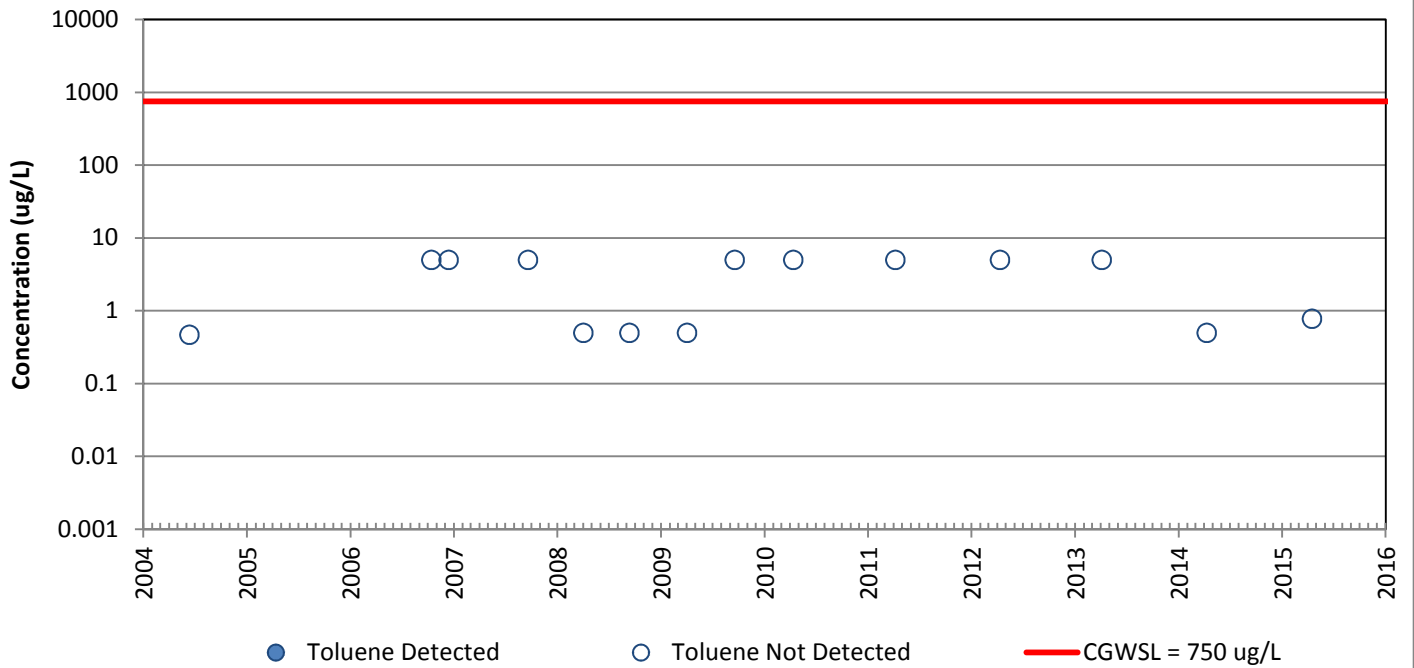


## Ethylbenzene

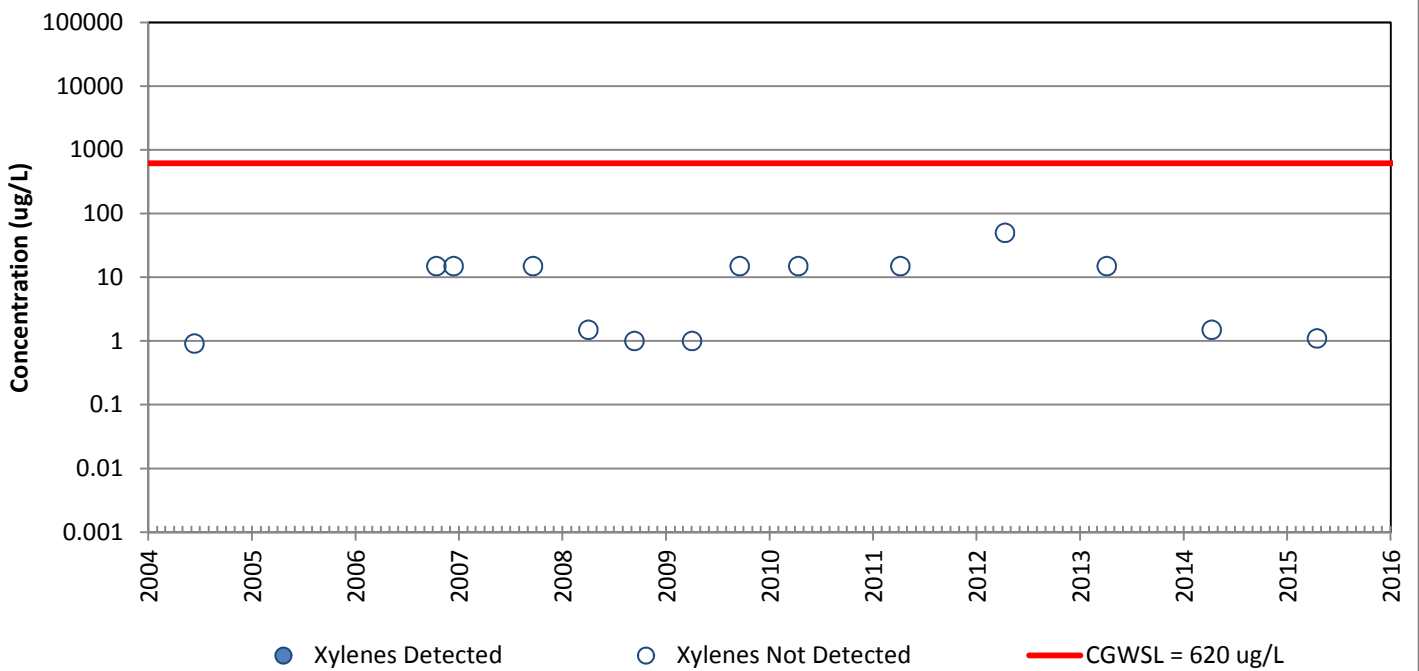


# MW-26

## Toluene

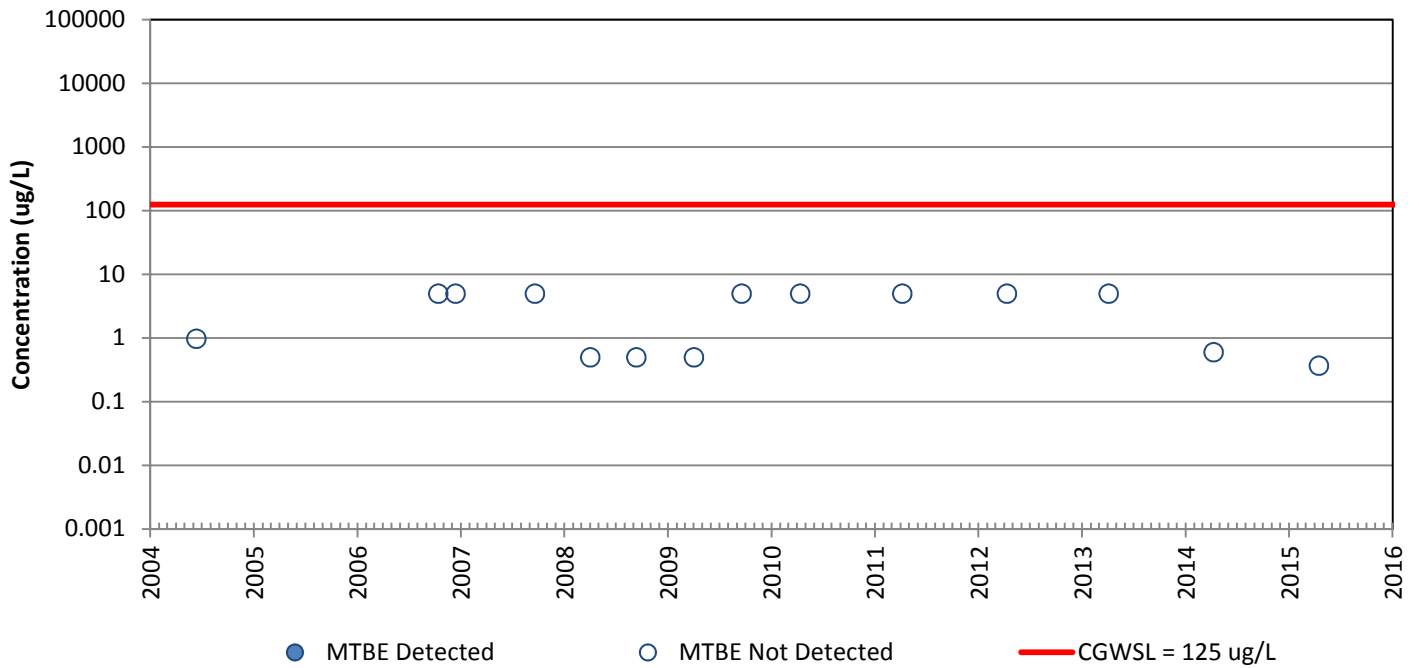


## Xylenes

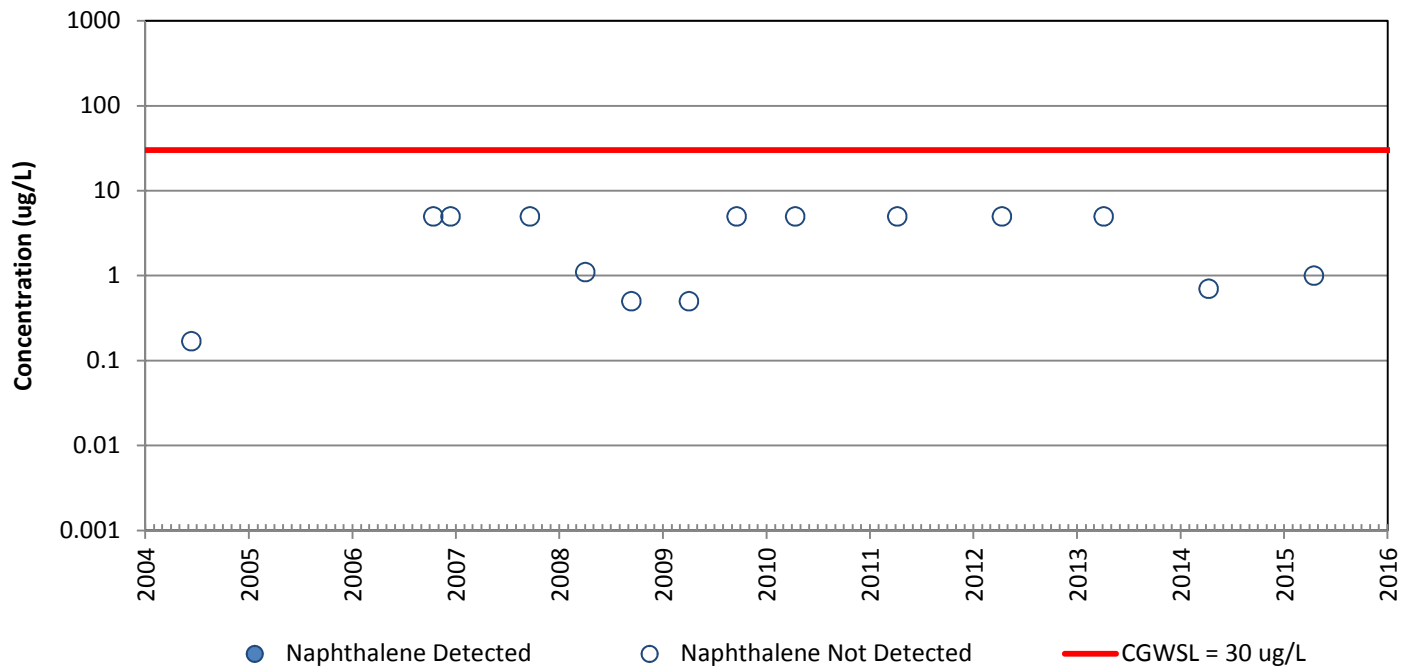


# MW-26

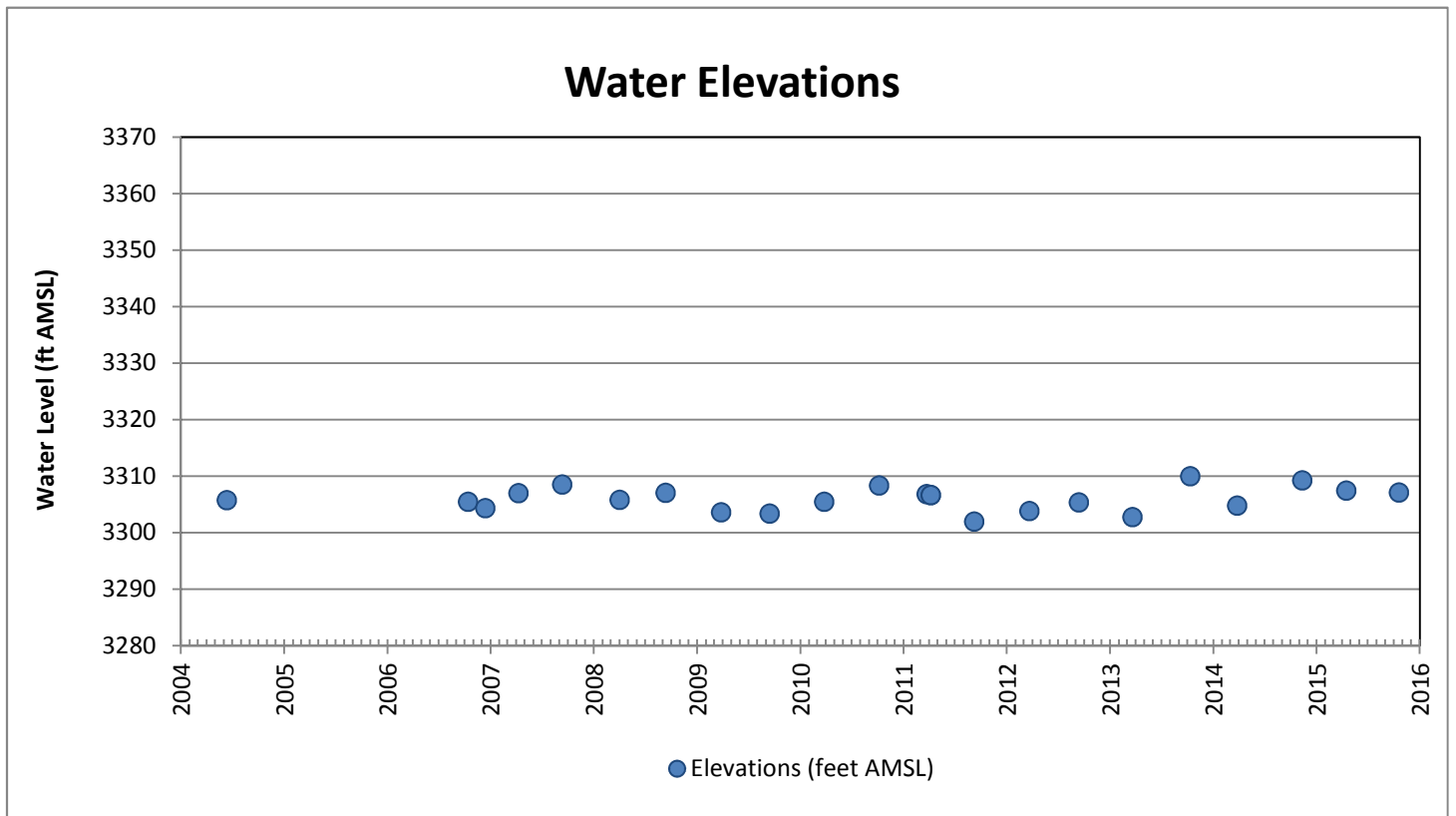
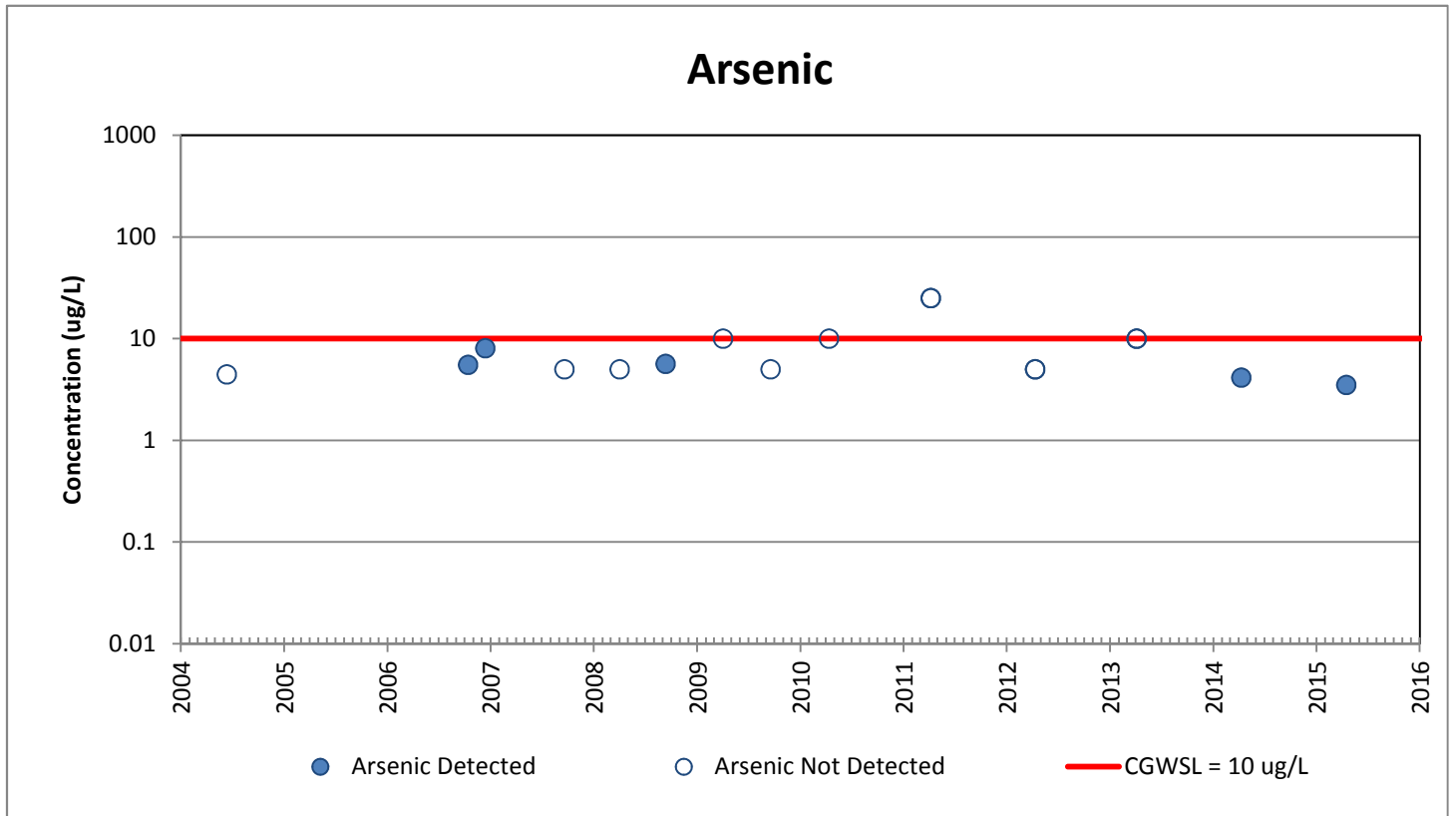
## MTBE



## Naphthalene

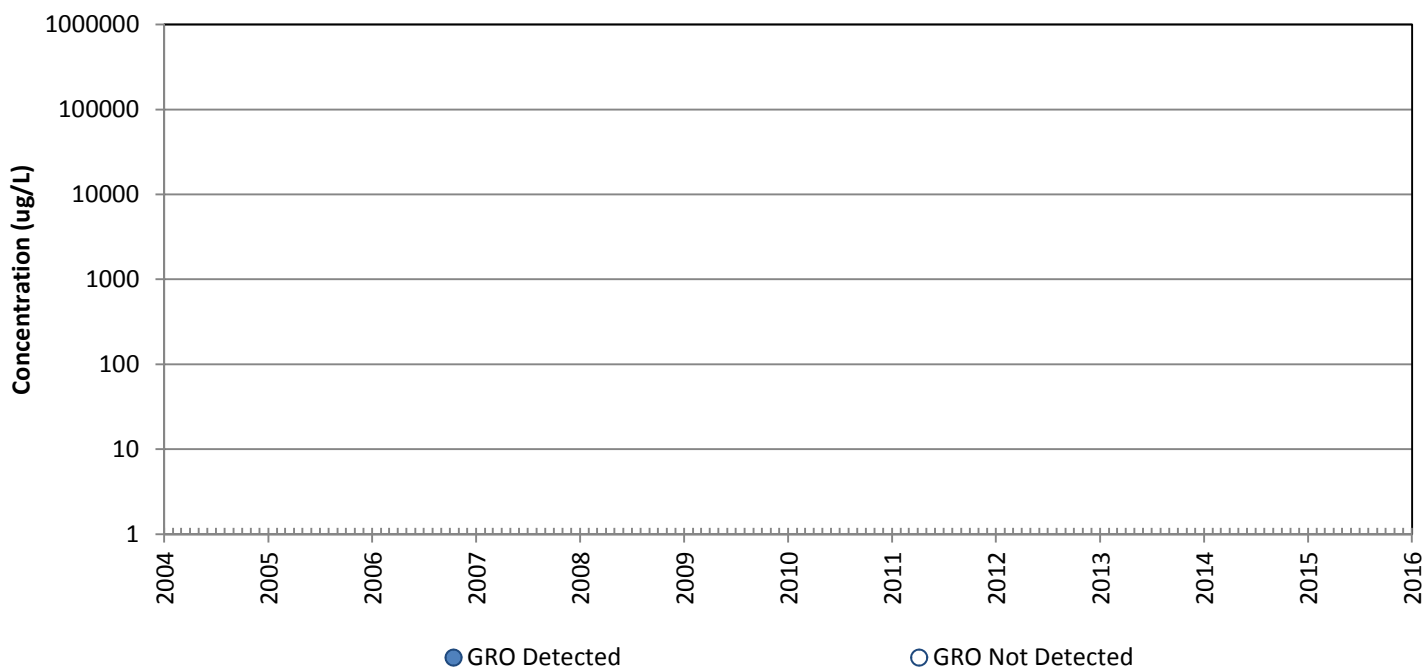


# MW-26

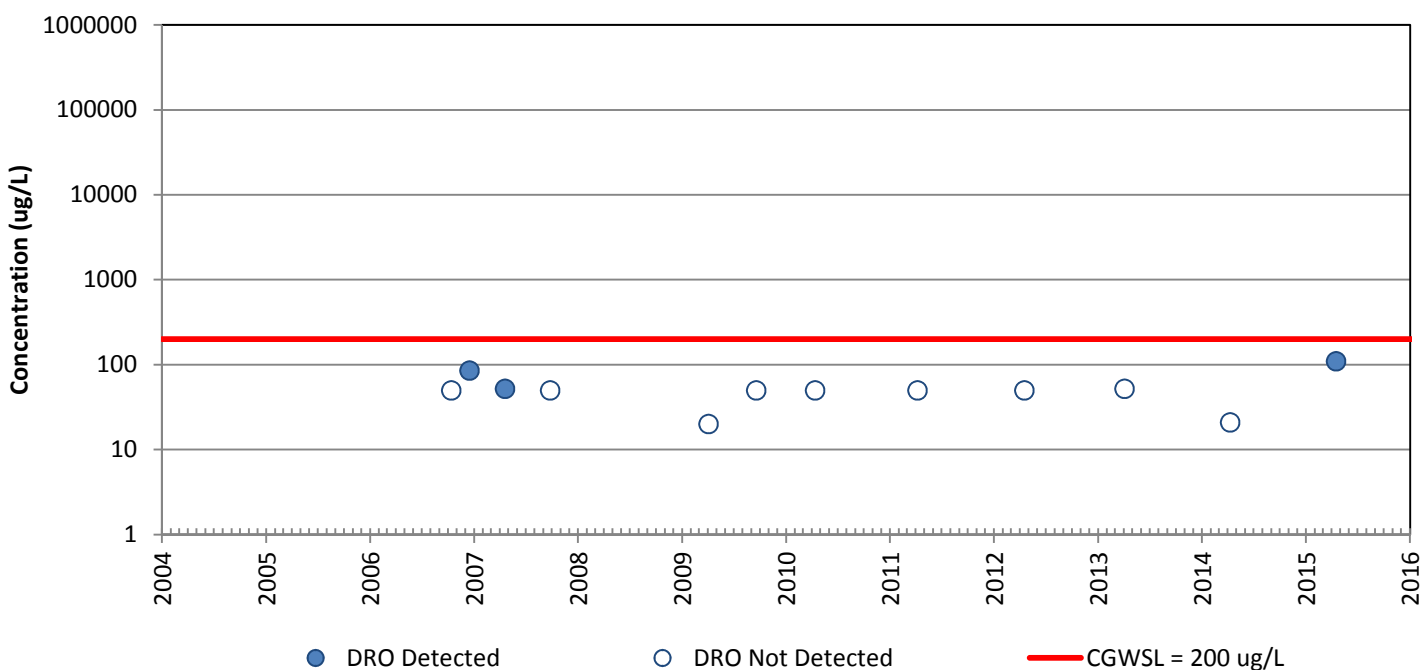


# MW-27

## GRO

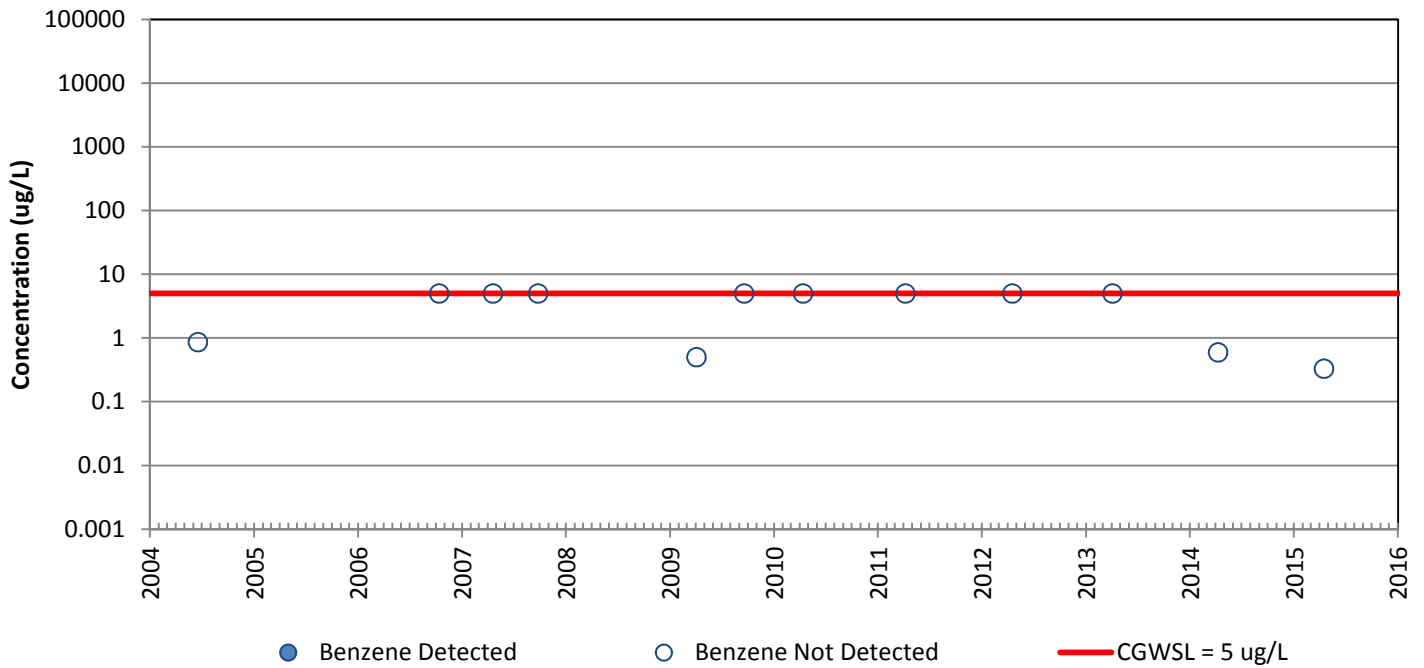


## DRO

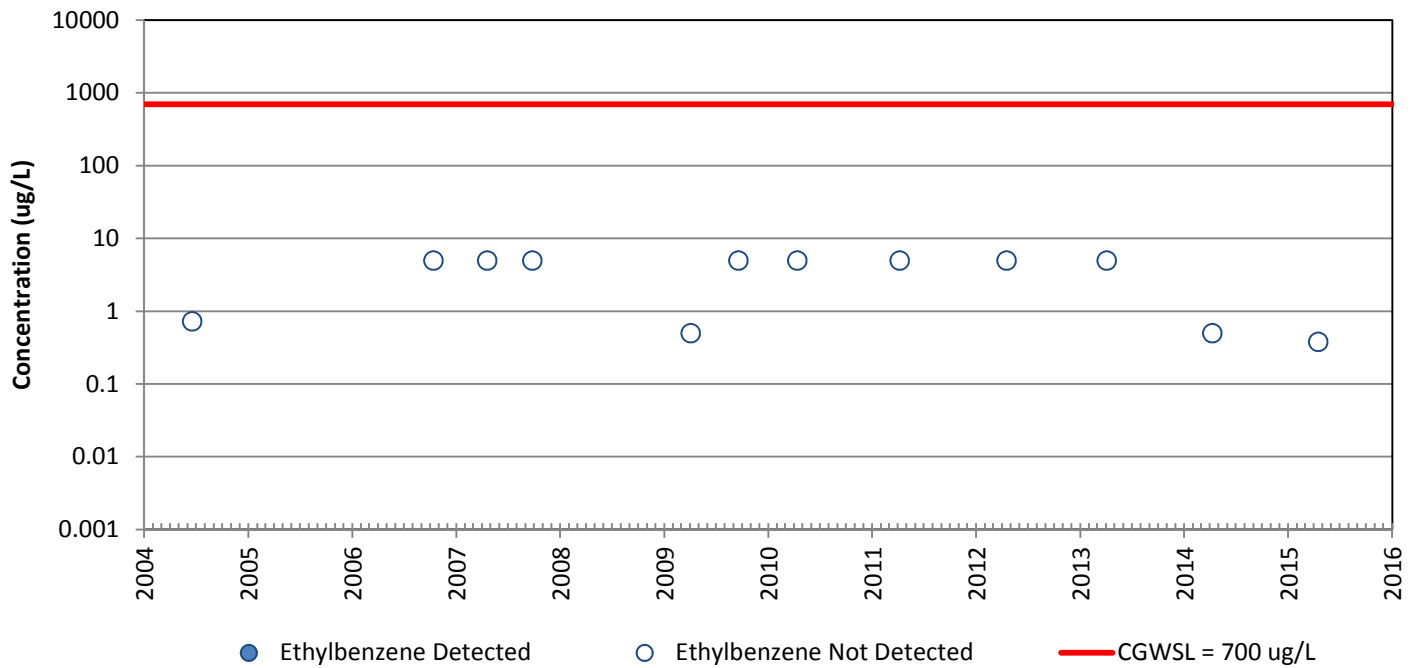


# MW-27

## Benzene

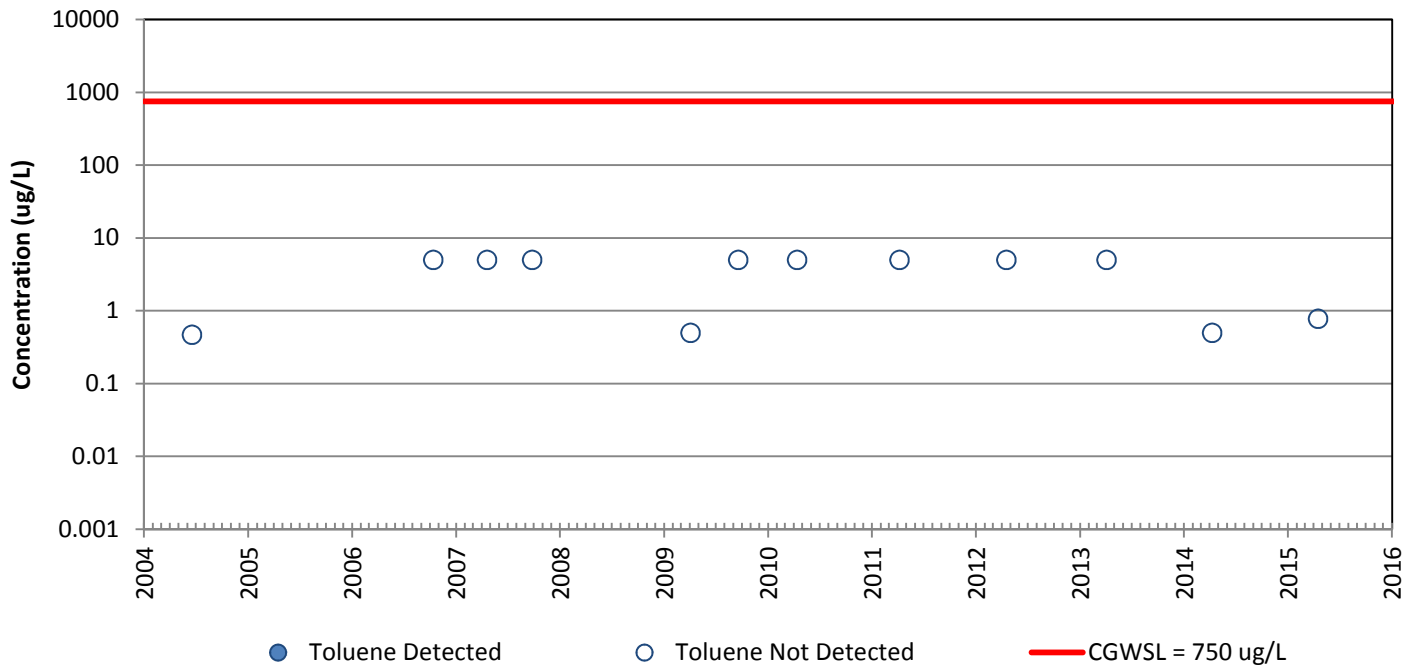


## Ethylbenzene

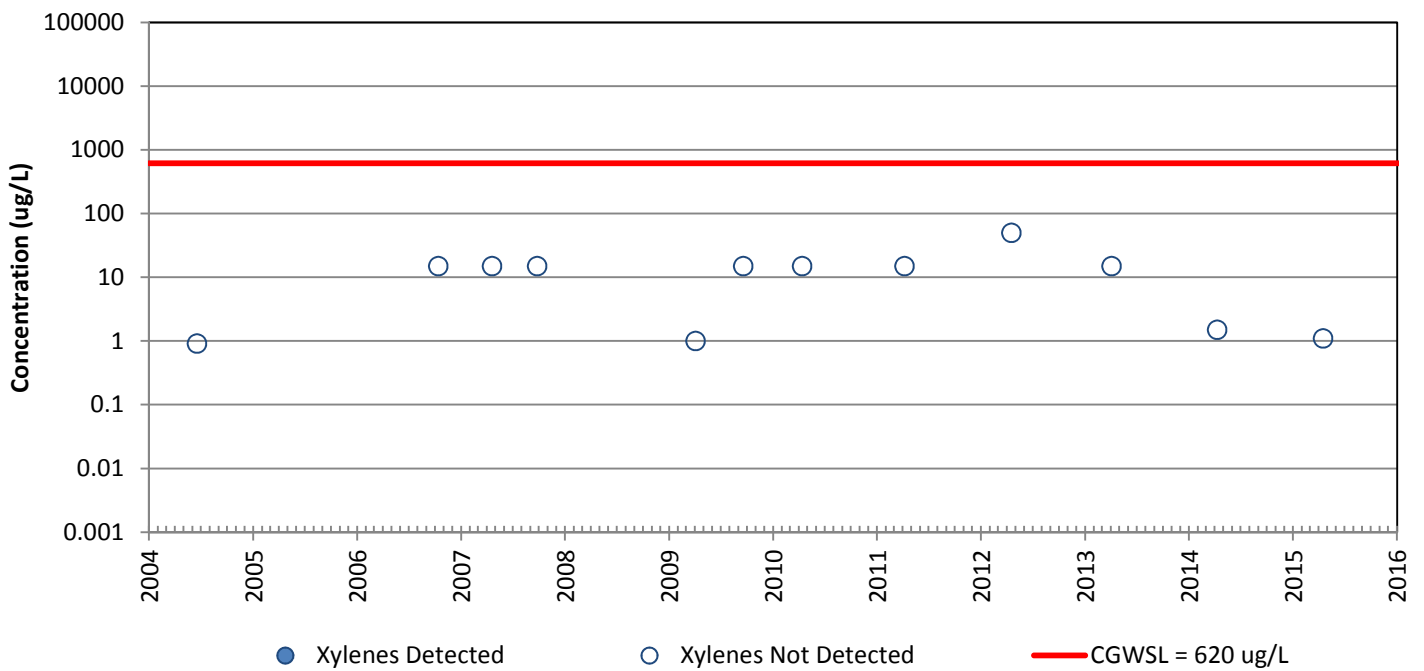


# MW-27

## Toluene

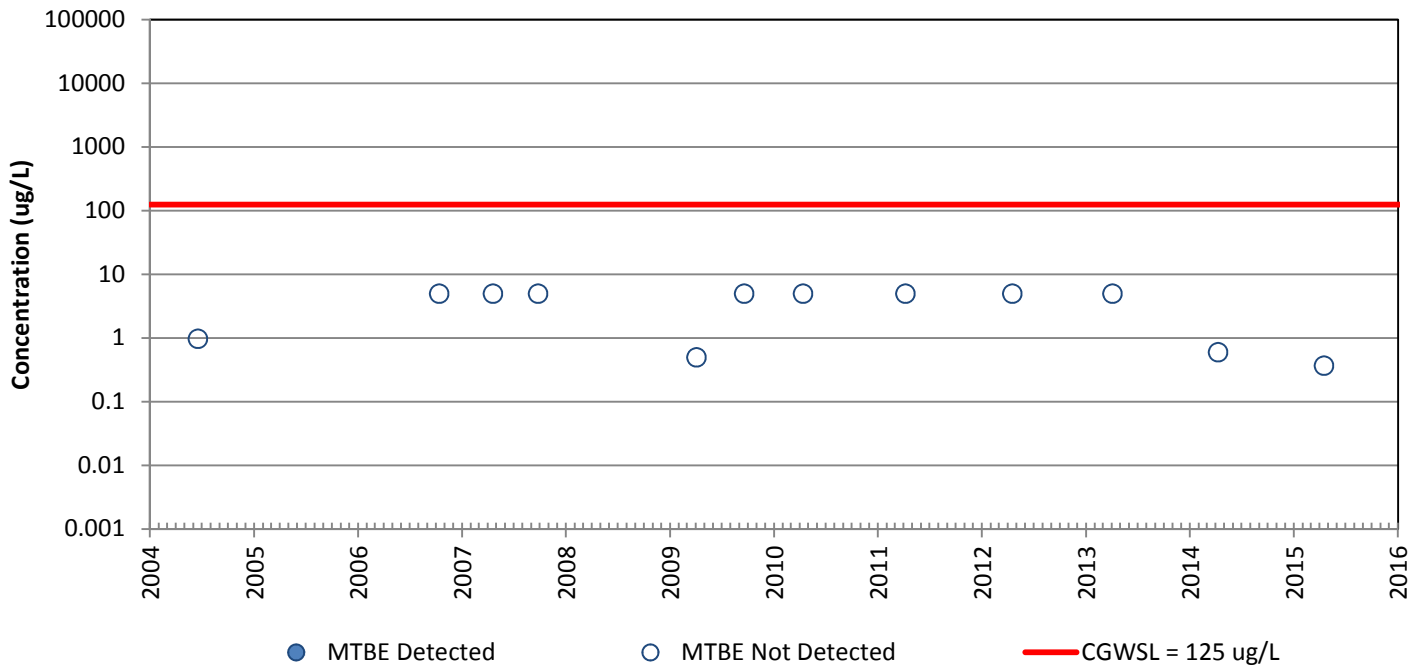


## Xylenes

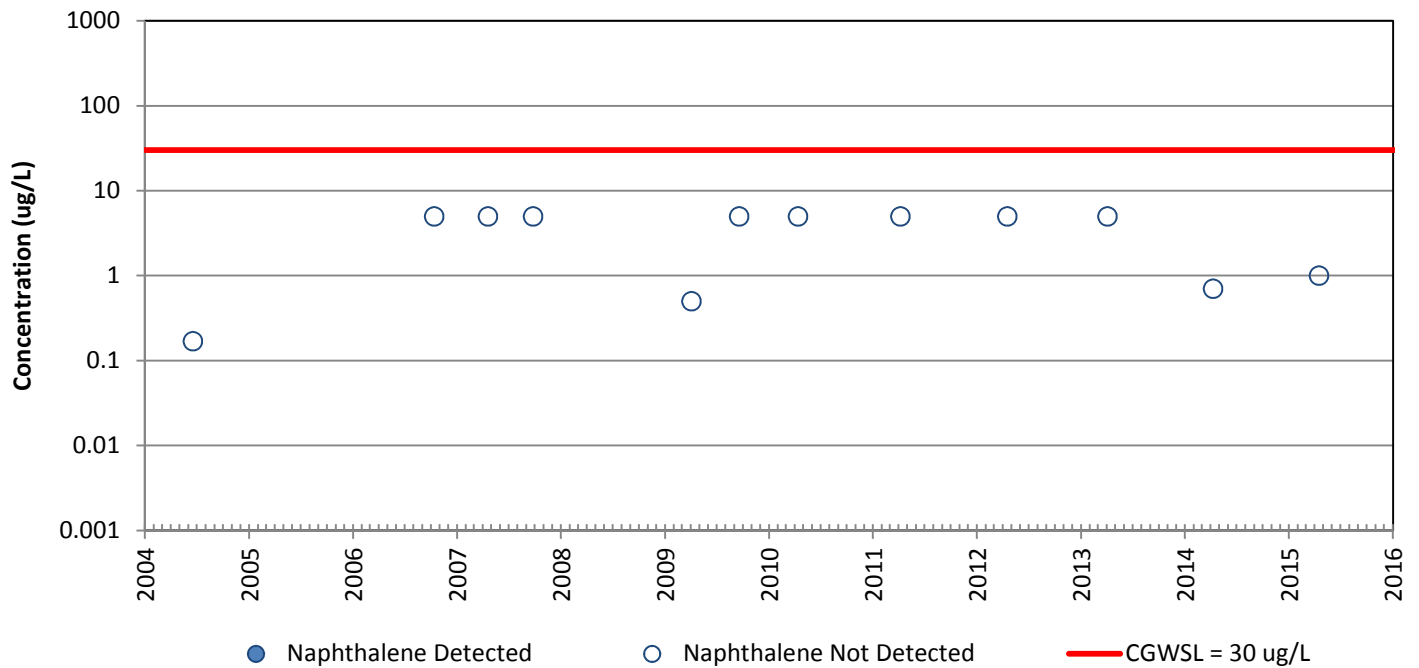


# MW-27

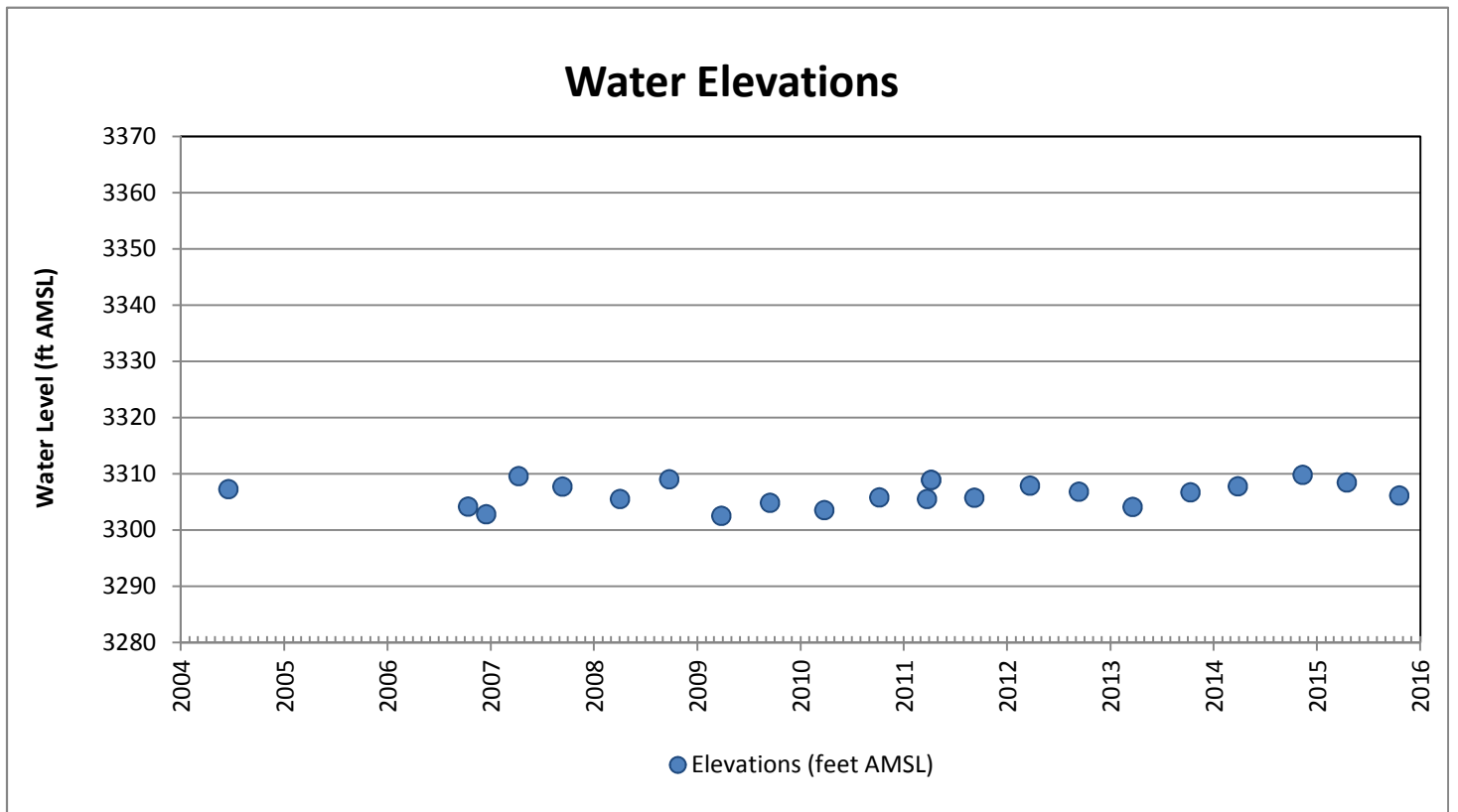
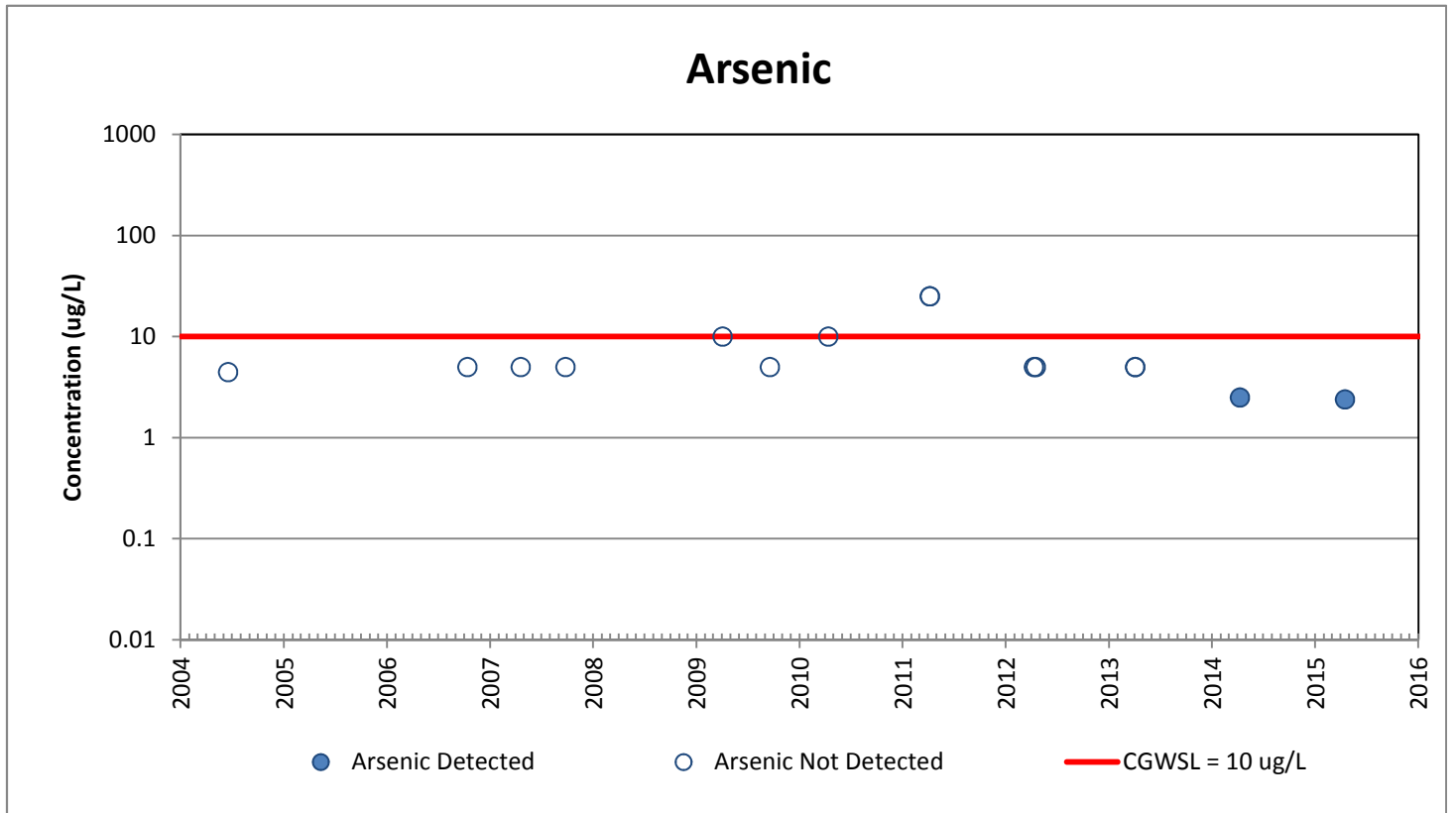
## MTBE



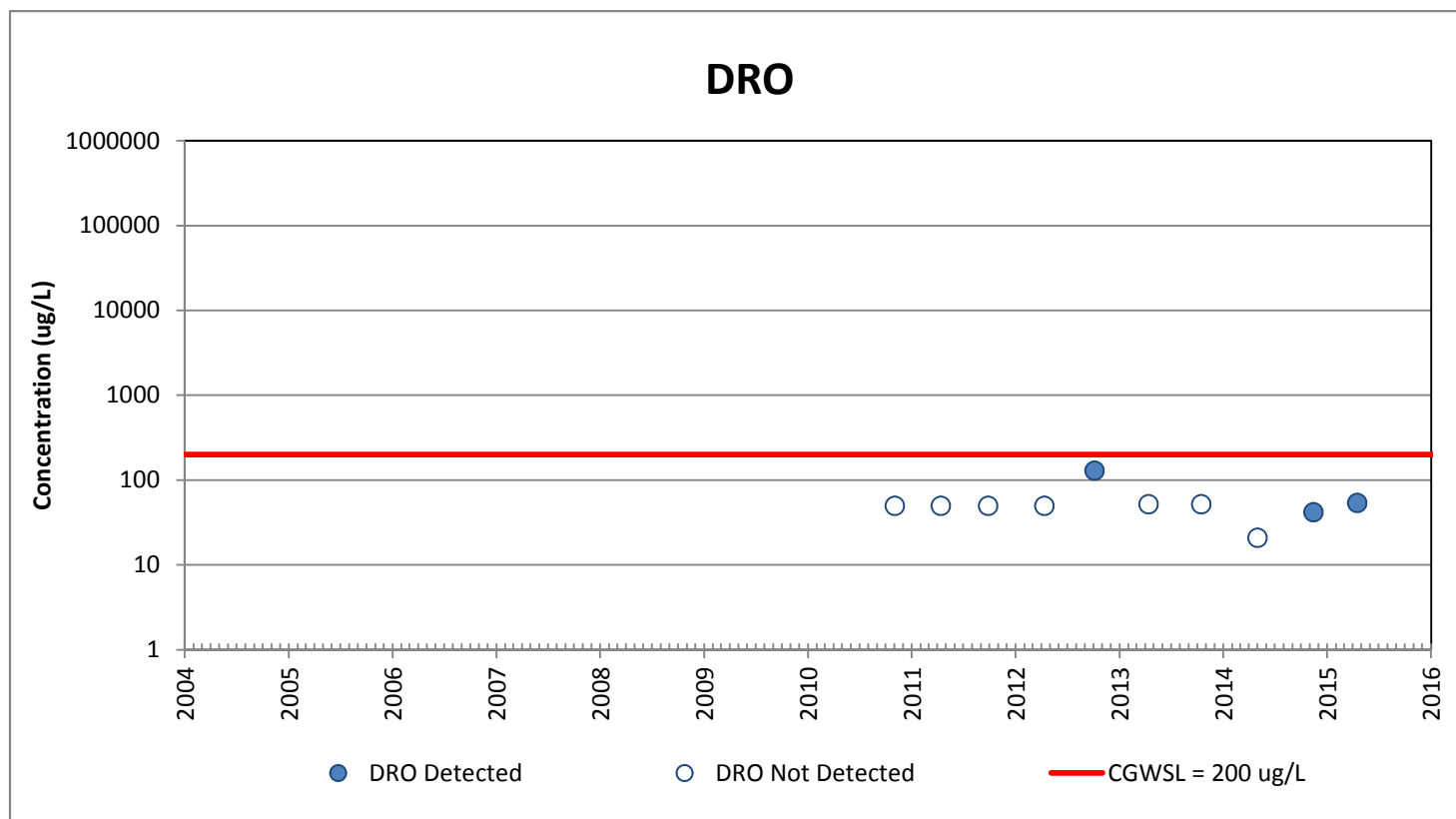
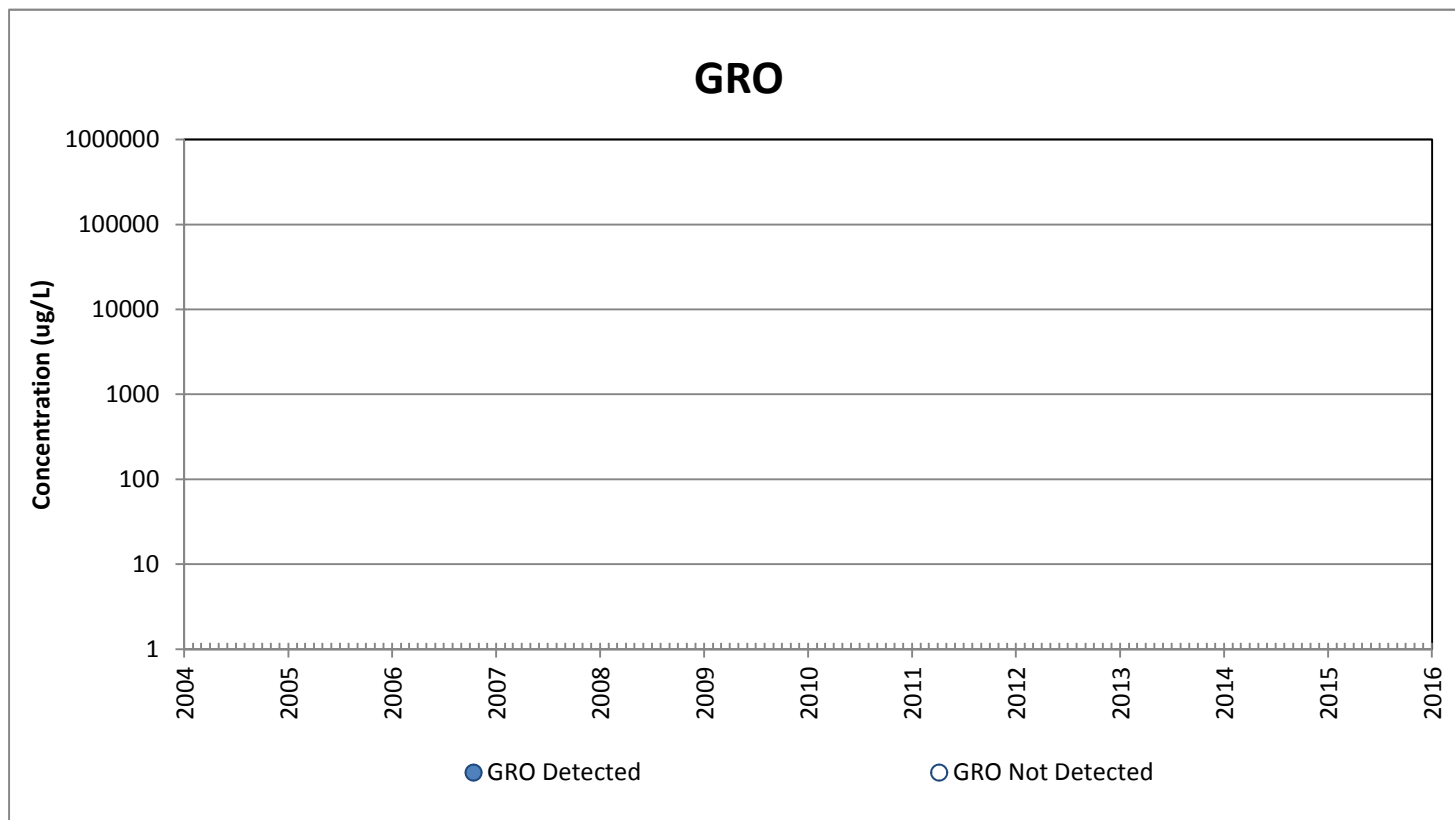
## Naphthalene



# MW-27

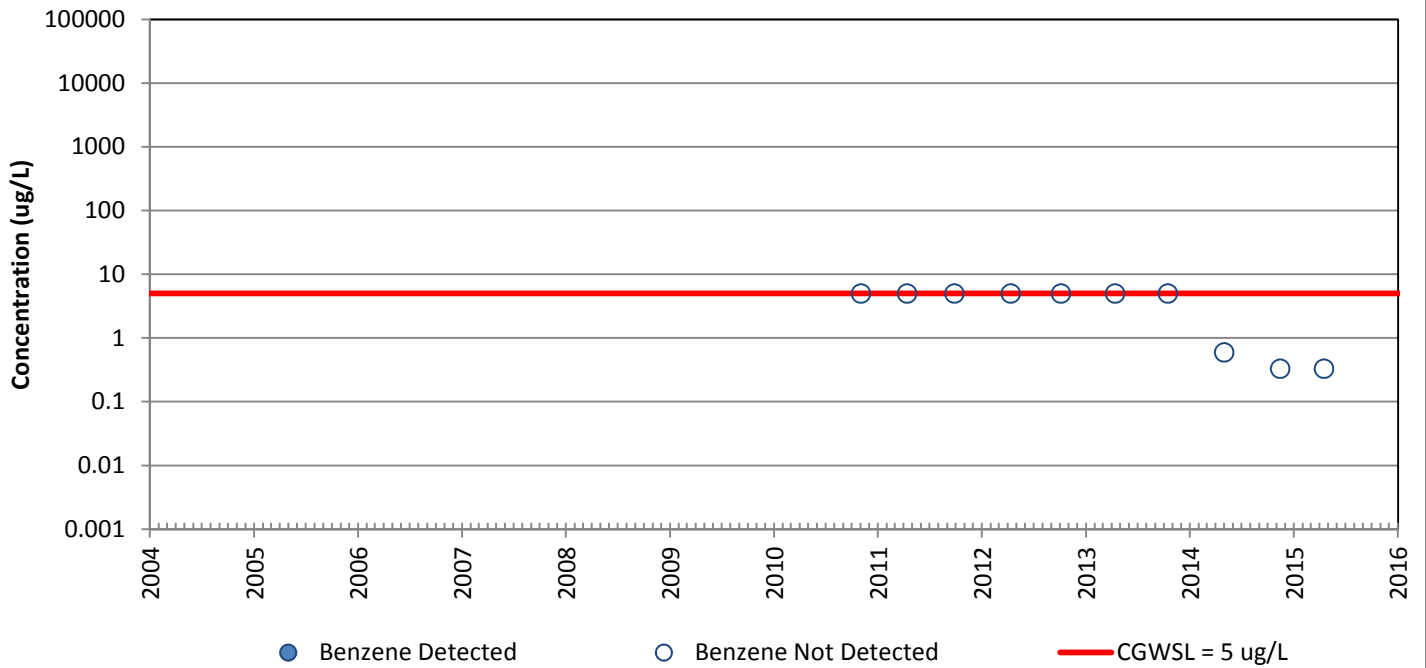


# MW-46 & MW-46R

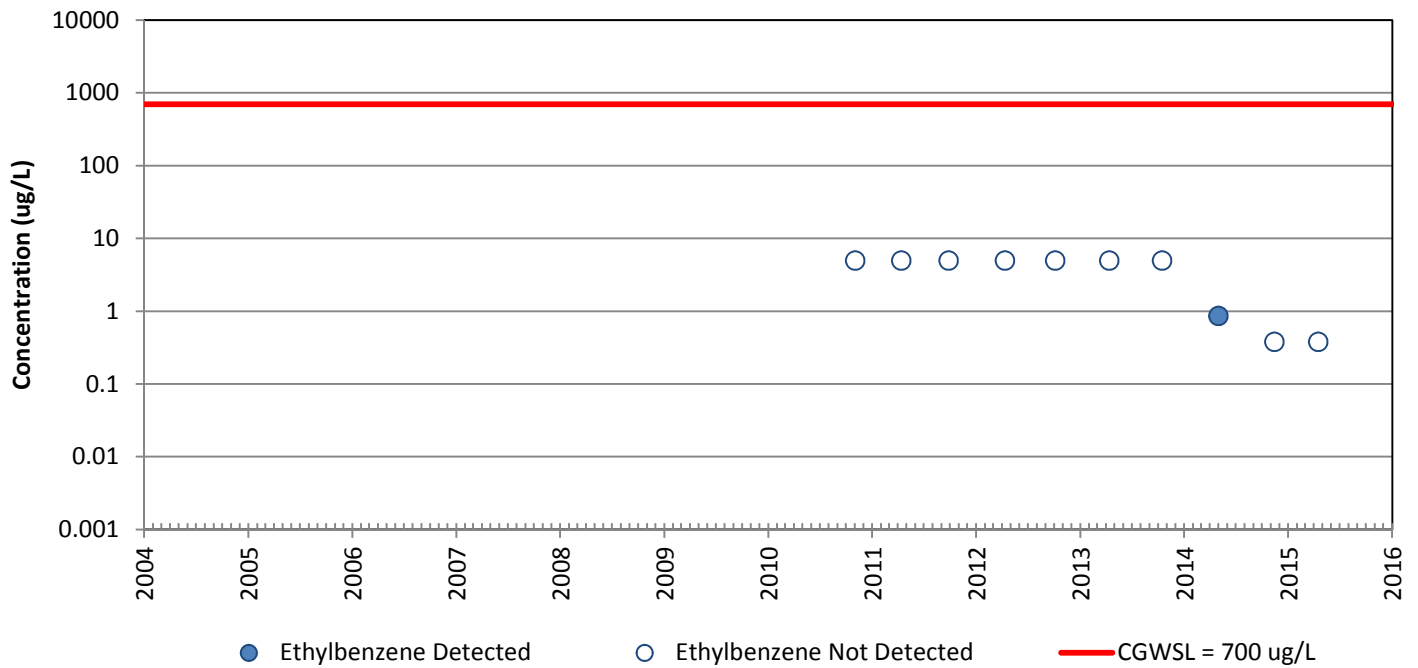


# MW-46 & MW-46R

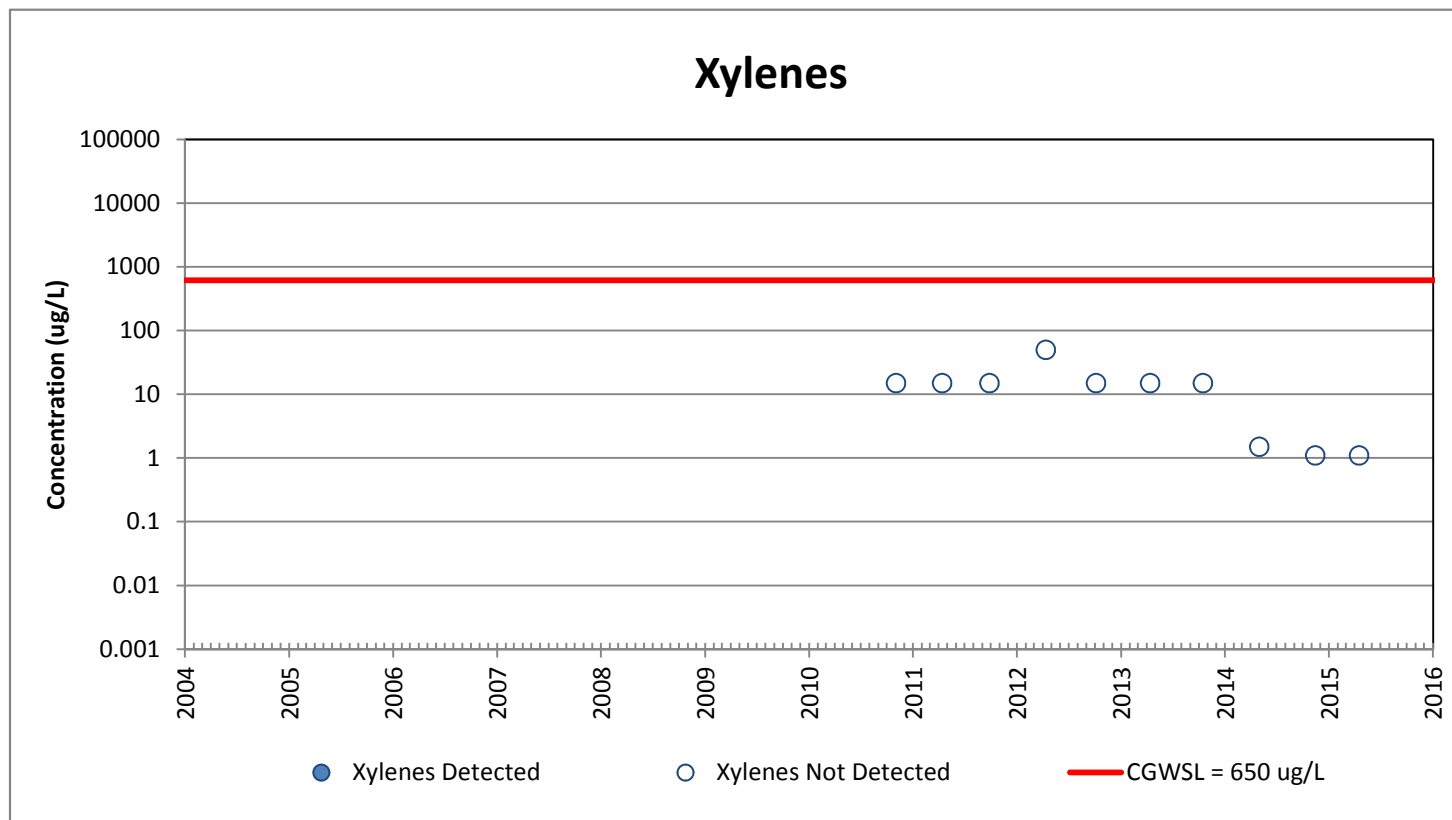
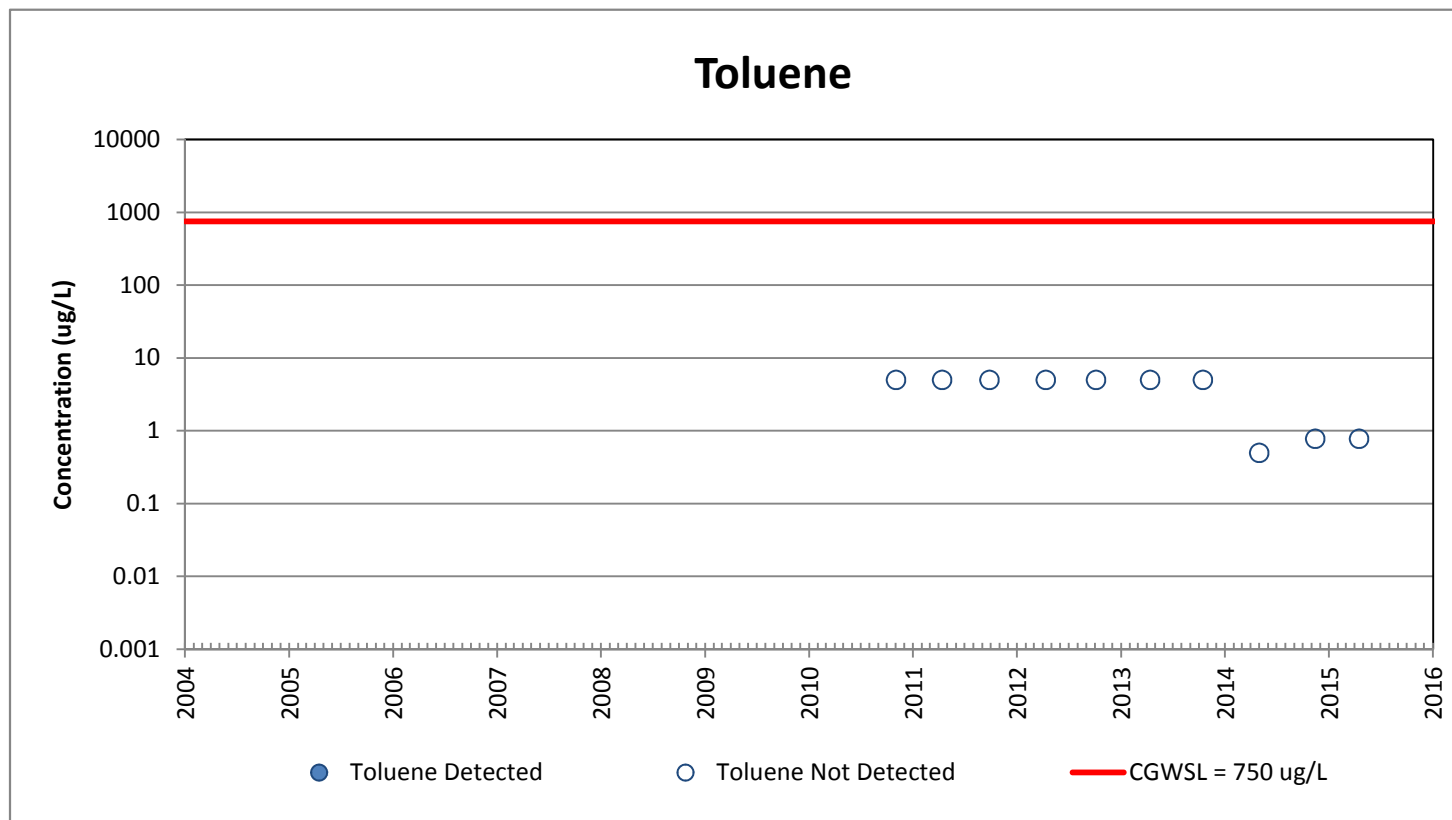
## Benzene



## Ethylbenzene

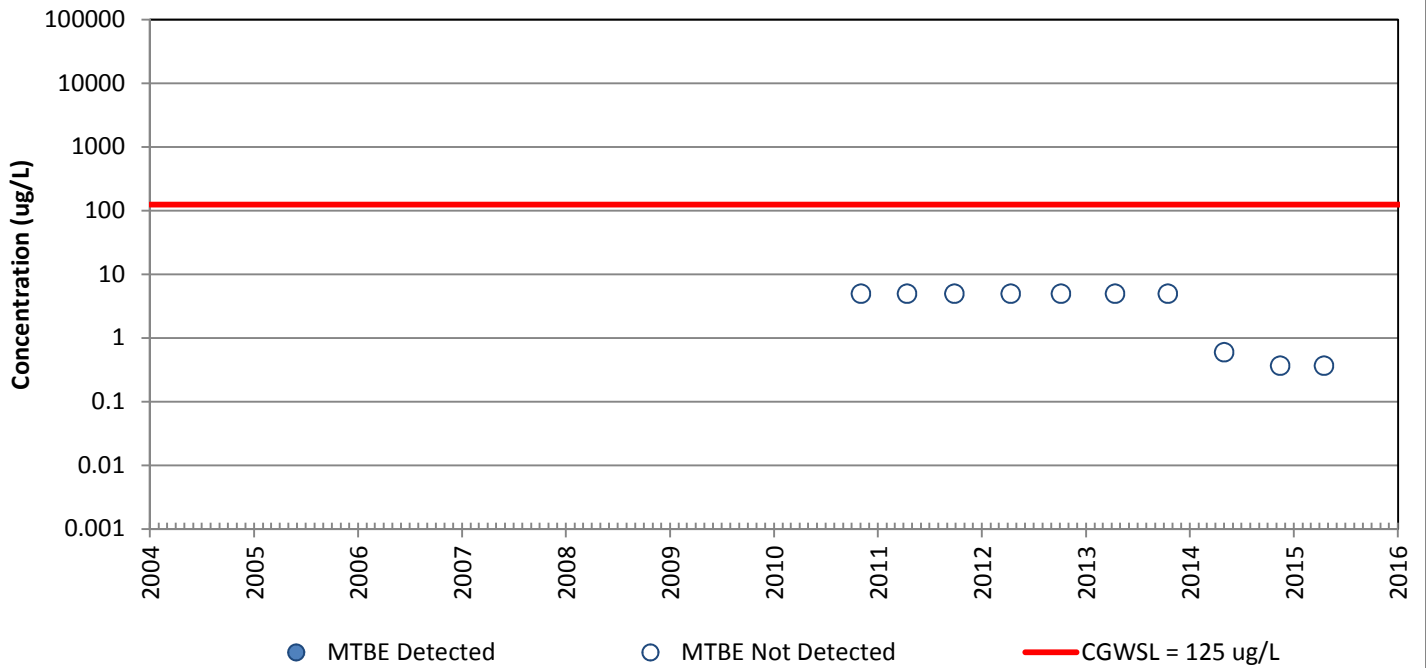


# MW-46 & MW-46R

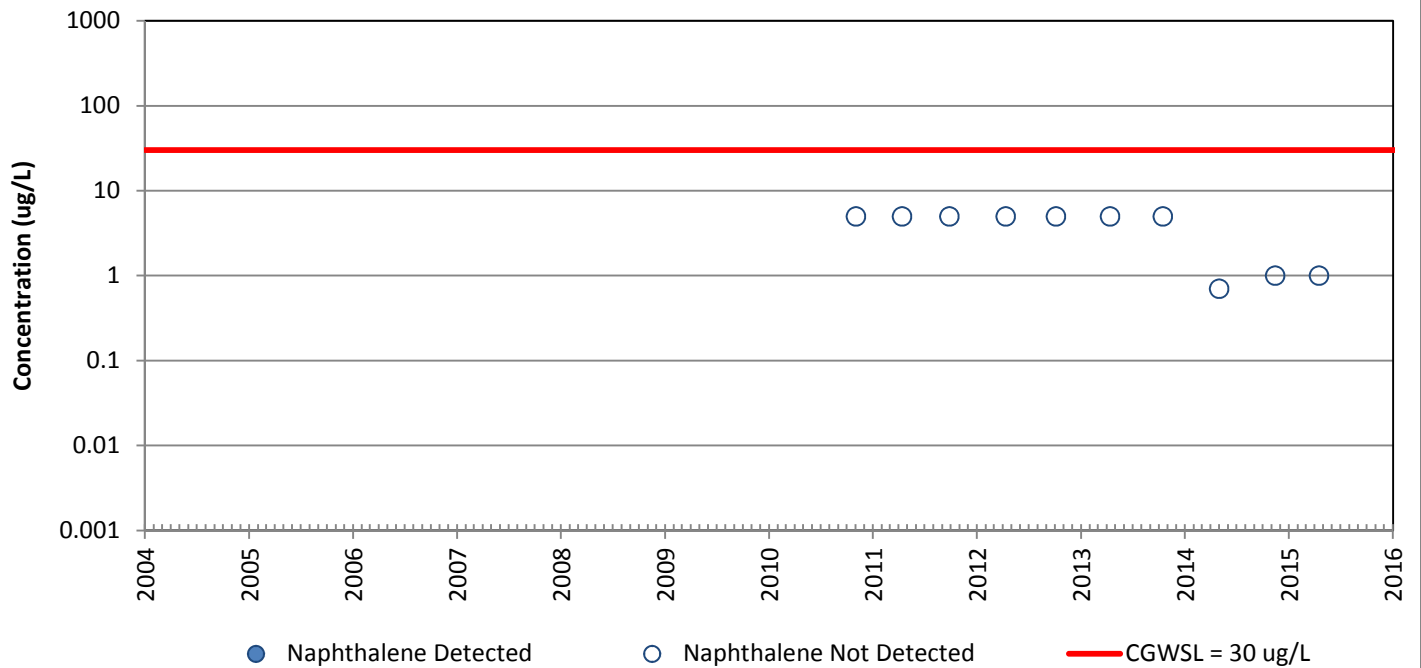


# MW-46 & MW-46R

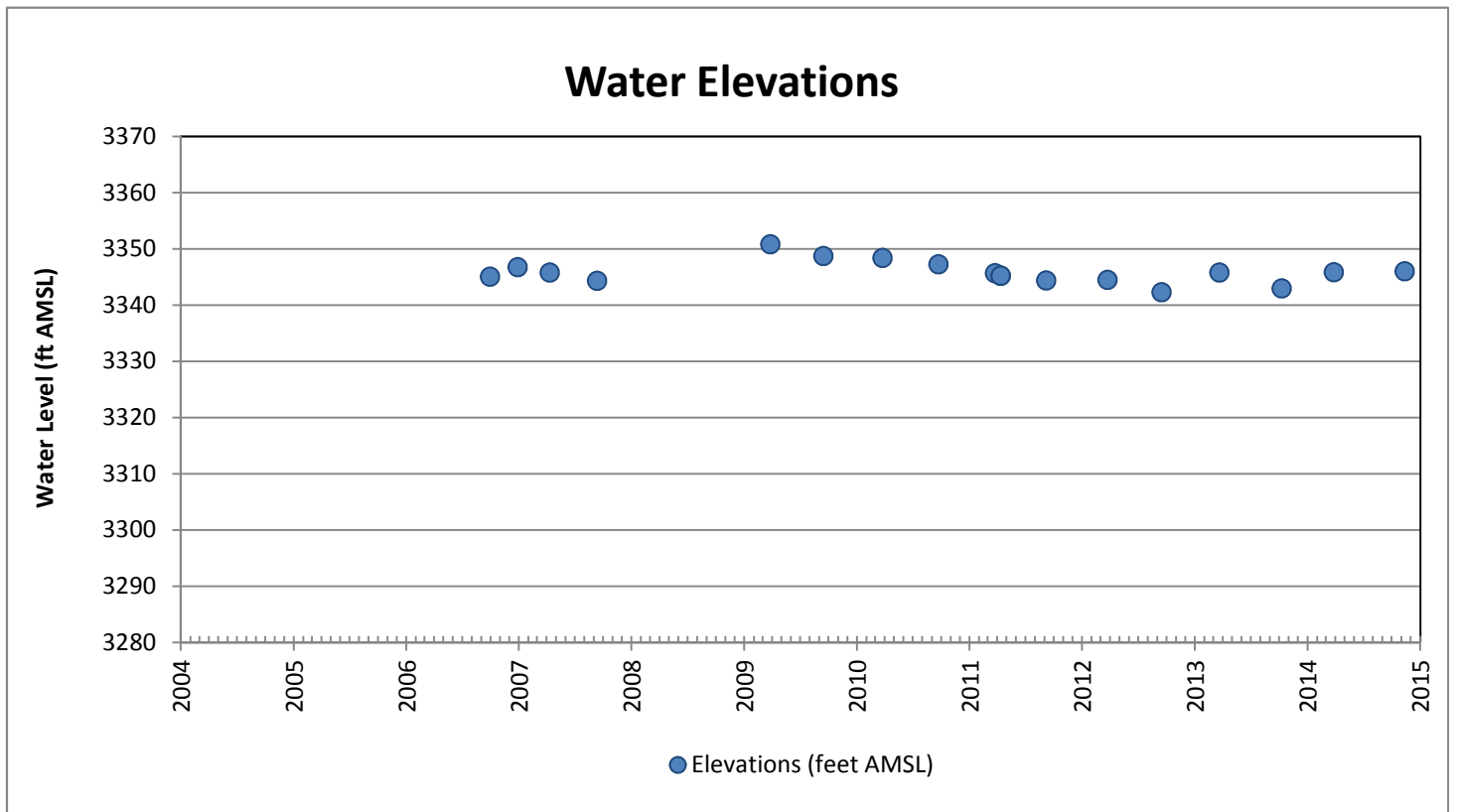
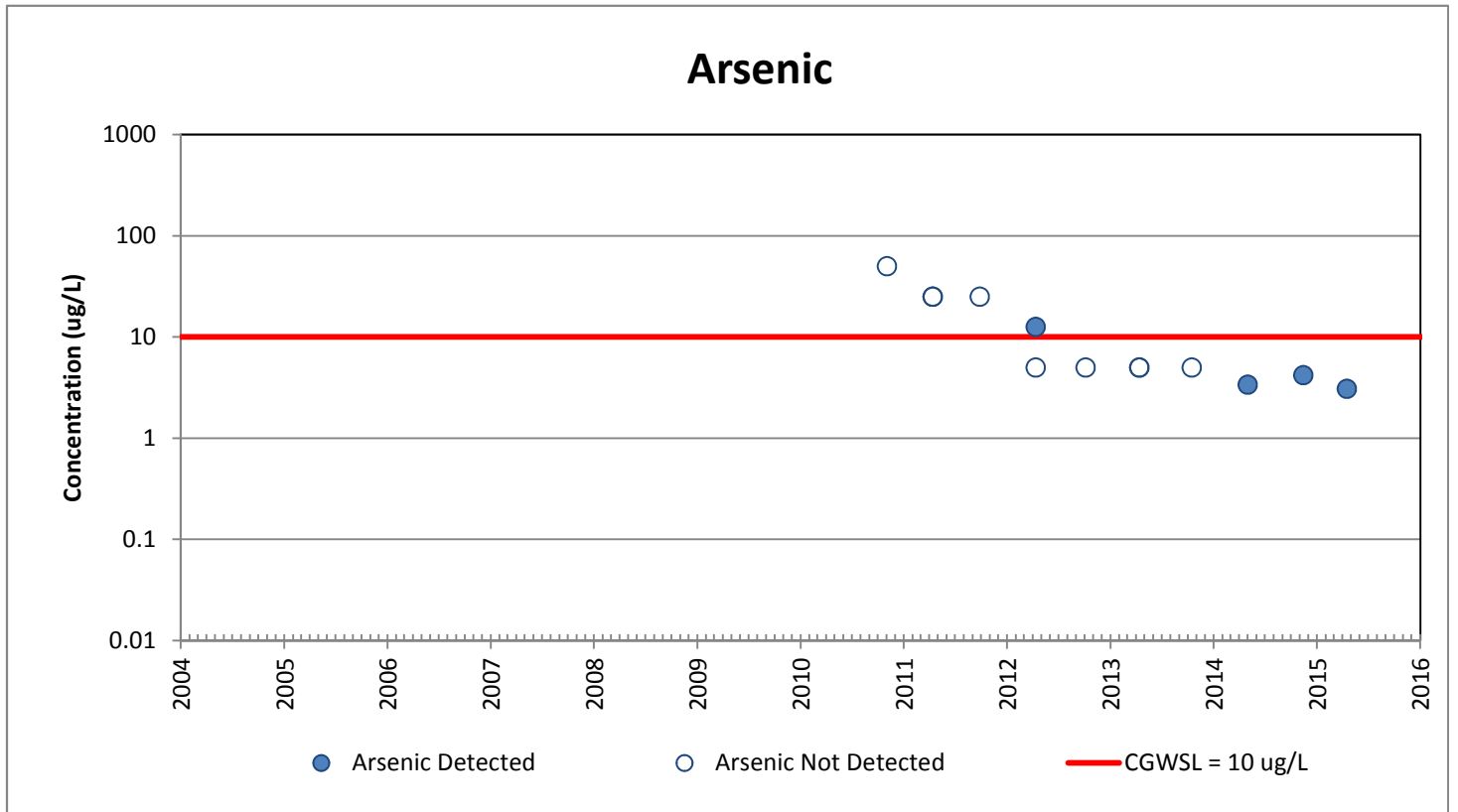
## MTBE



## Naphthalene

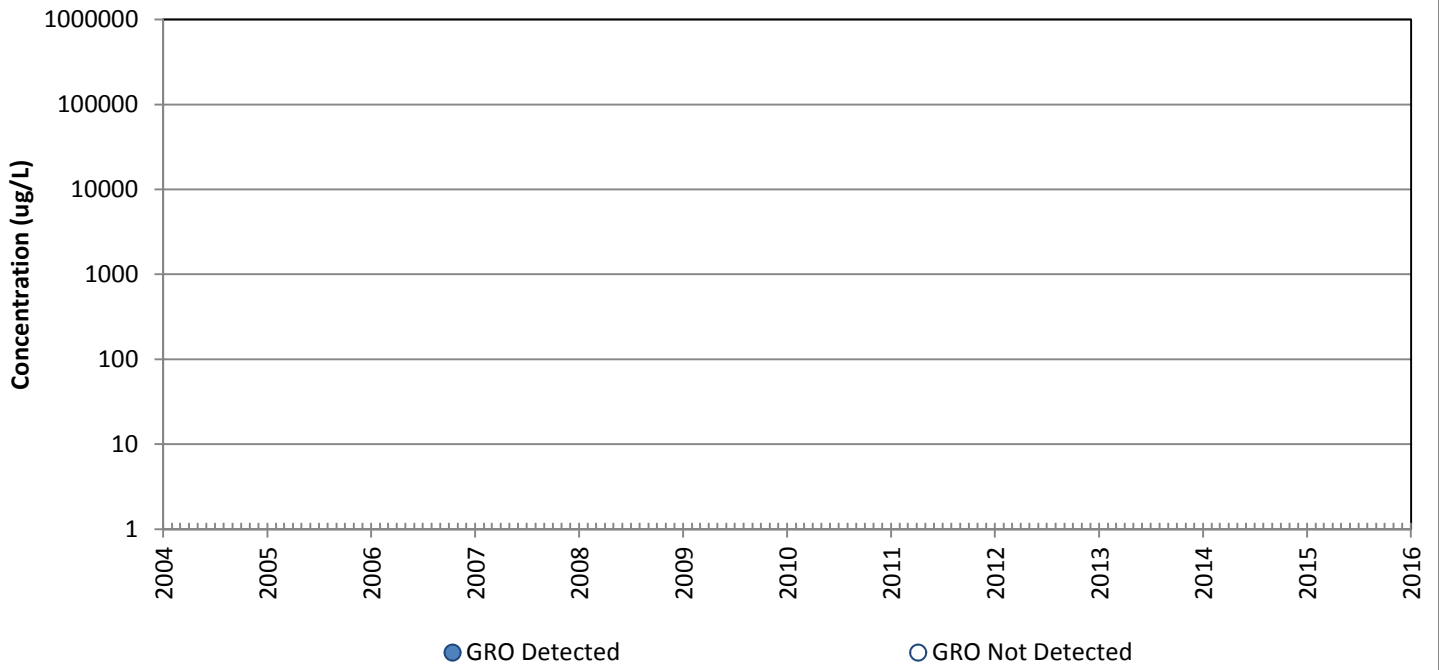


# MW-46 & MW-46R

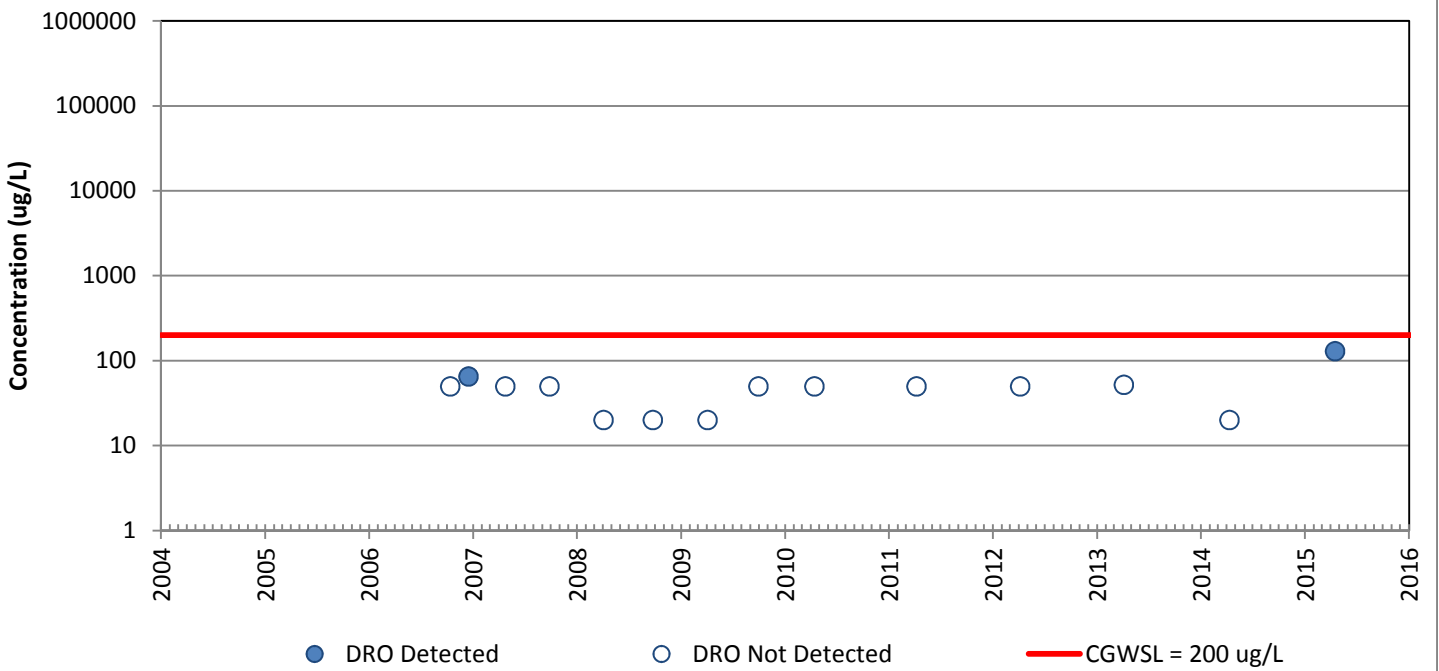


# MW-68

## GRO

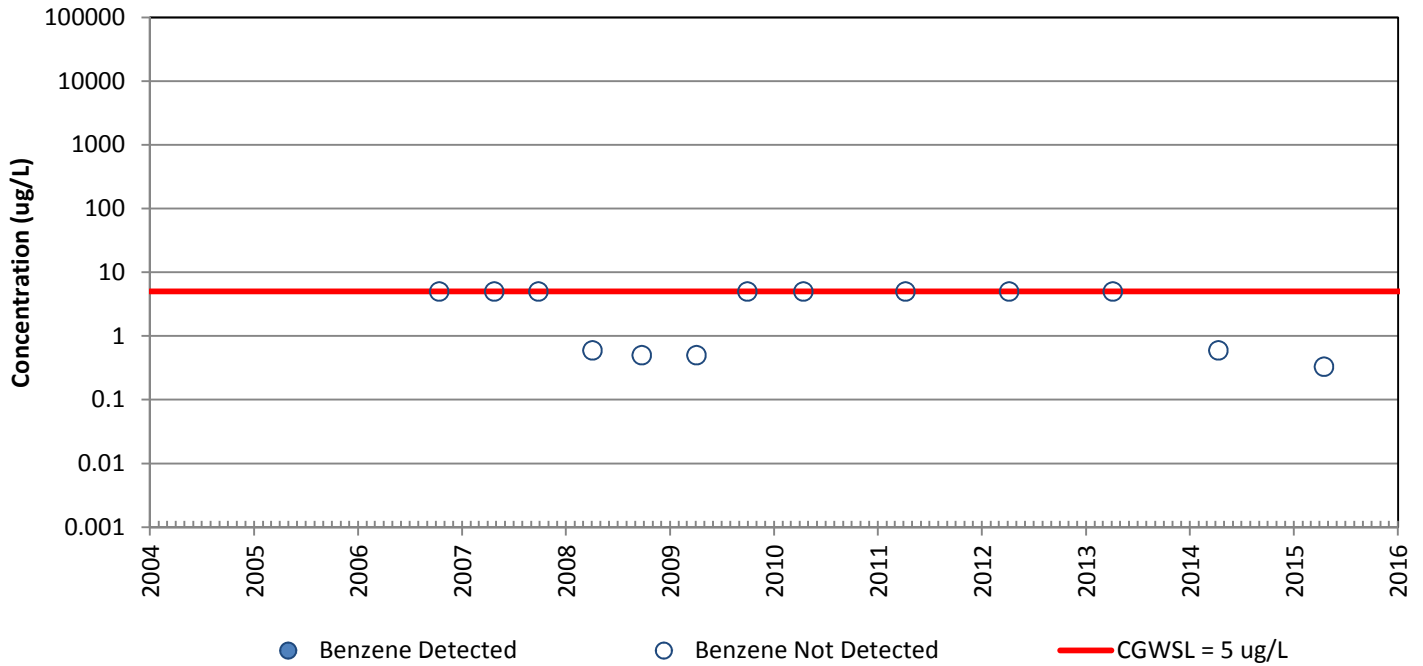


## DRO

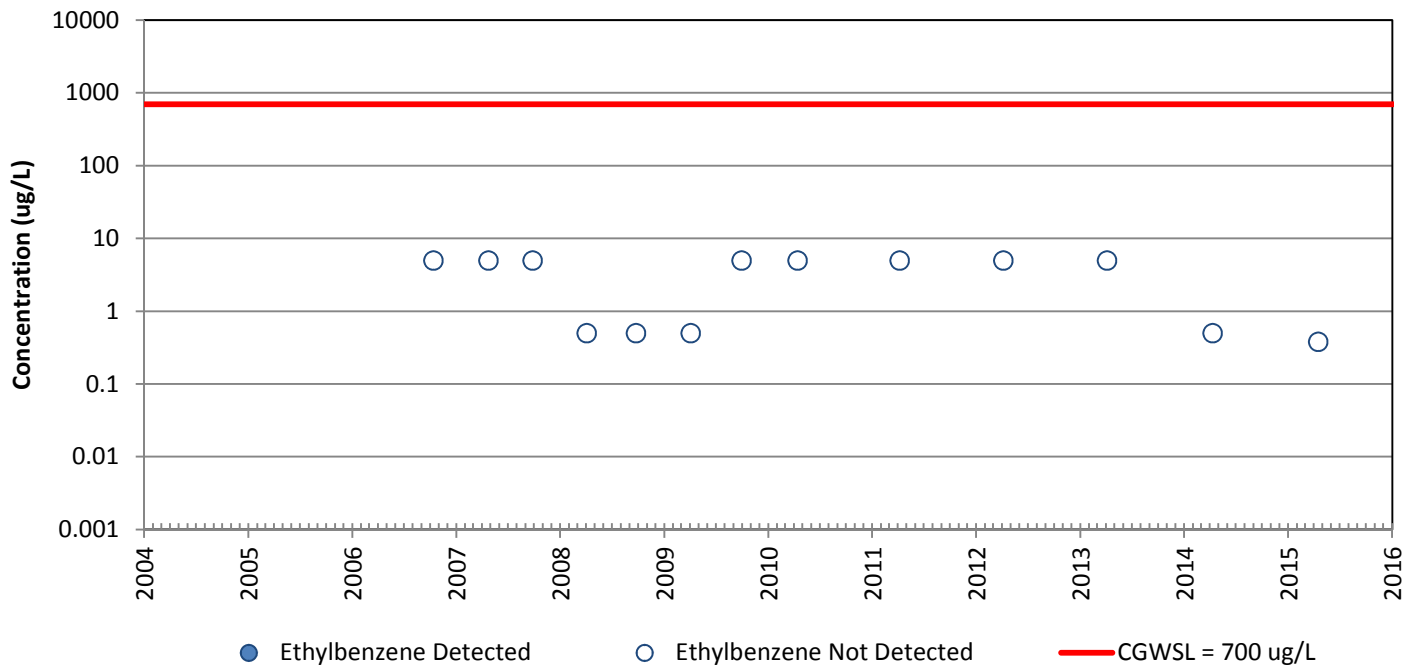


# MW-68

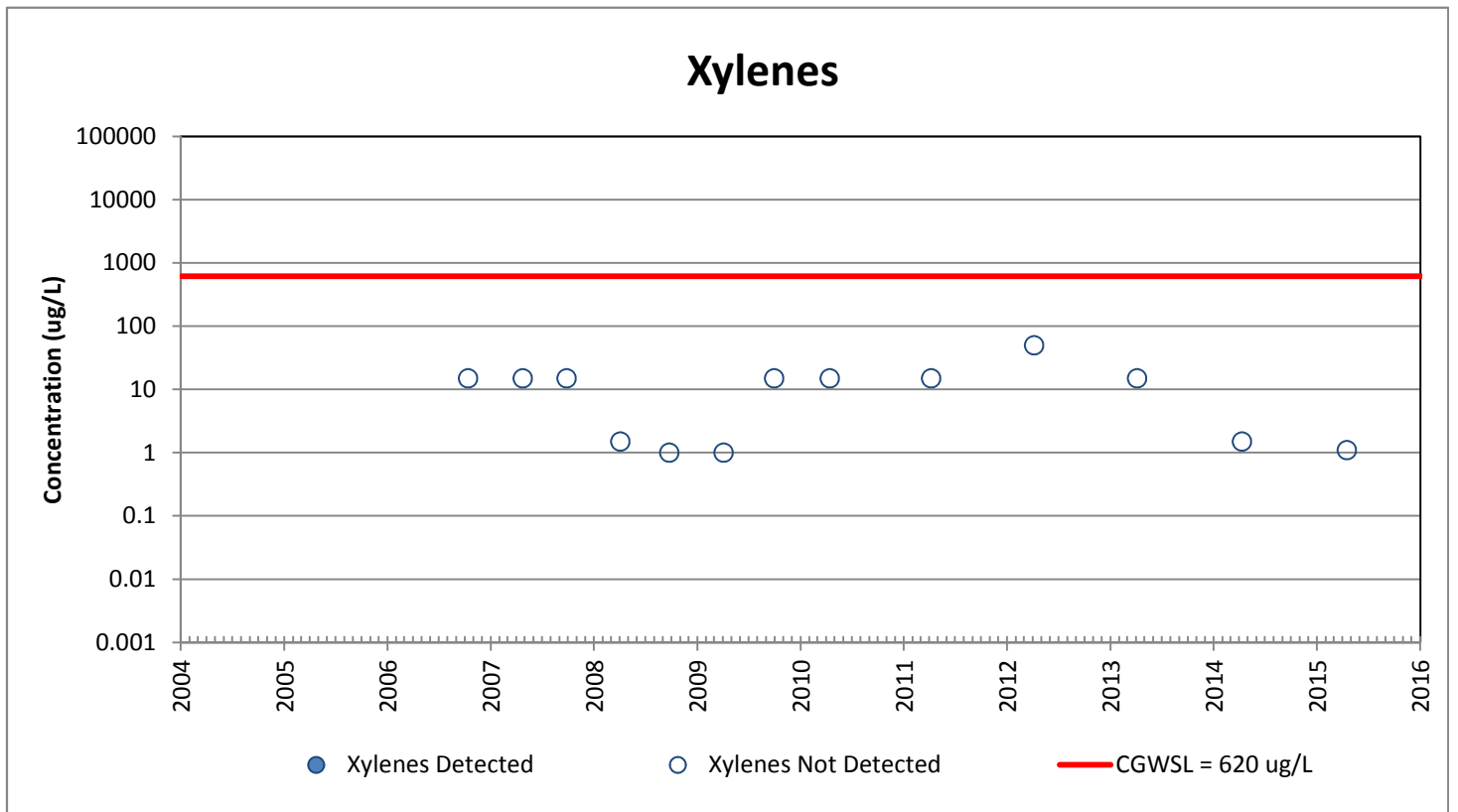
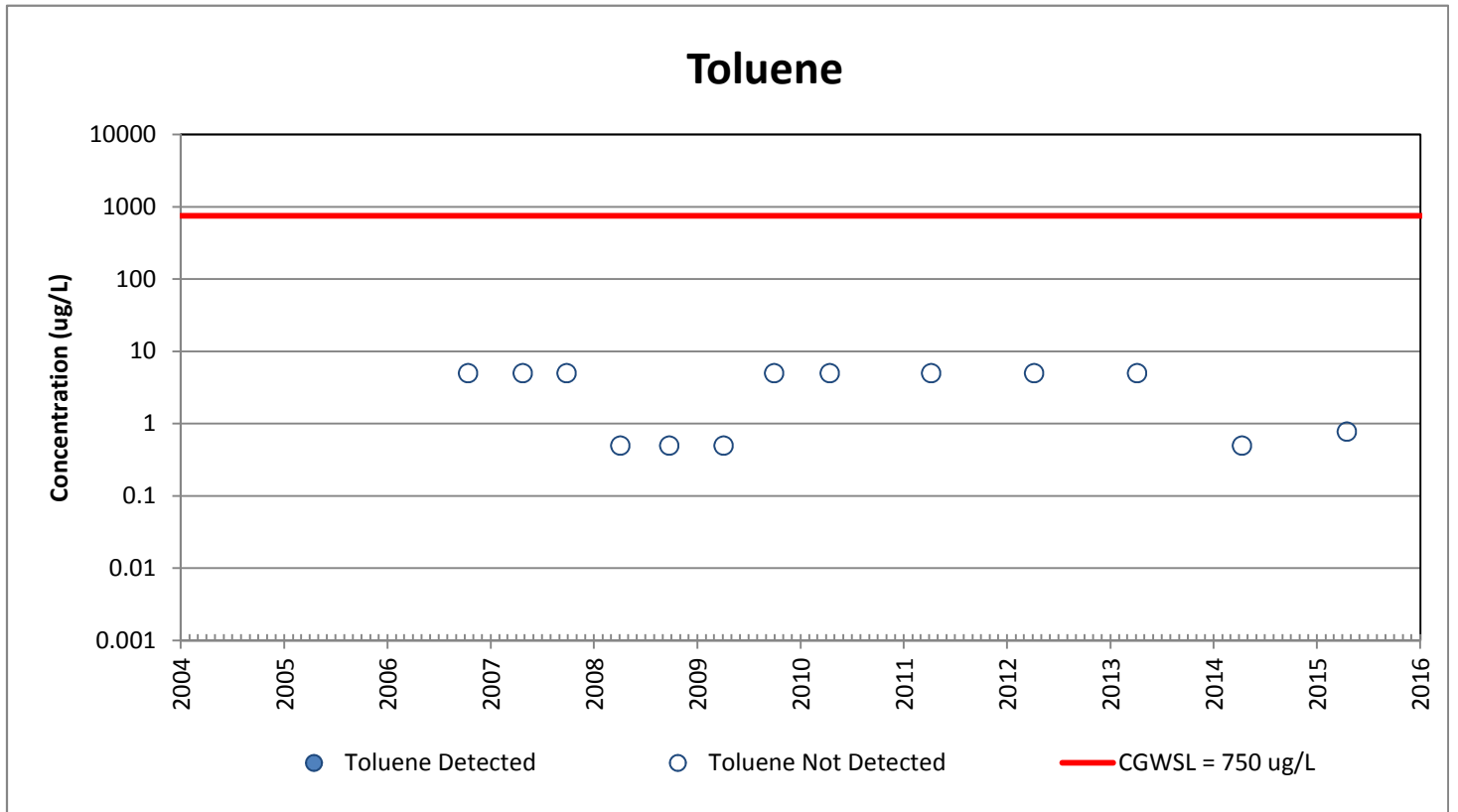
## Benzene



## Ethylbenzene

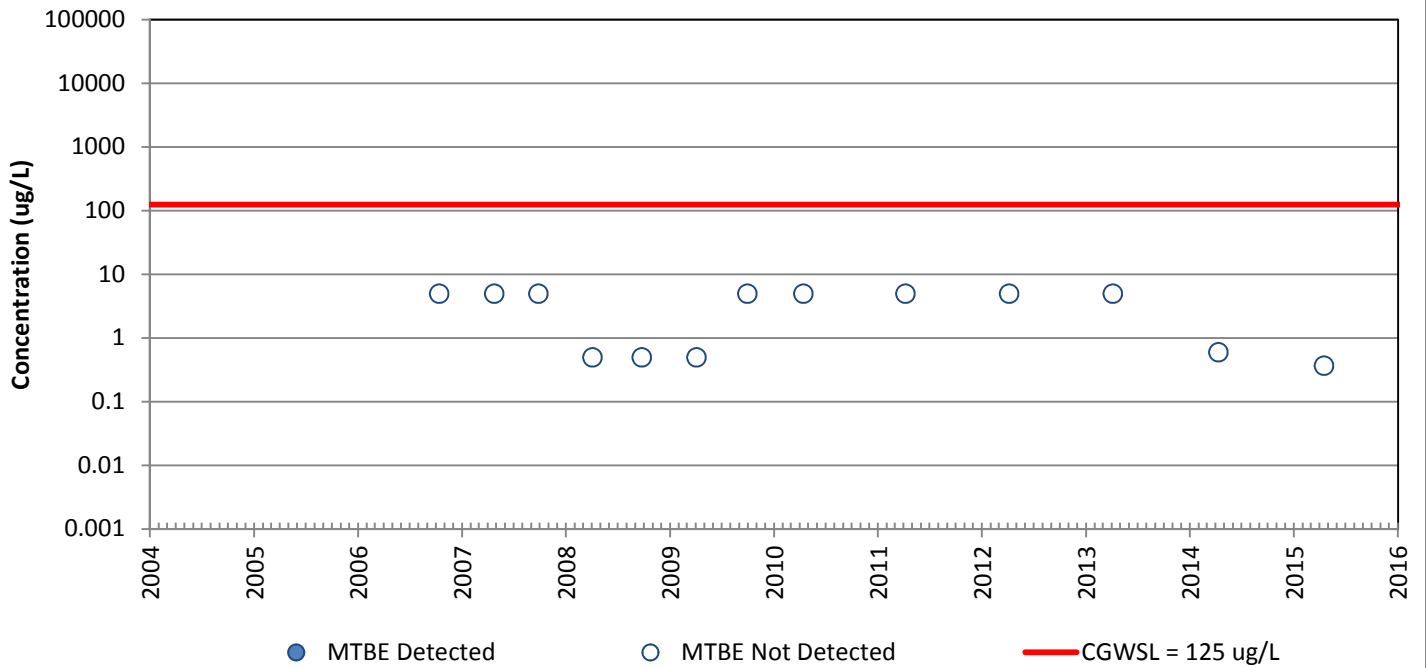


# MW-68

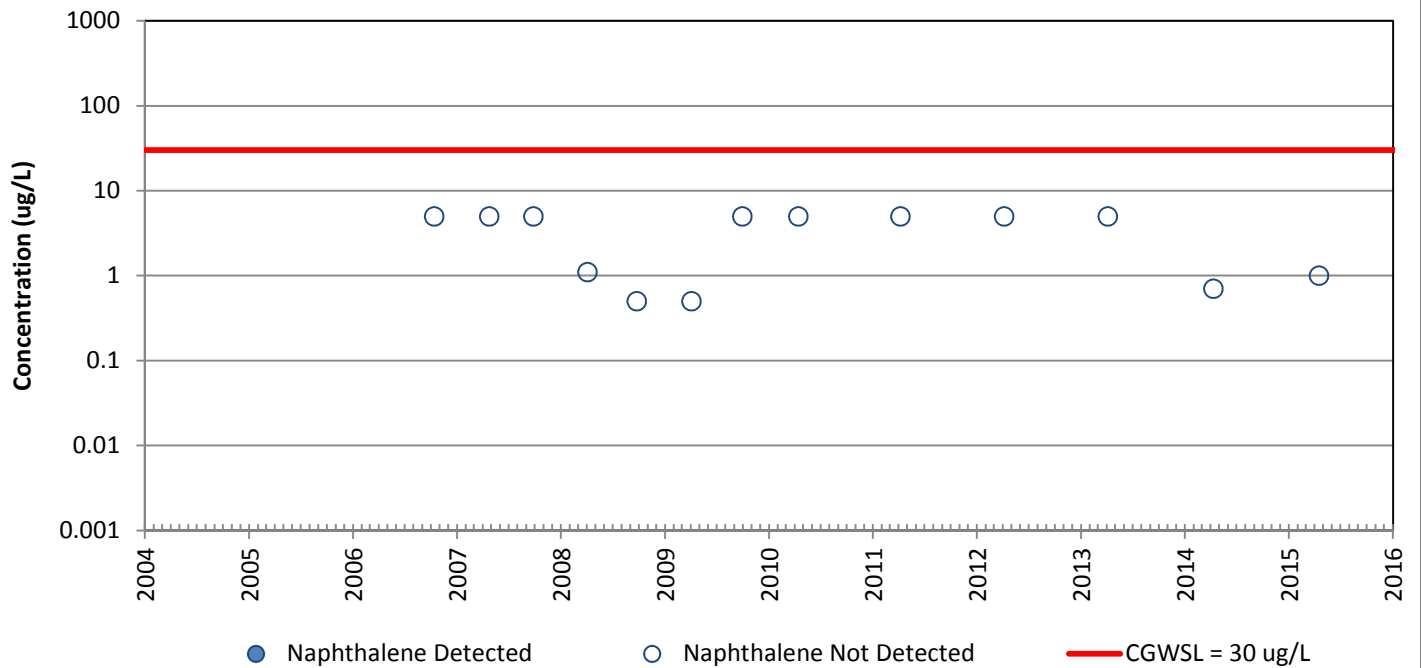


# MW-68

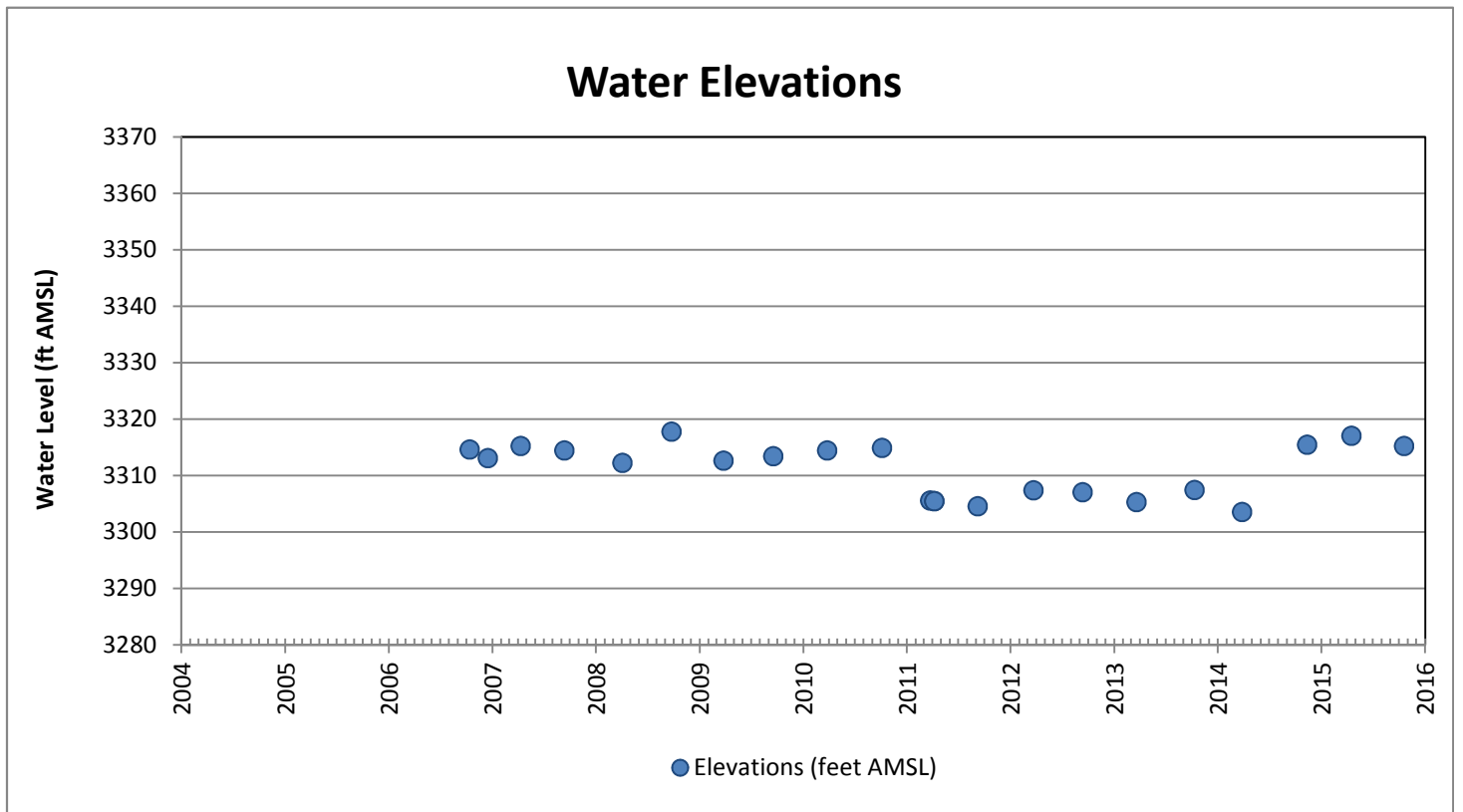
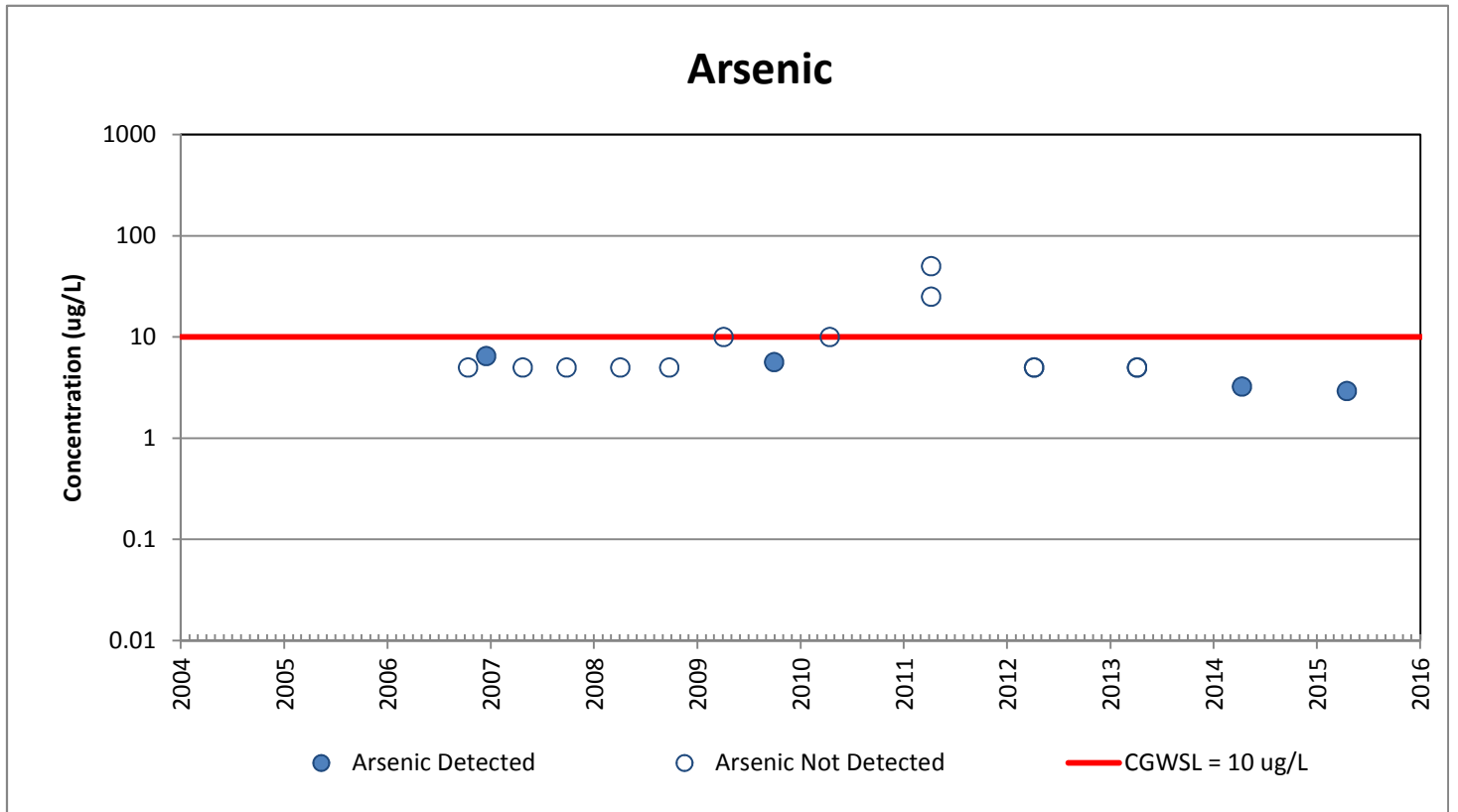
## MTBE



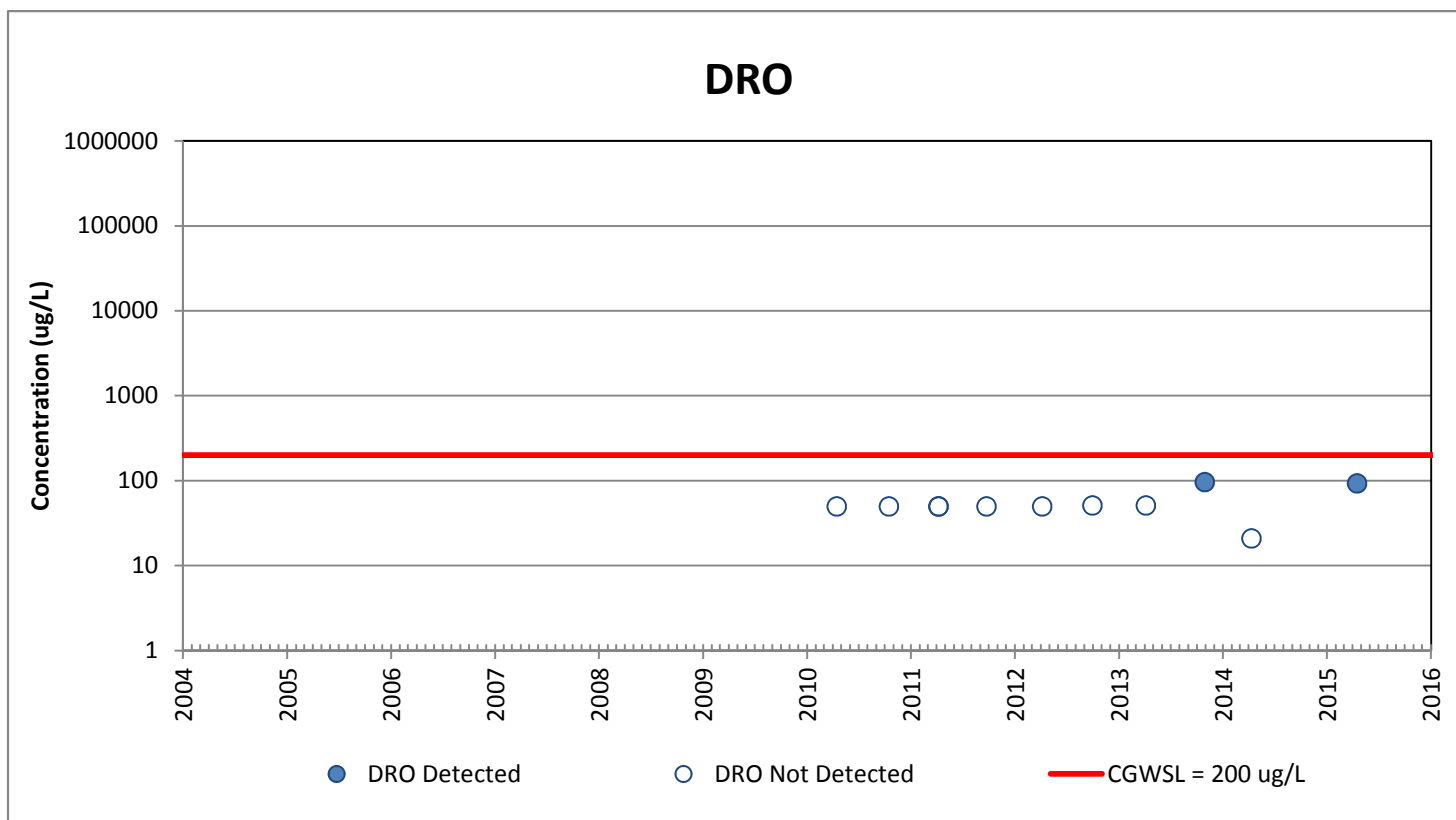
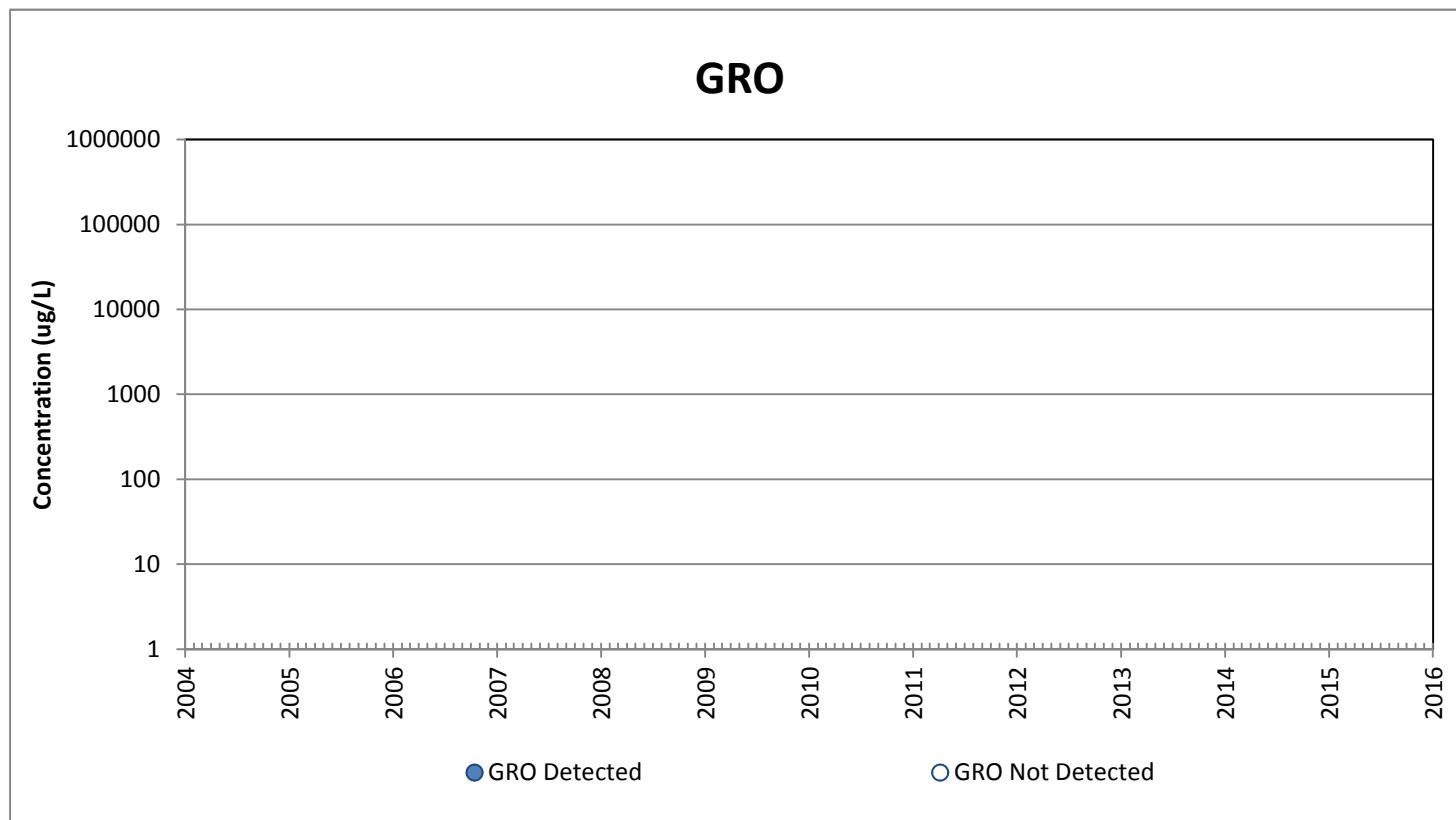
## Naphthalene



# MW-68

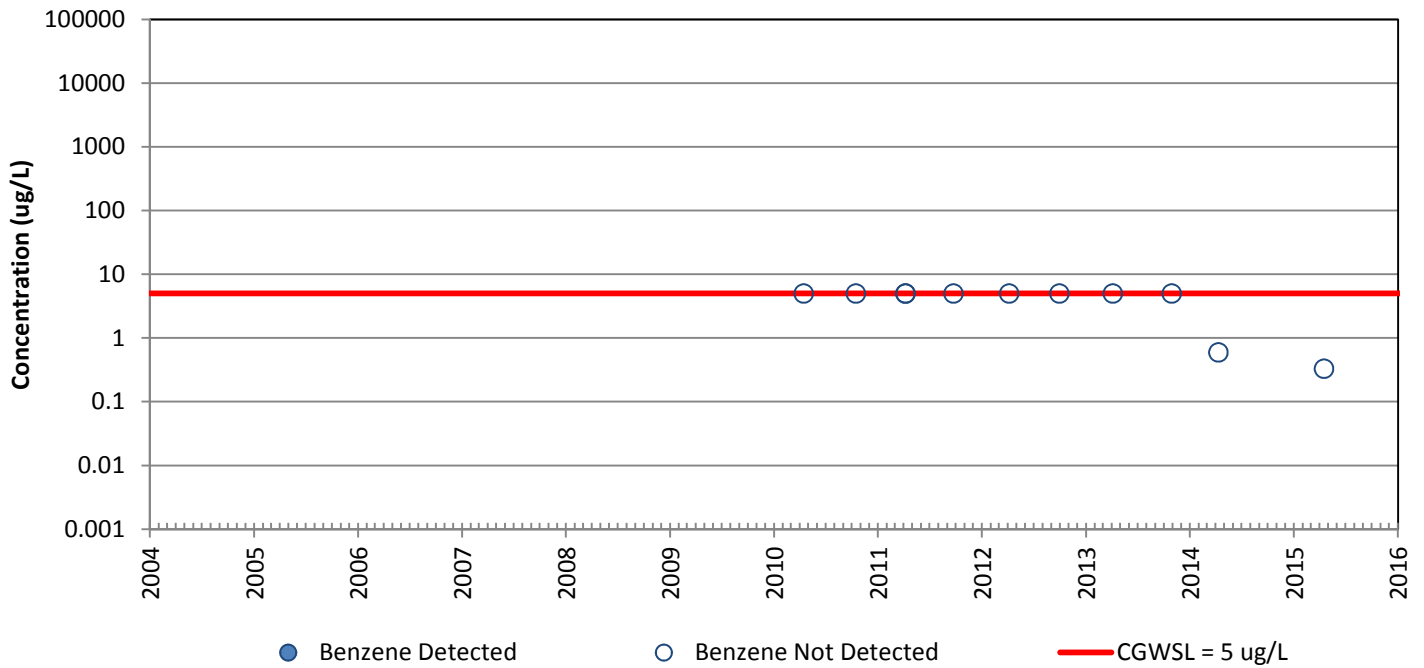


# MW-71

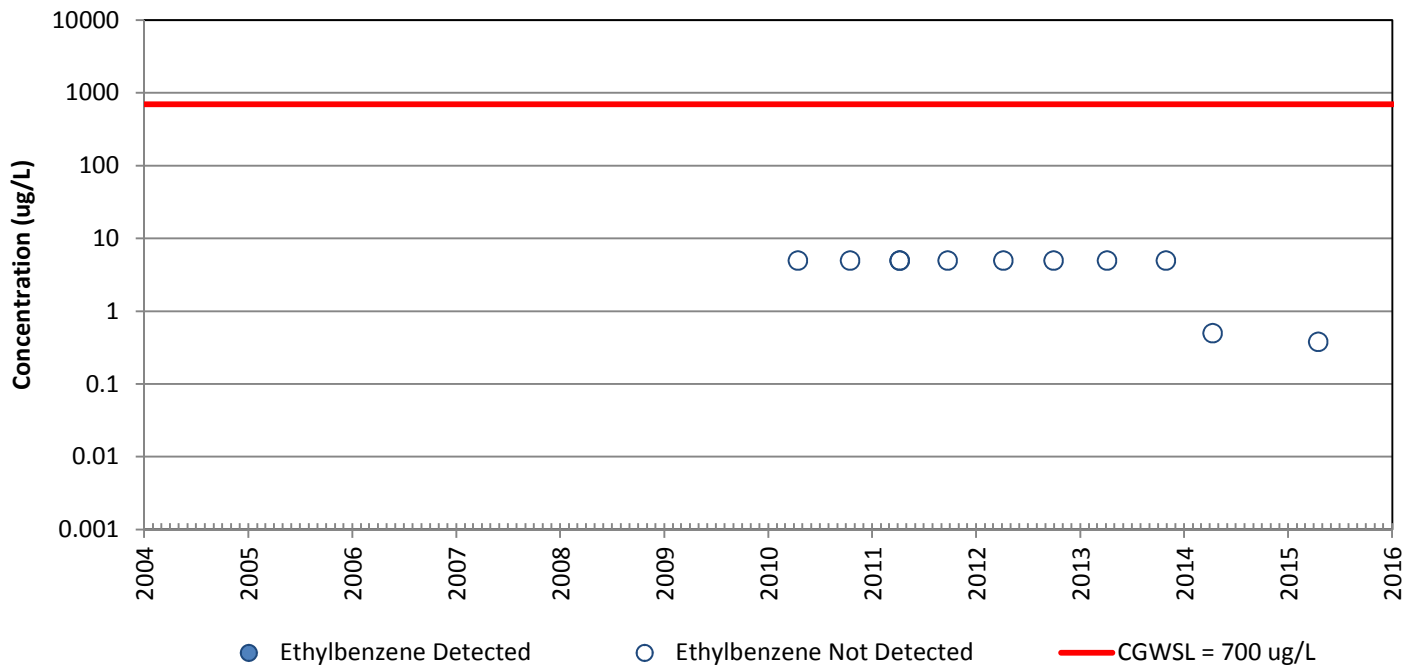


# MW-71

## Benzene

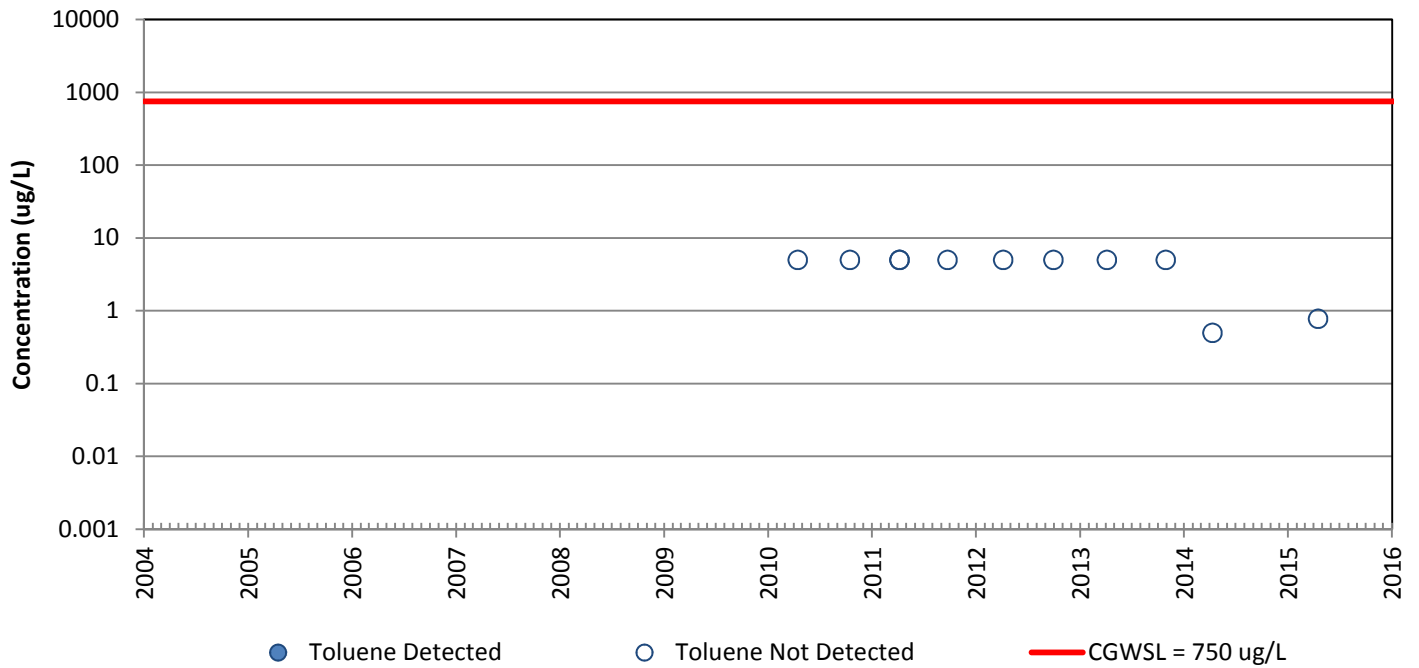


## Ethylbenzene

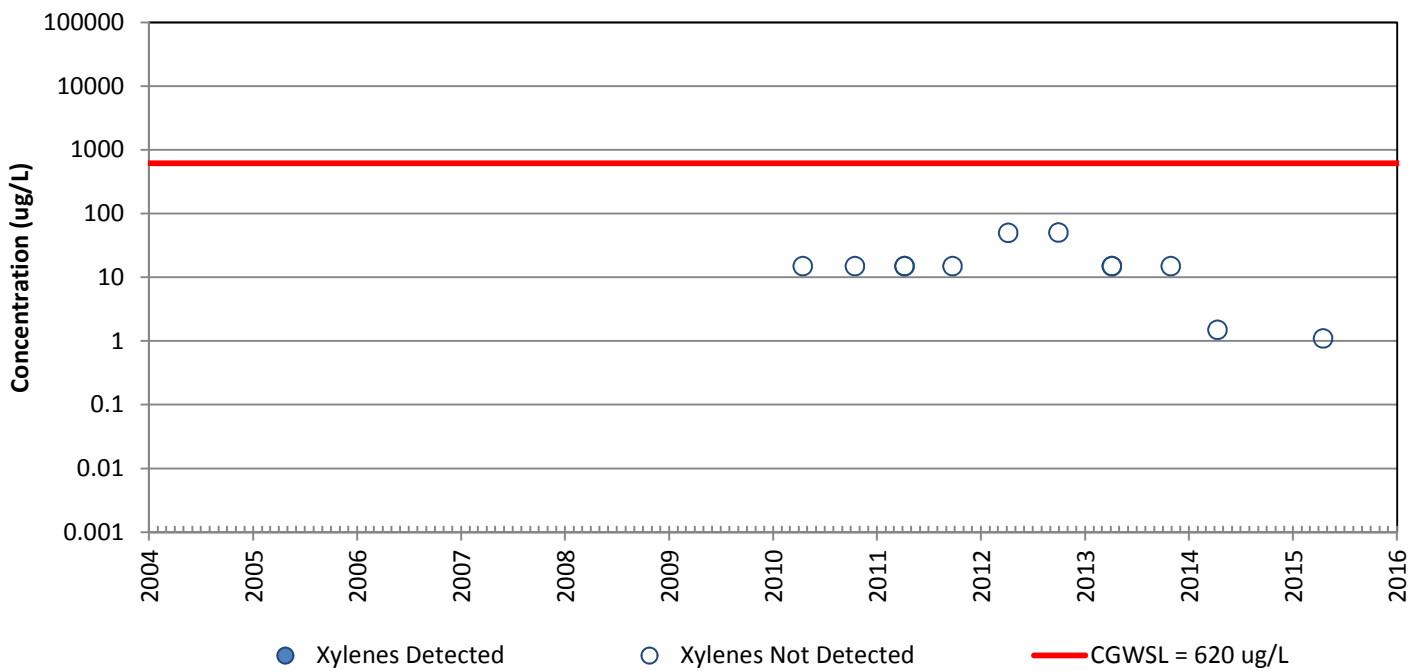


# MW-71

## Toluene

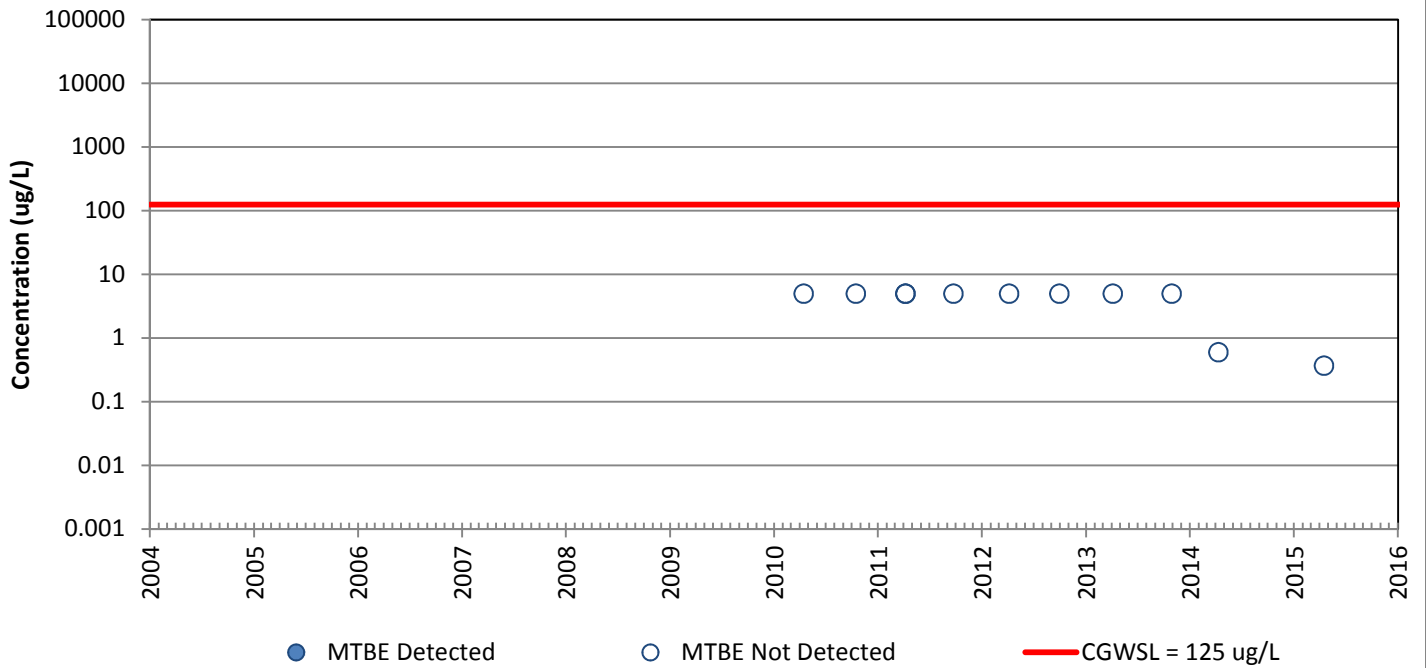


## Xylenes

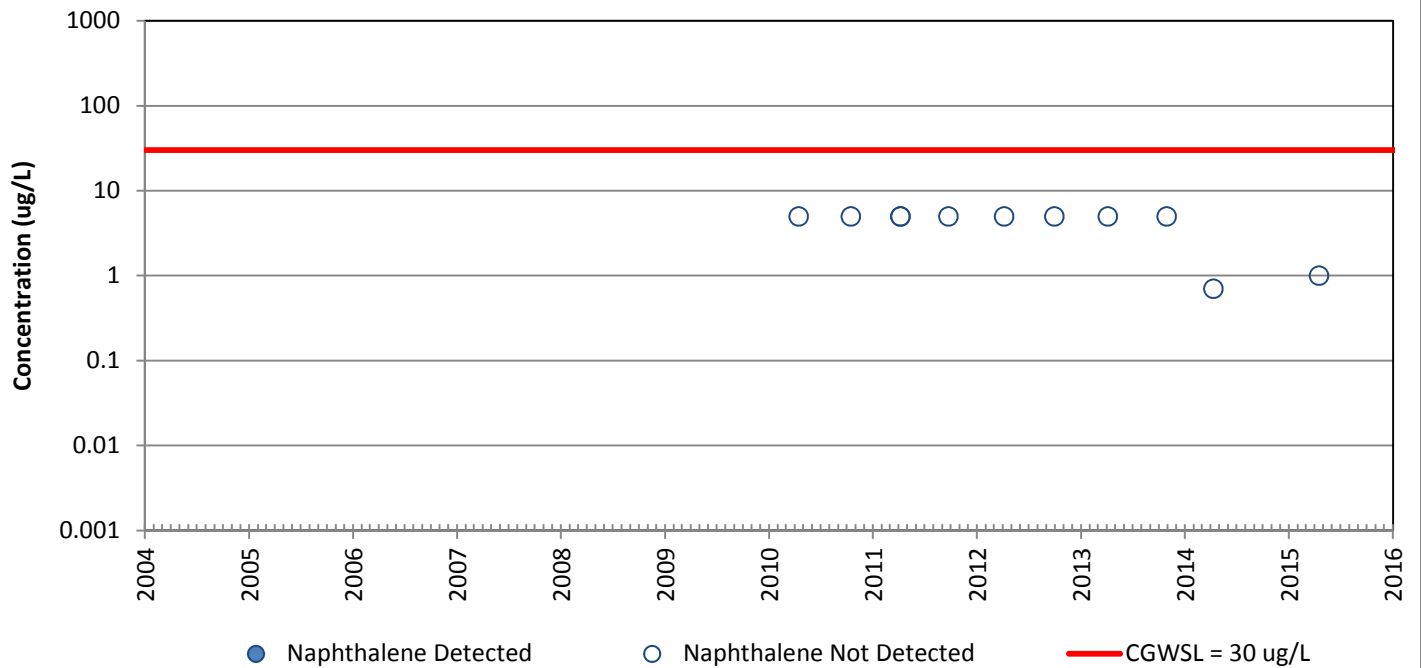


# MW-71

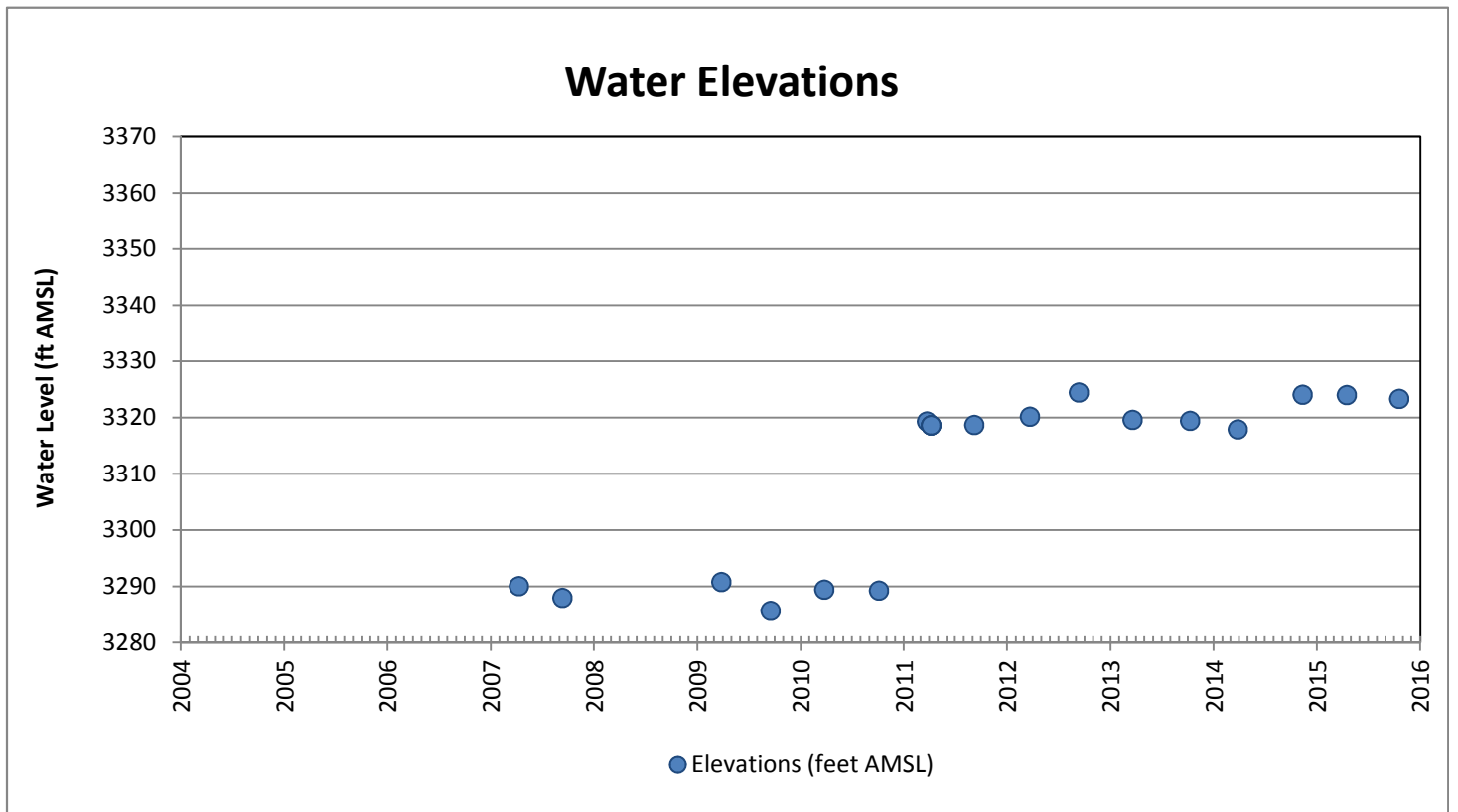
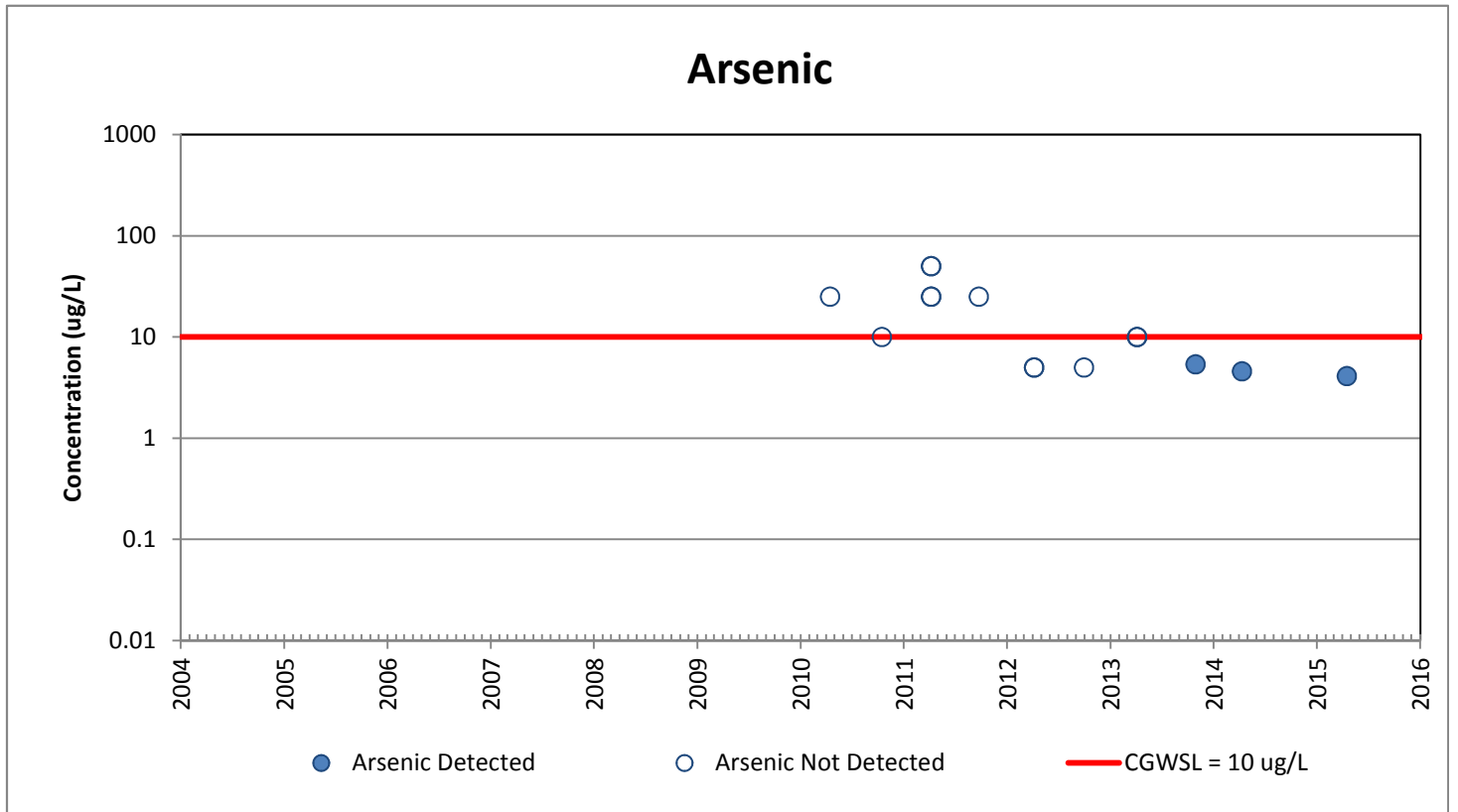
## MTBE



## Naphthalene

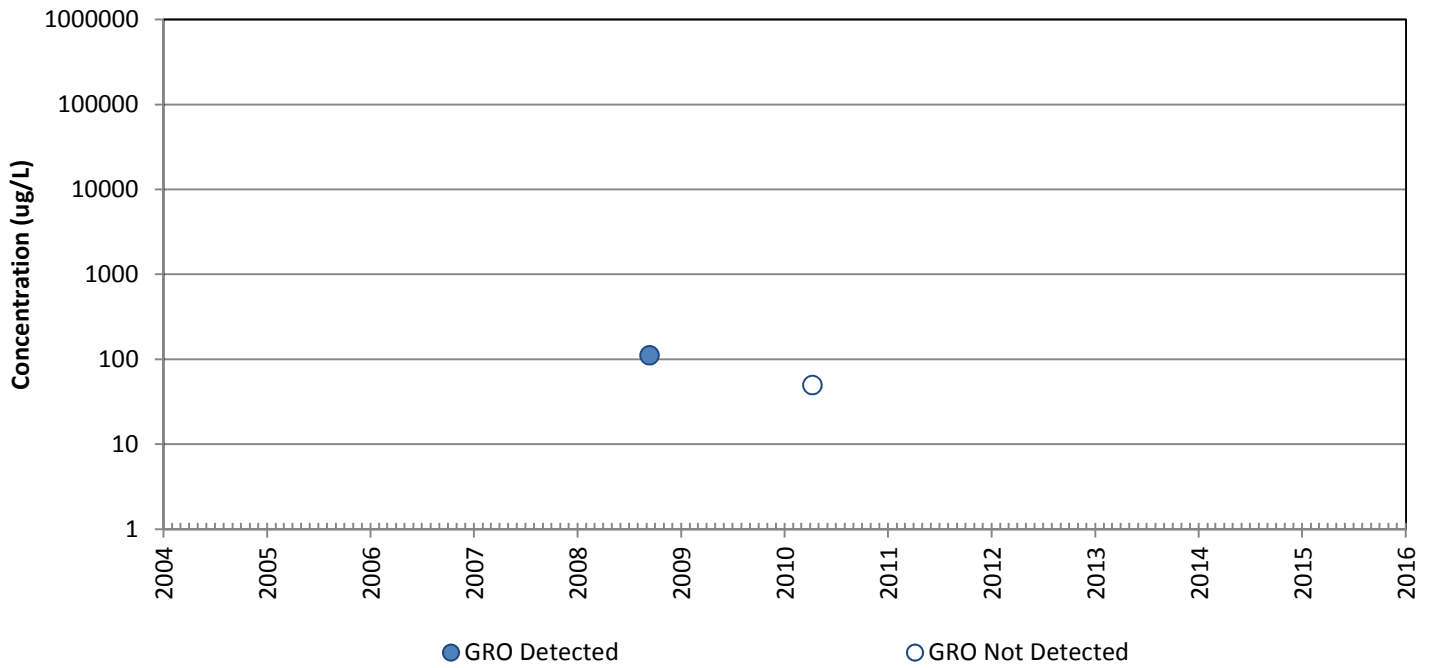


# MW-71

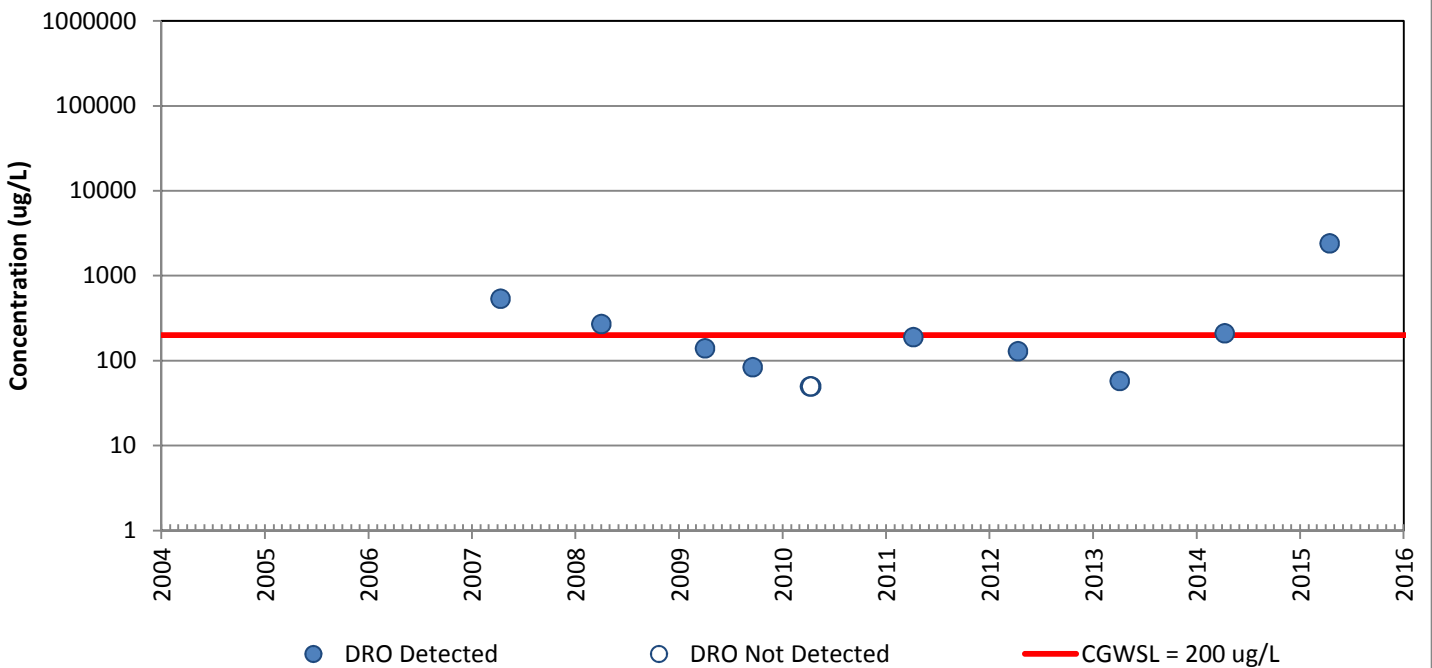


# MW-89

## GRO



## DRO

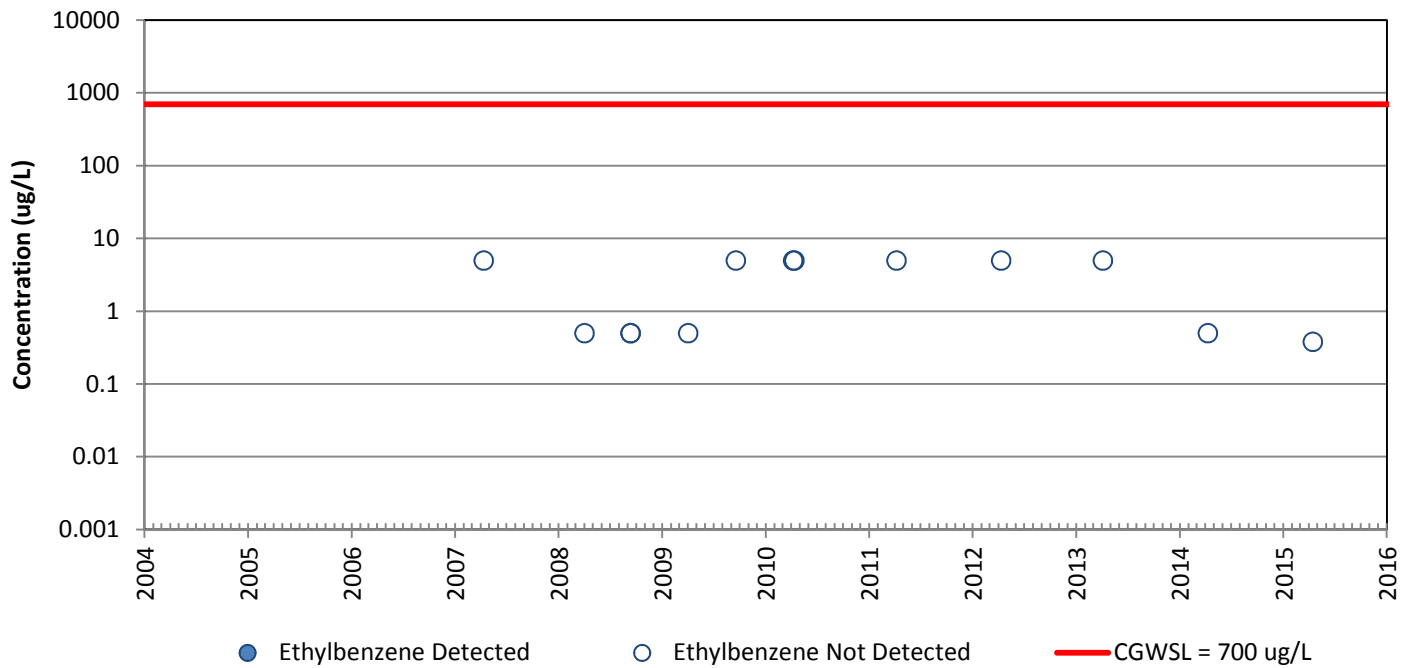


# MW-89

## Benzene

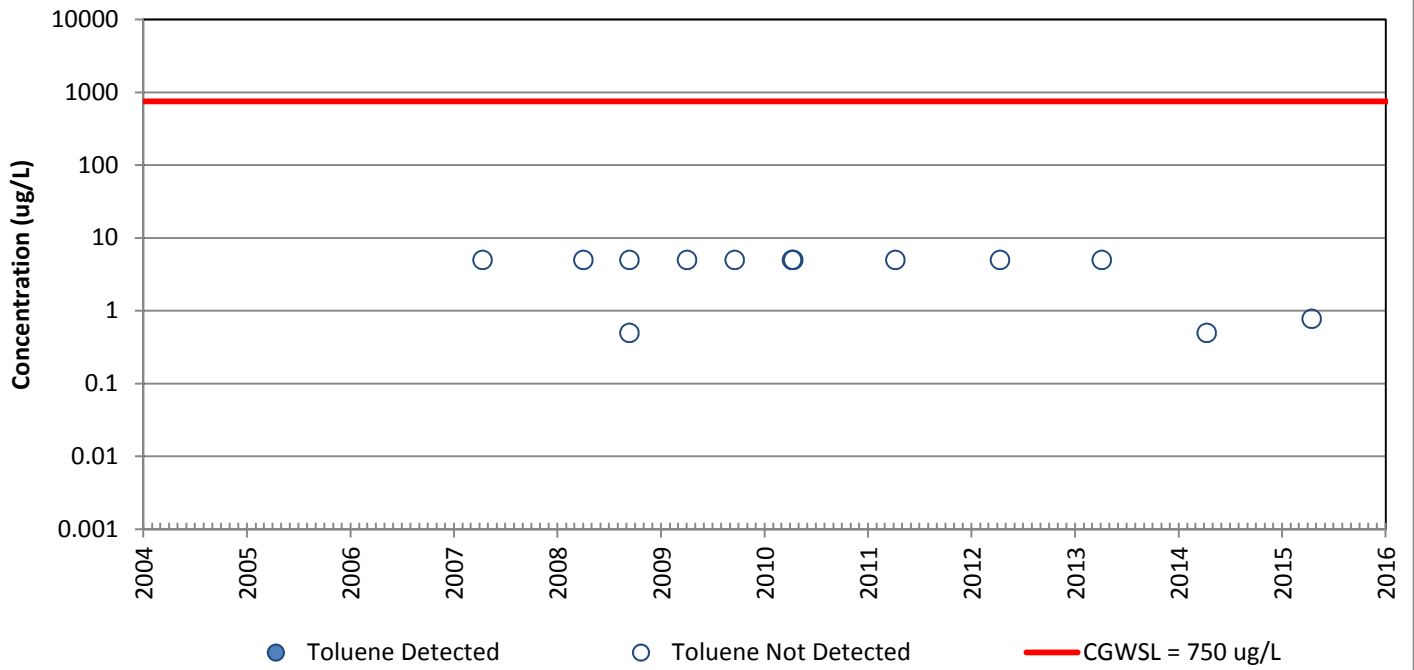


## Ethylbenzene

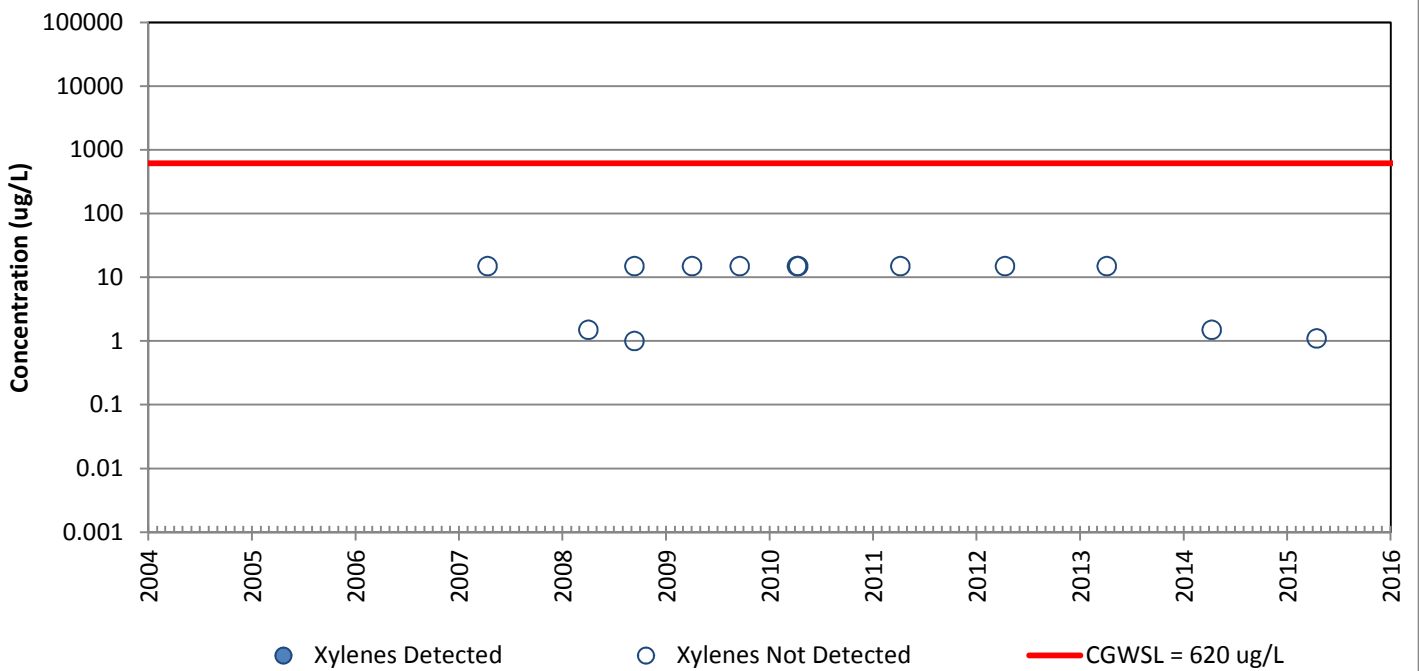


# MW-89

## Toluene

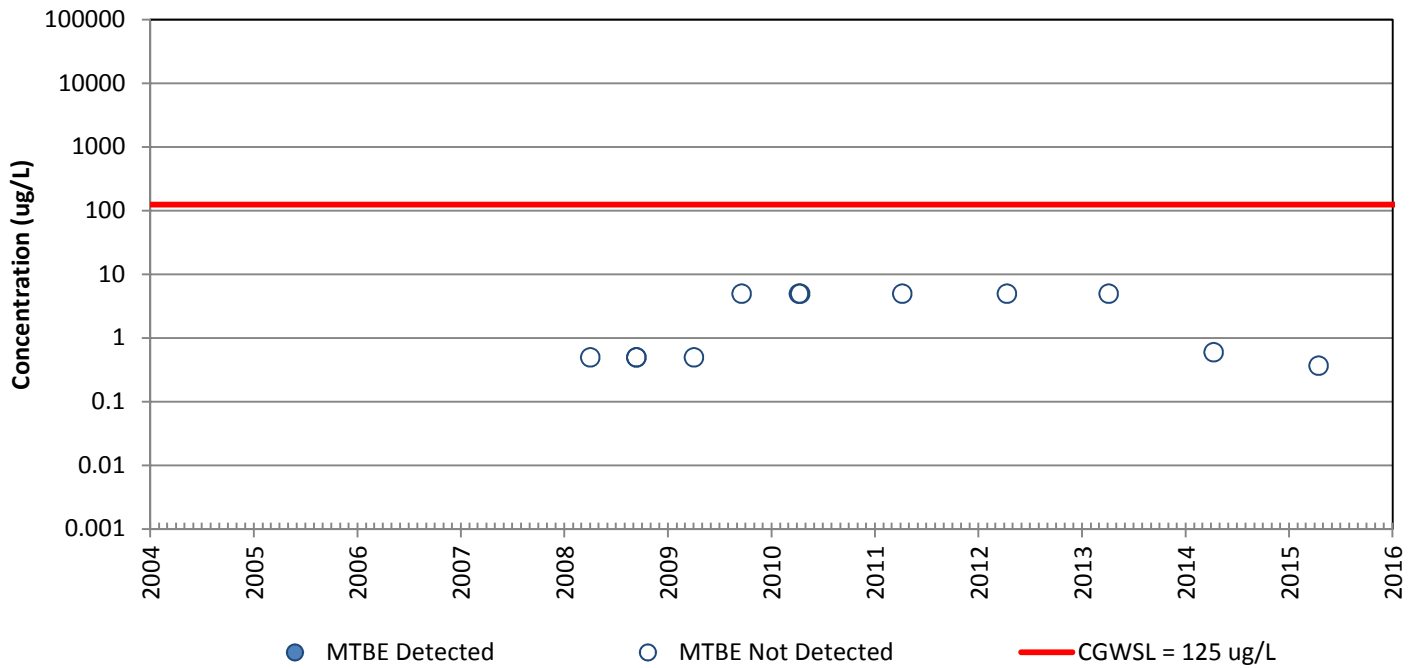


## Xylenes

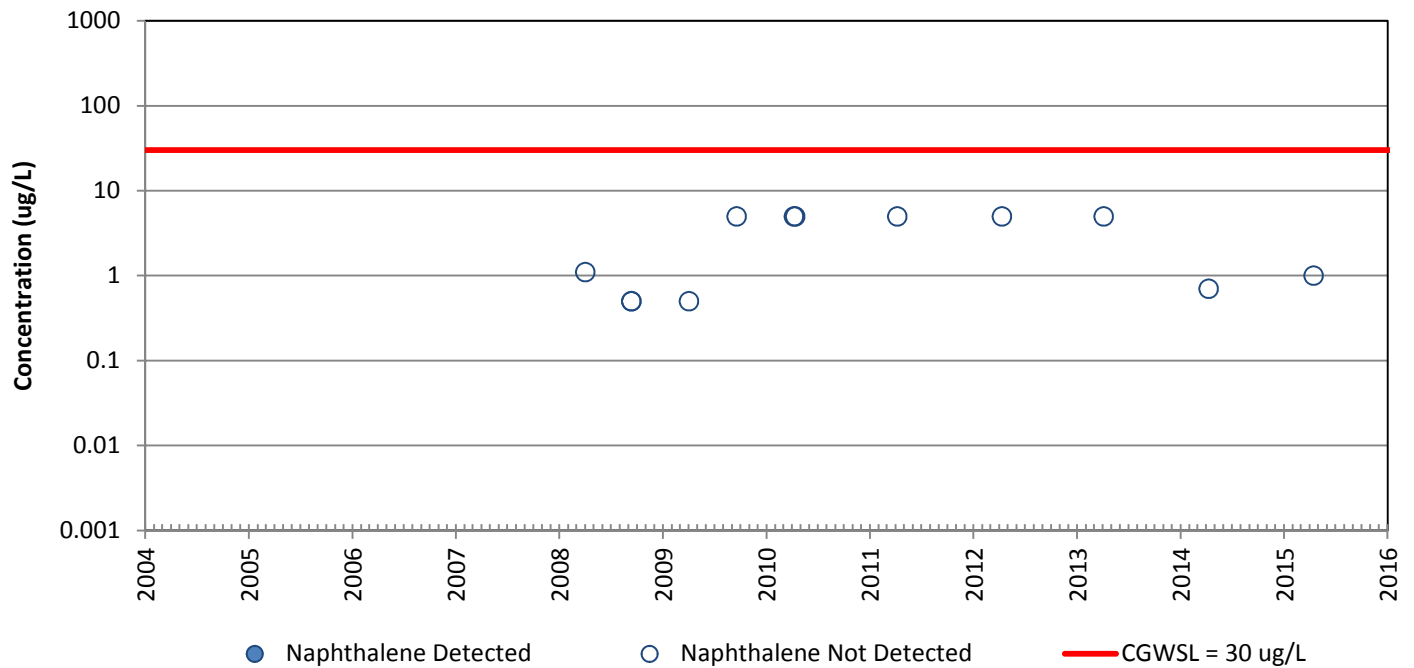


# MW-89

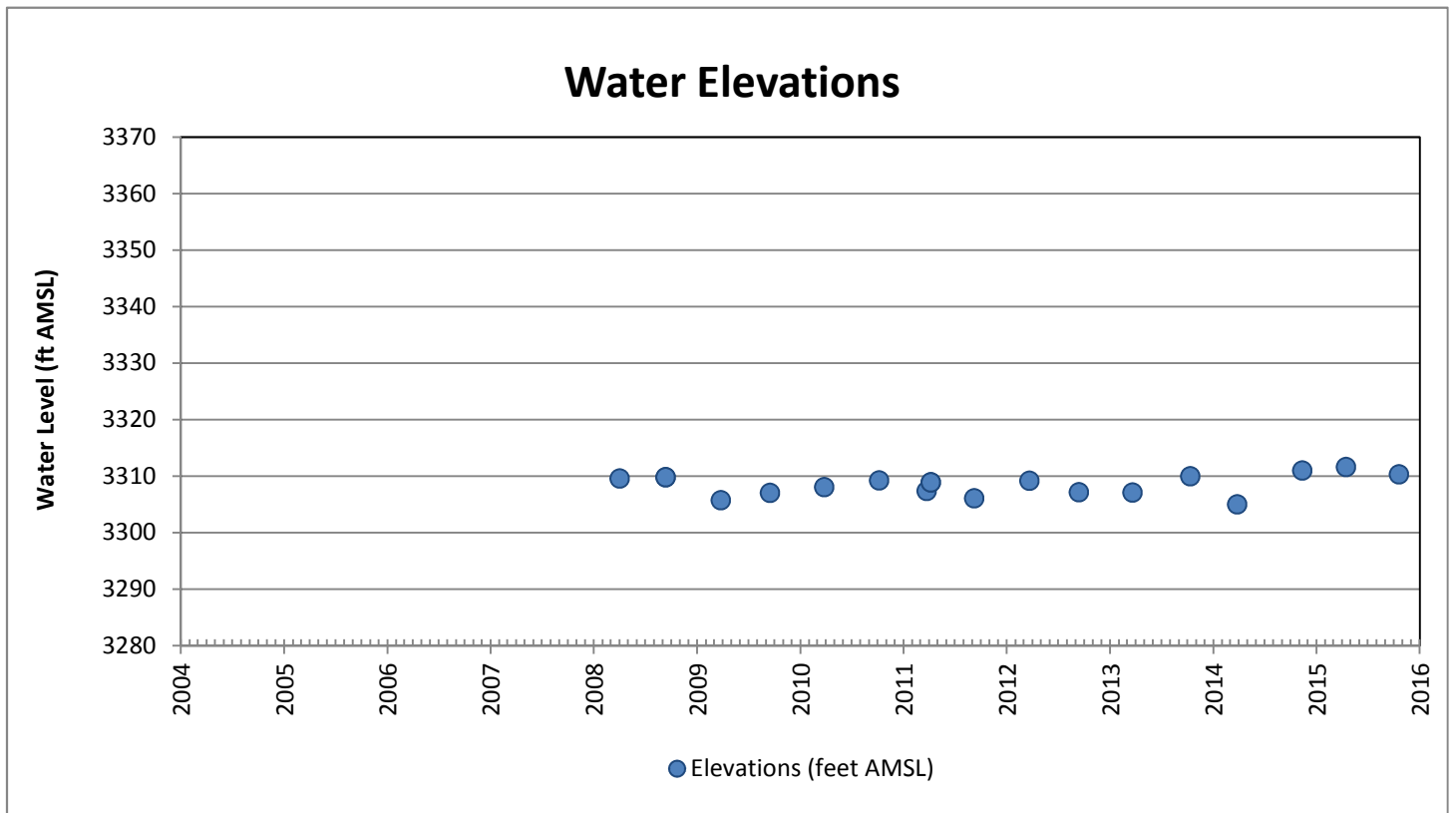
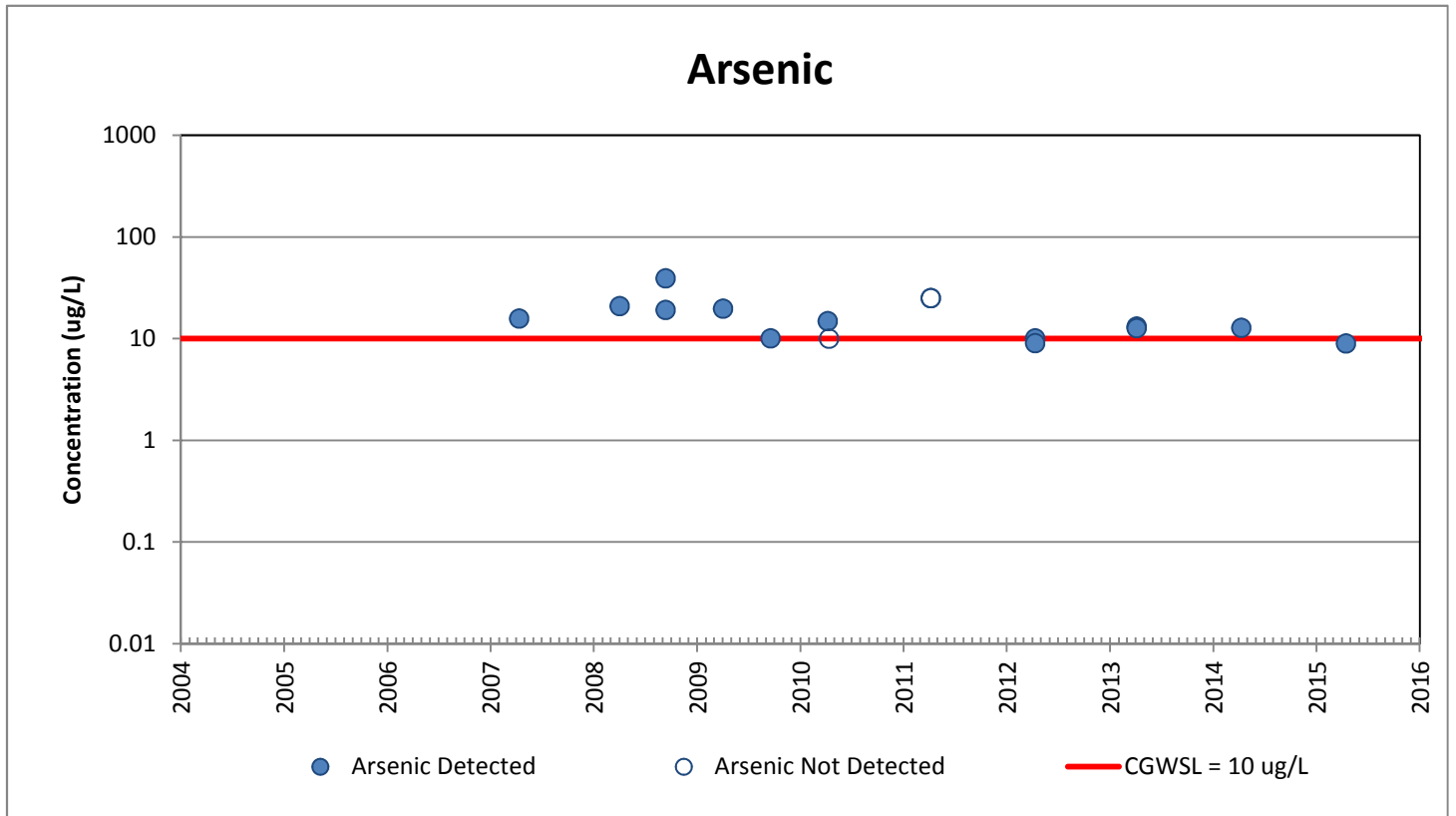
## MTBE



## Naphthalene

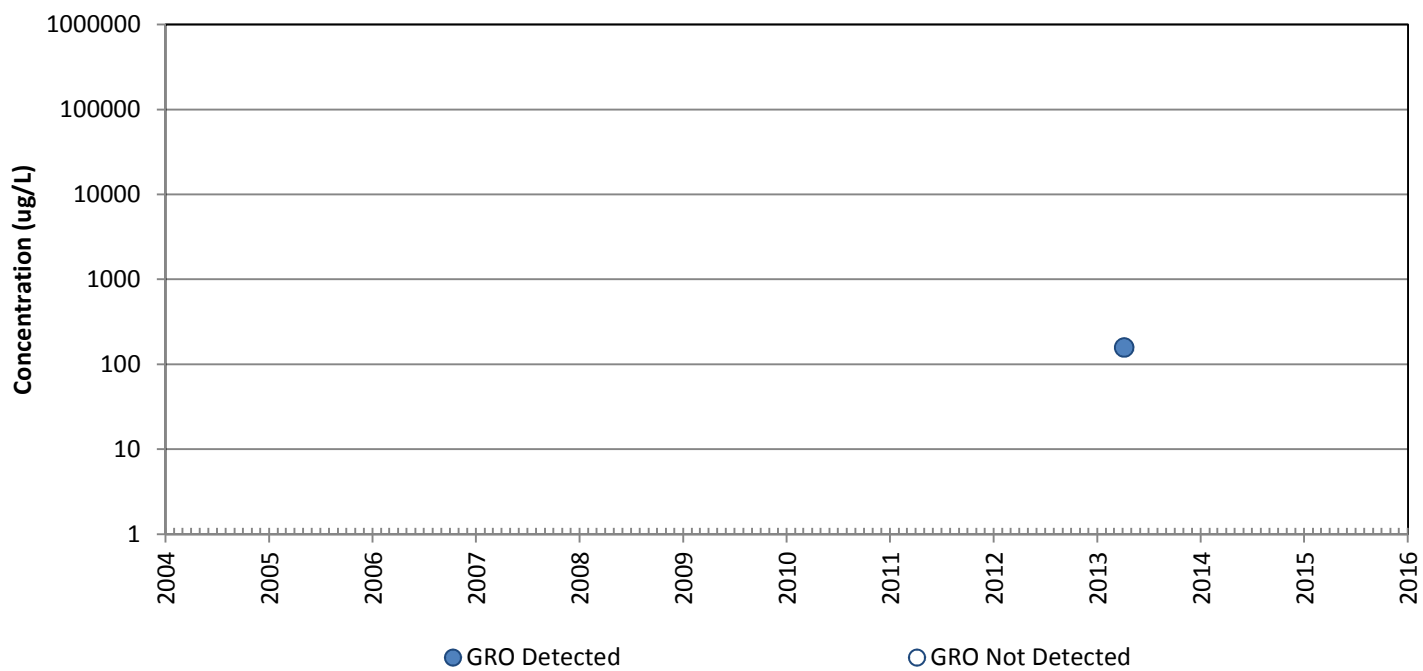


# MW-89

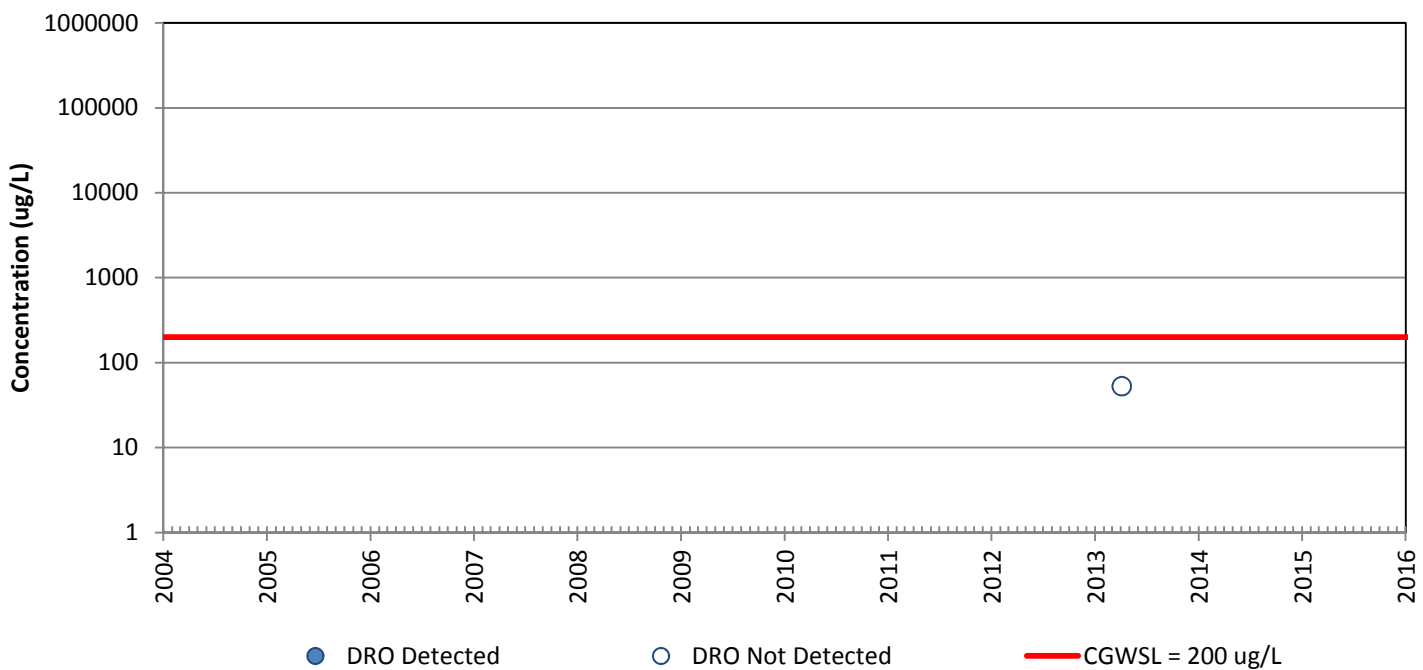


# NP-1

## GRO

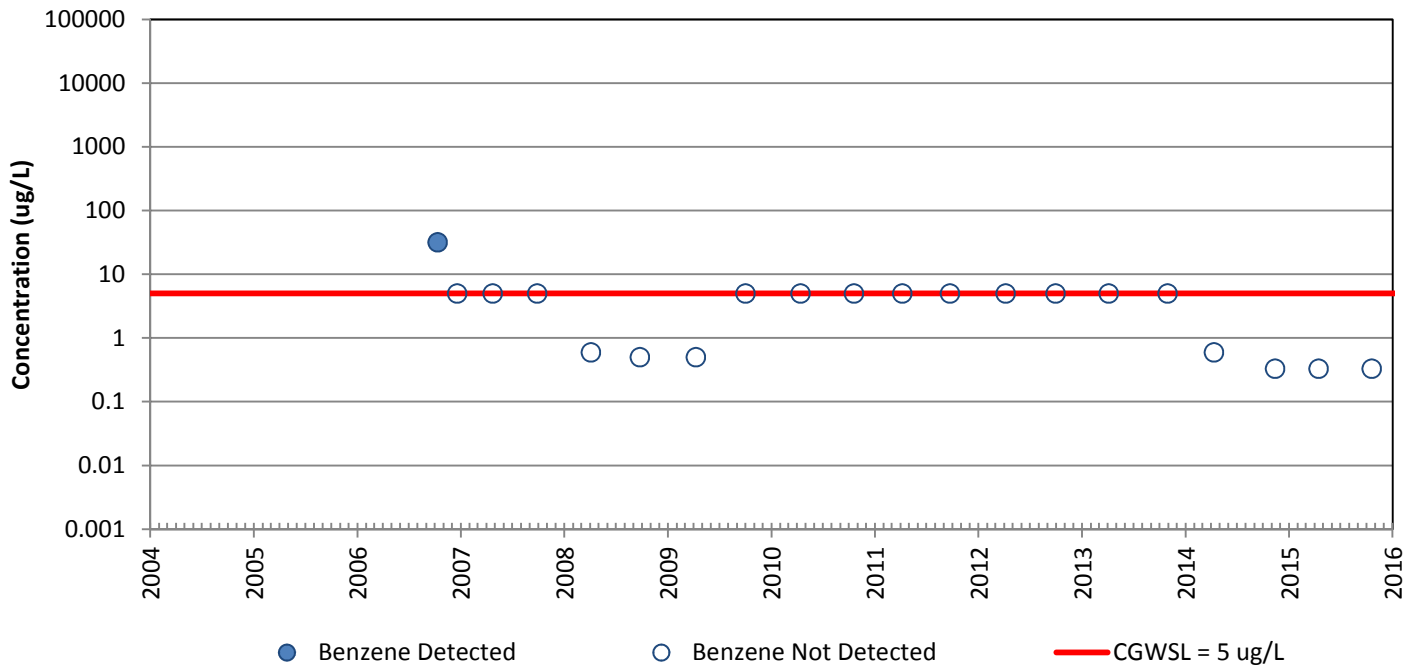


## DRO

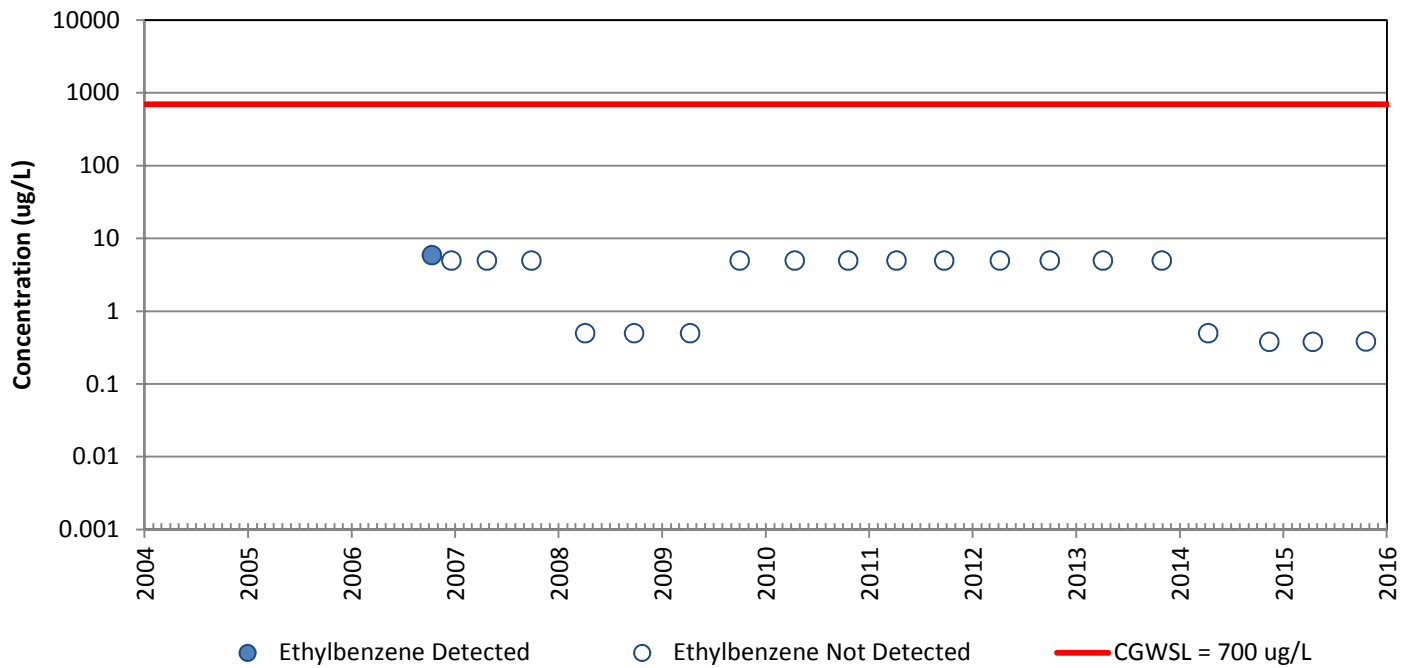


# NP-1

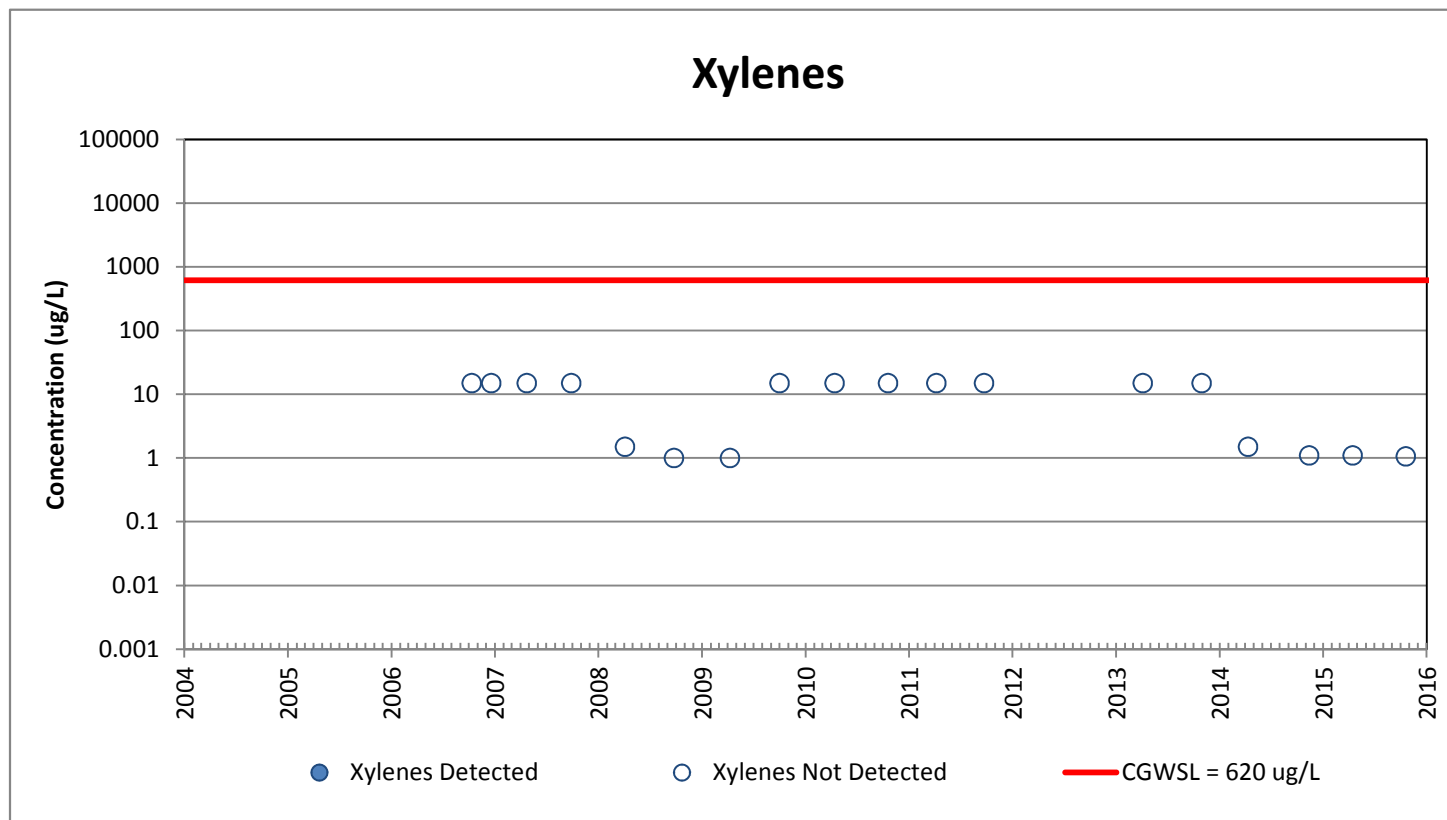
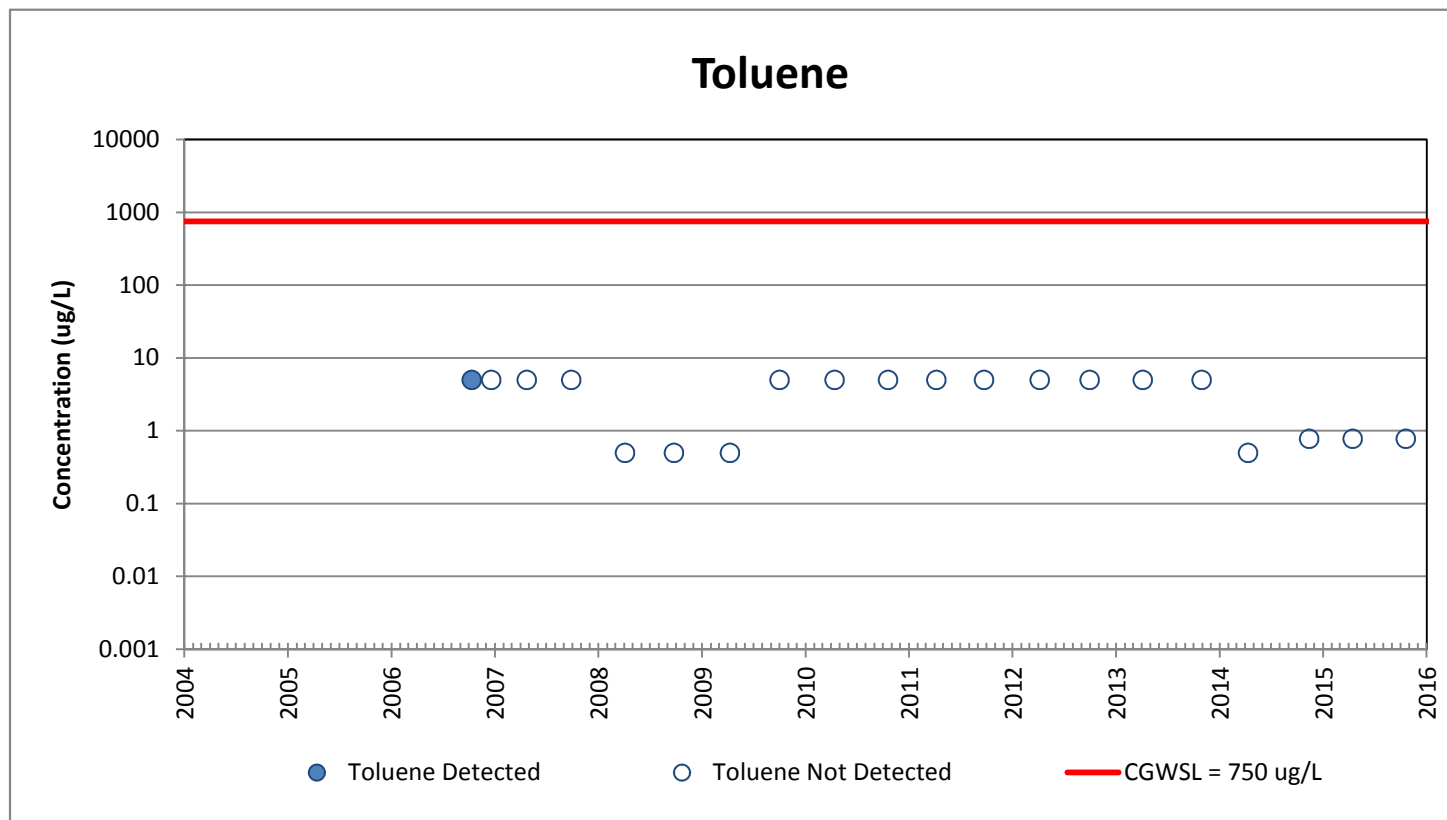
## Benzene



## Ethylbenzene

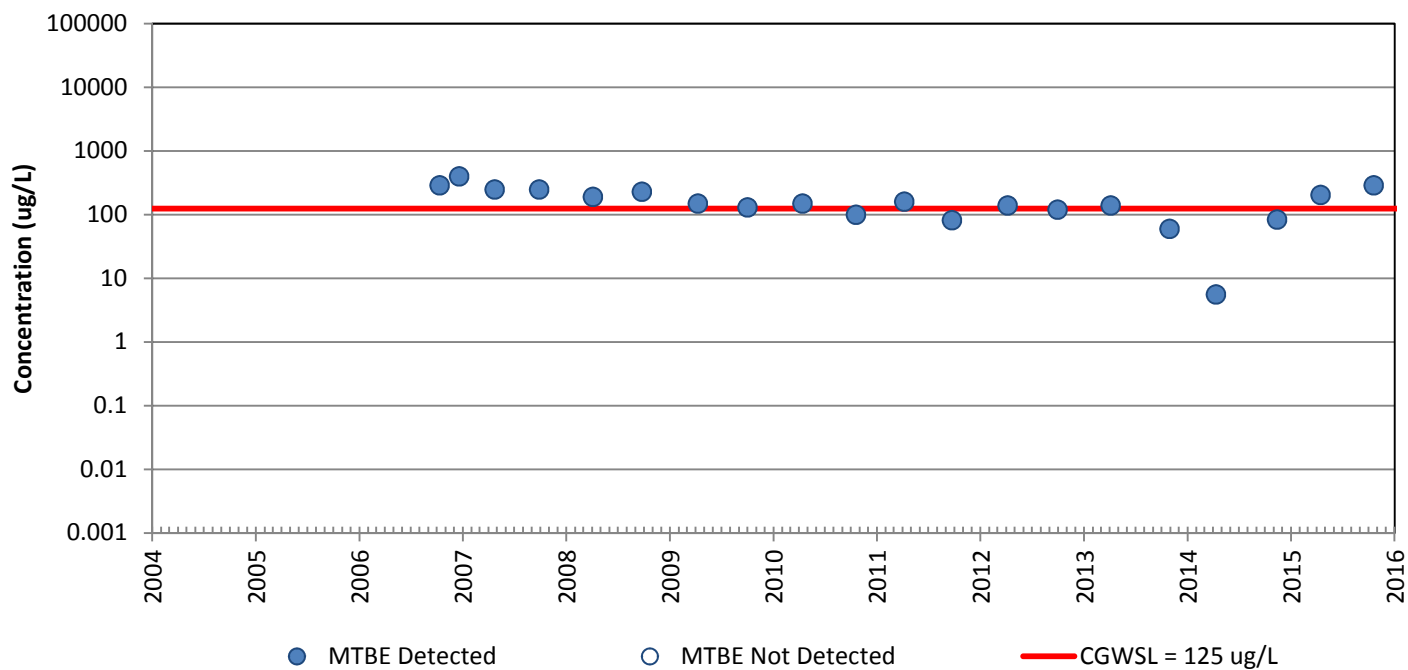


# NP-1

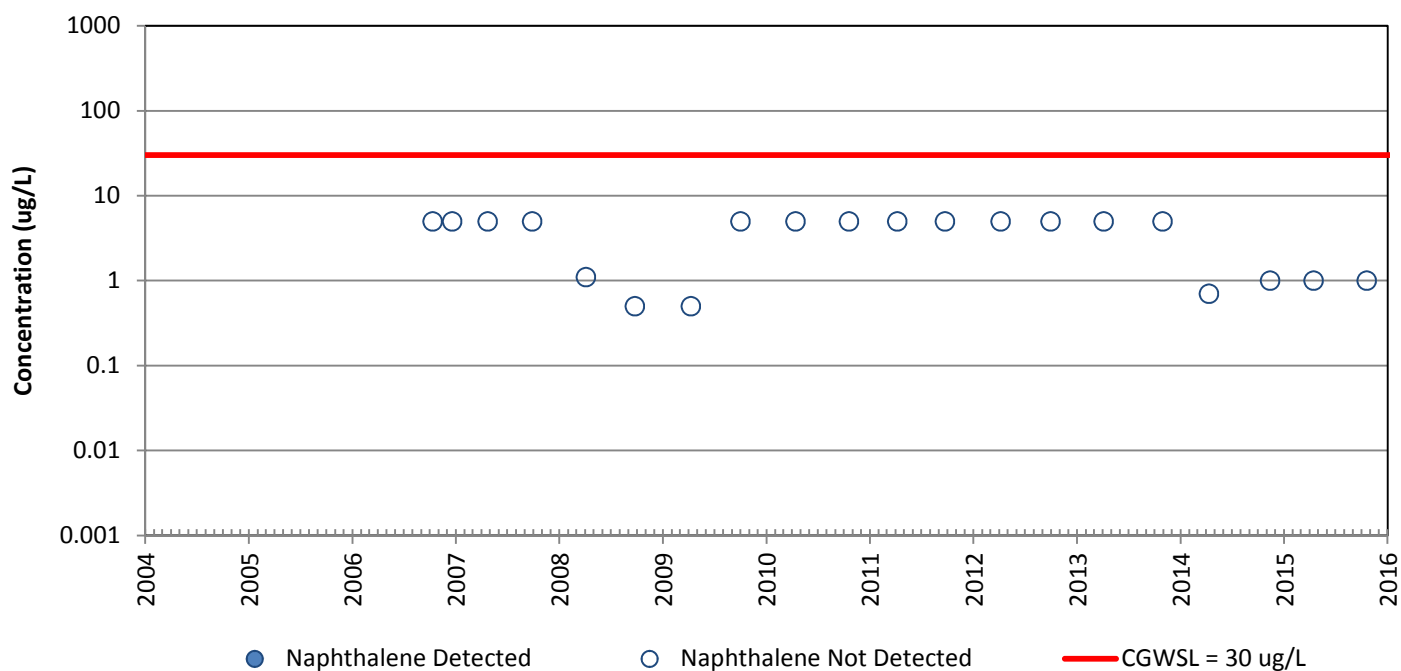


# NP-1

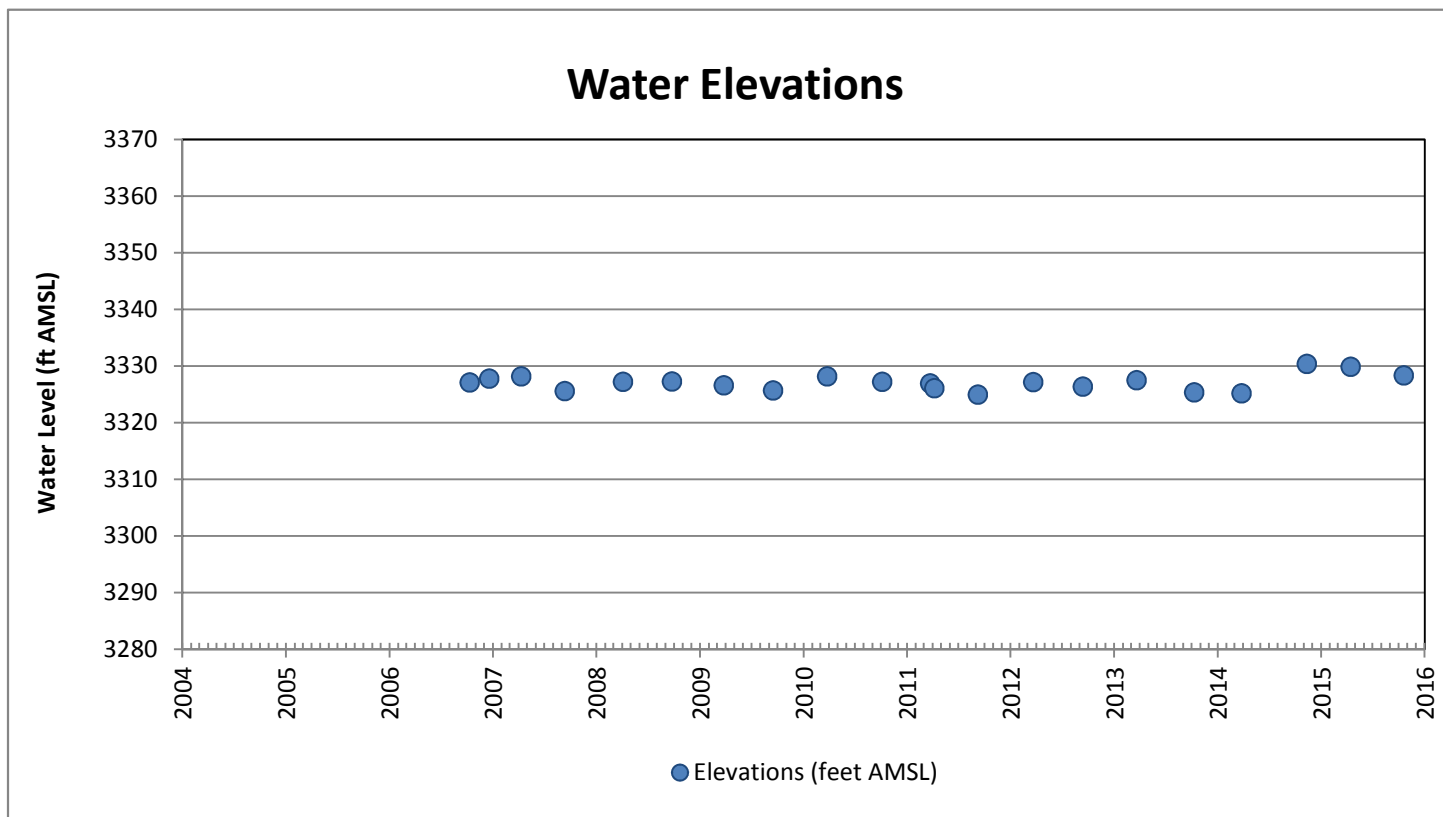
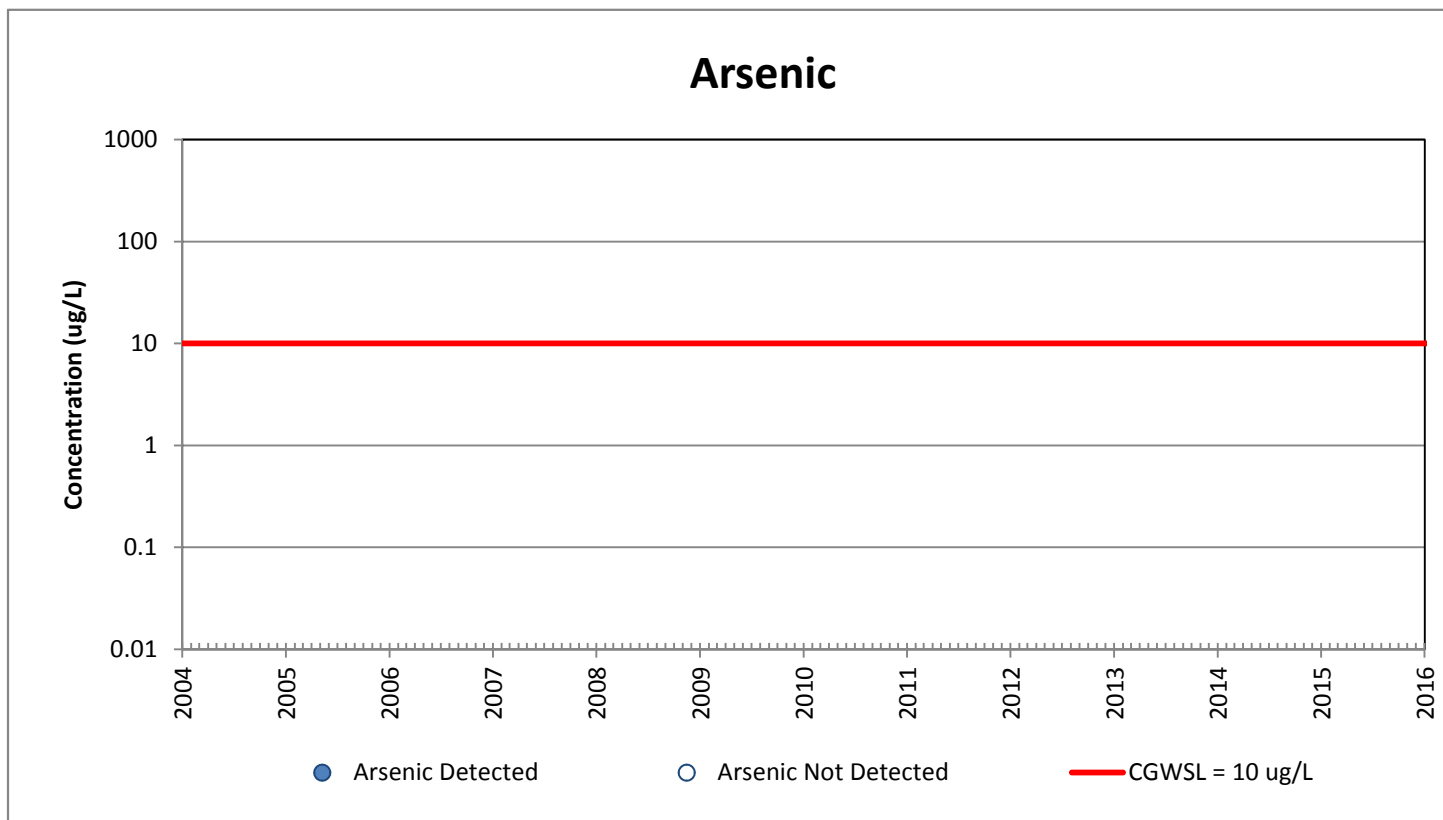
## MTBE



## Naphthalene

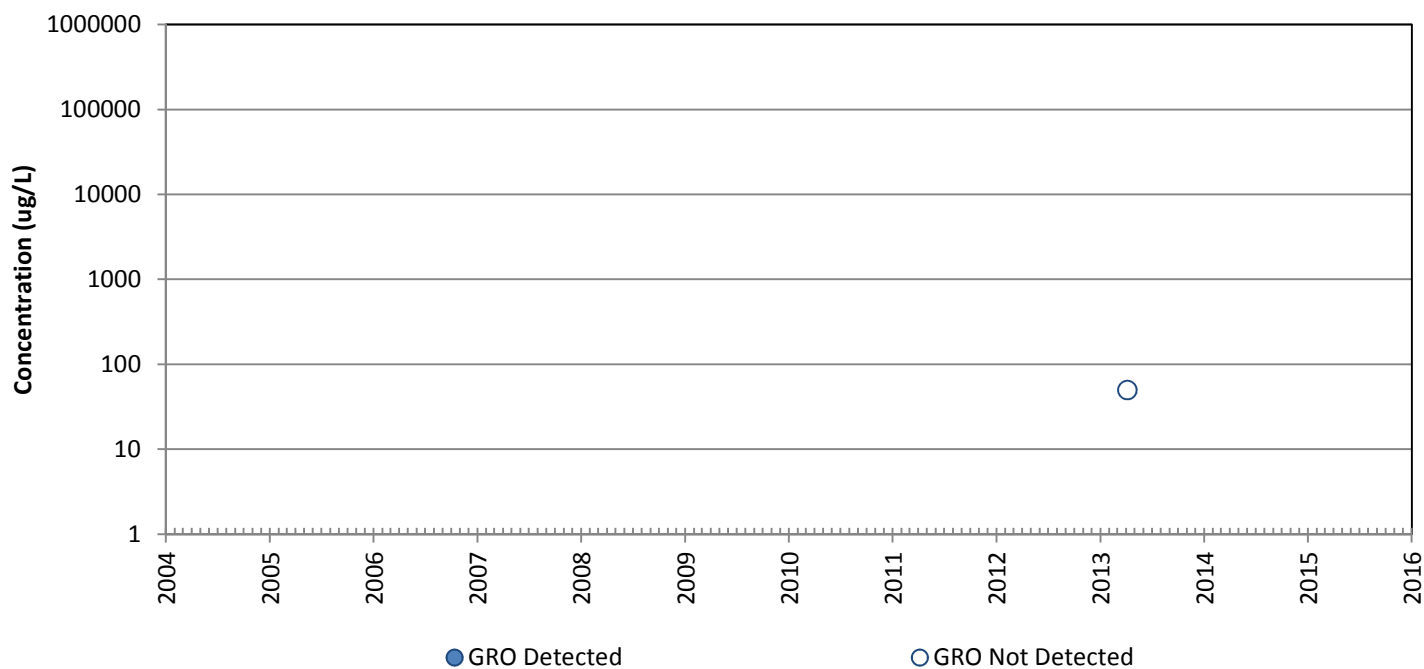


# NP-1

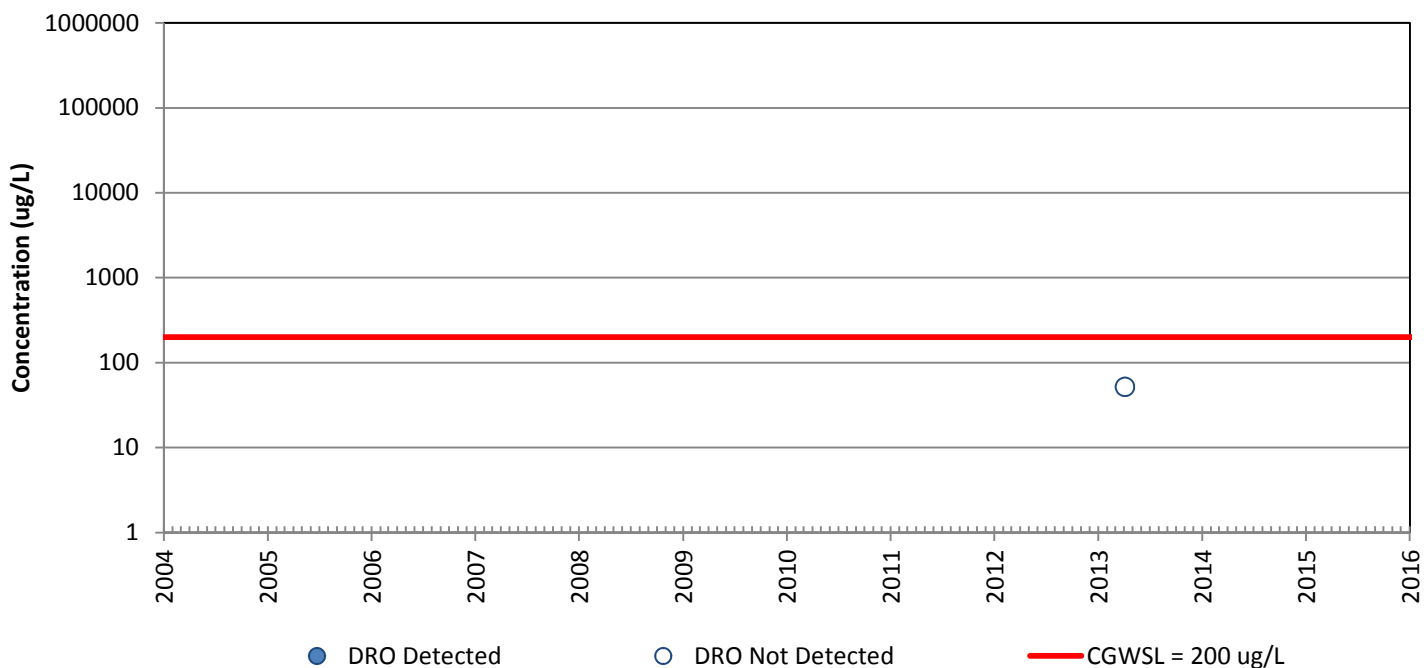


# NP-2

## GRO

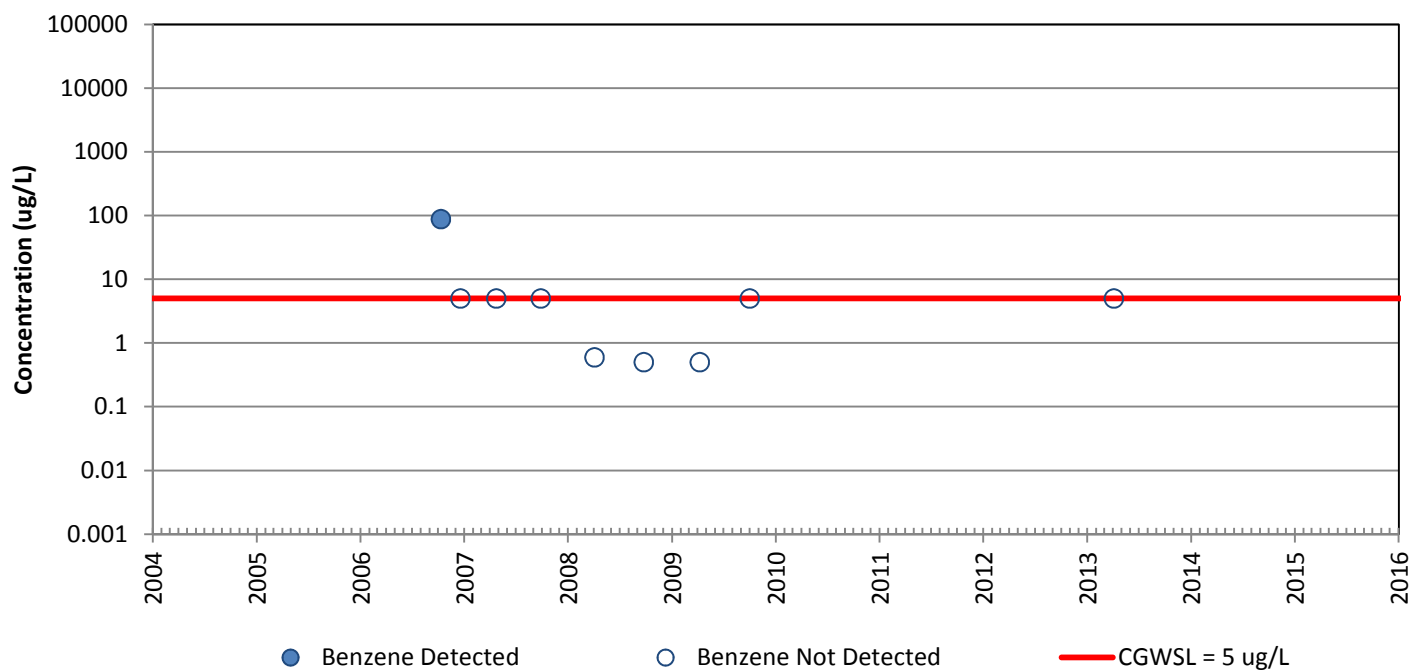


## DRO

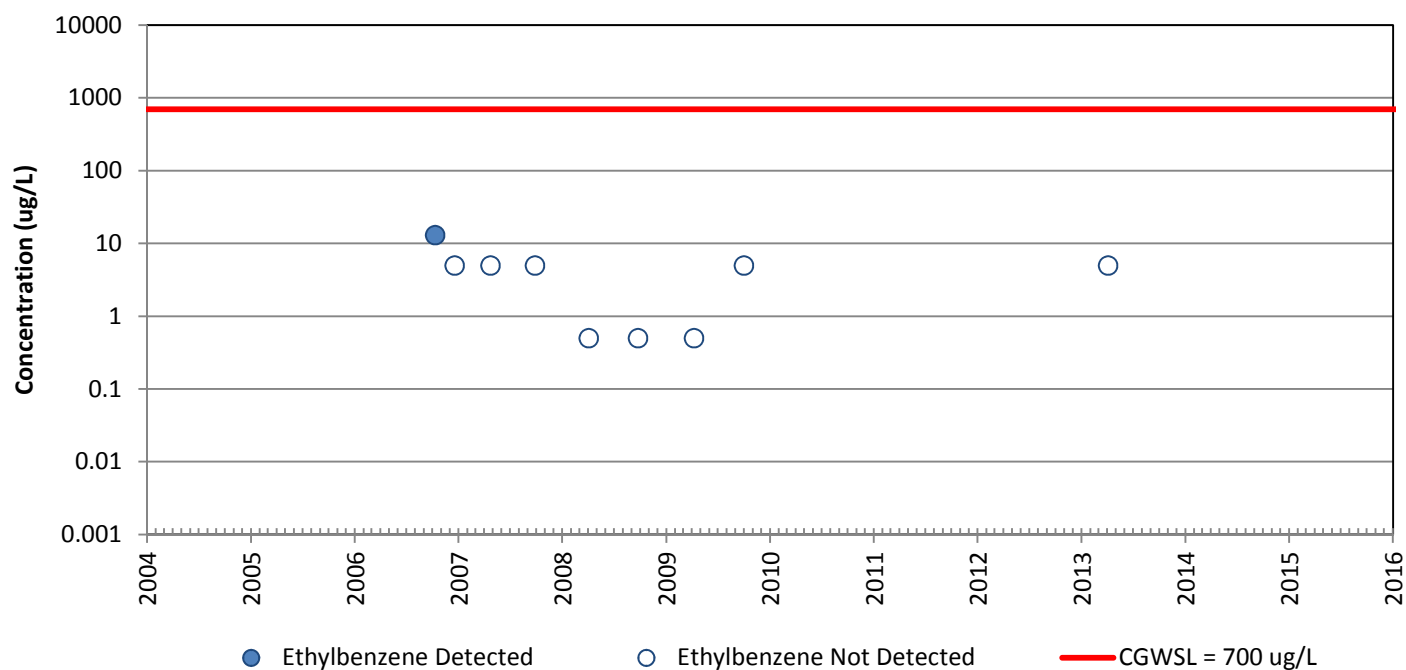


# NP-2

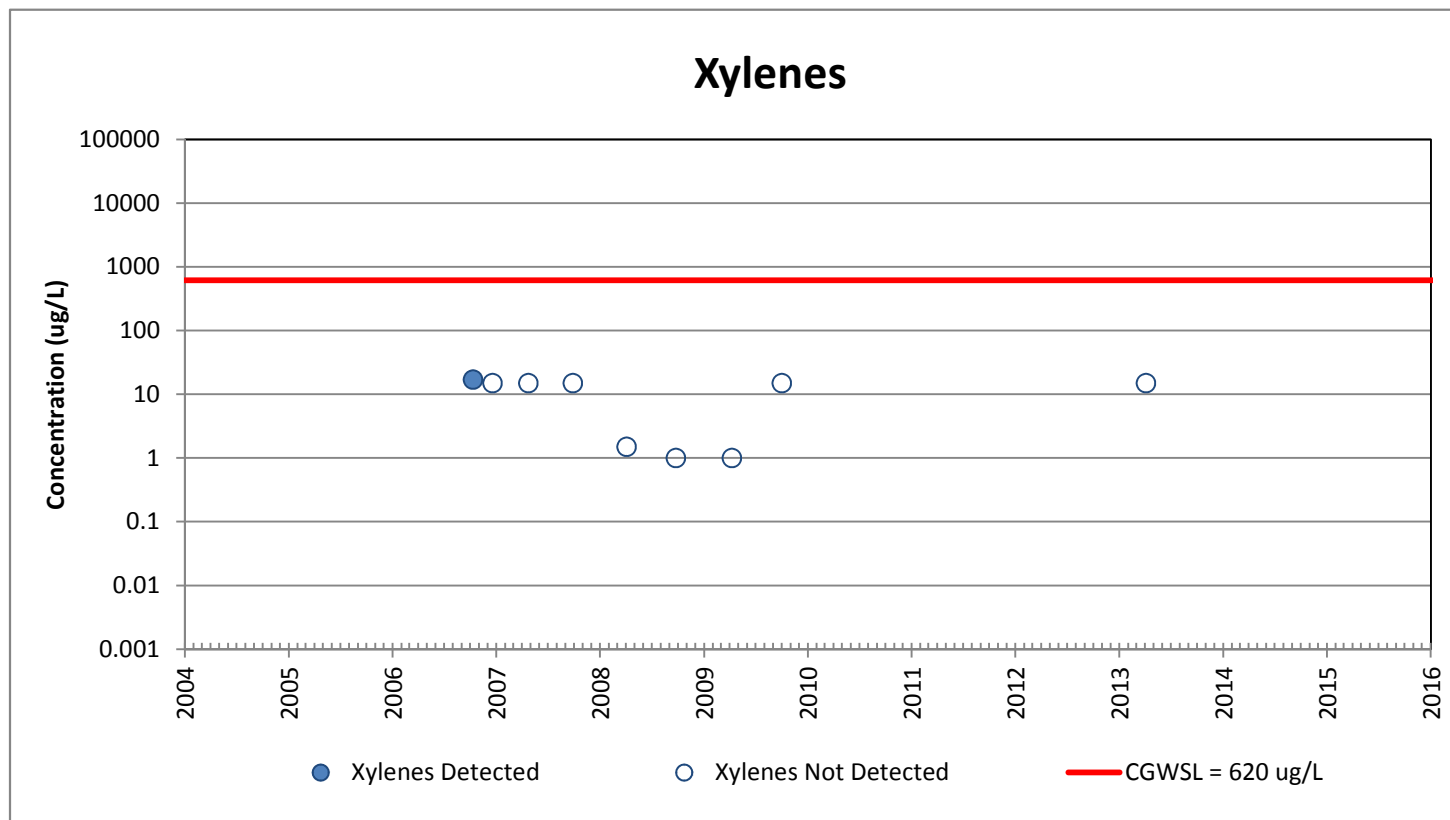
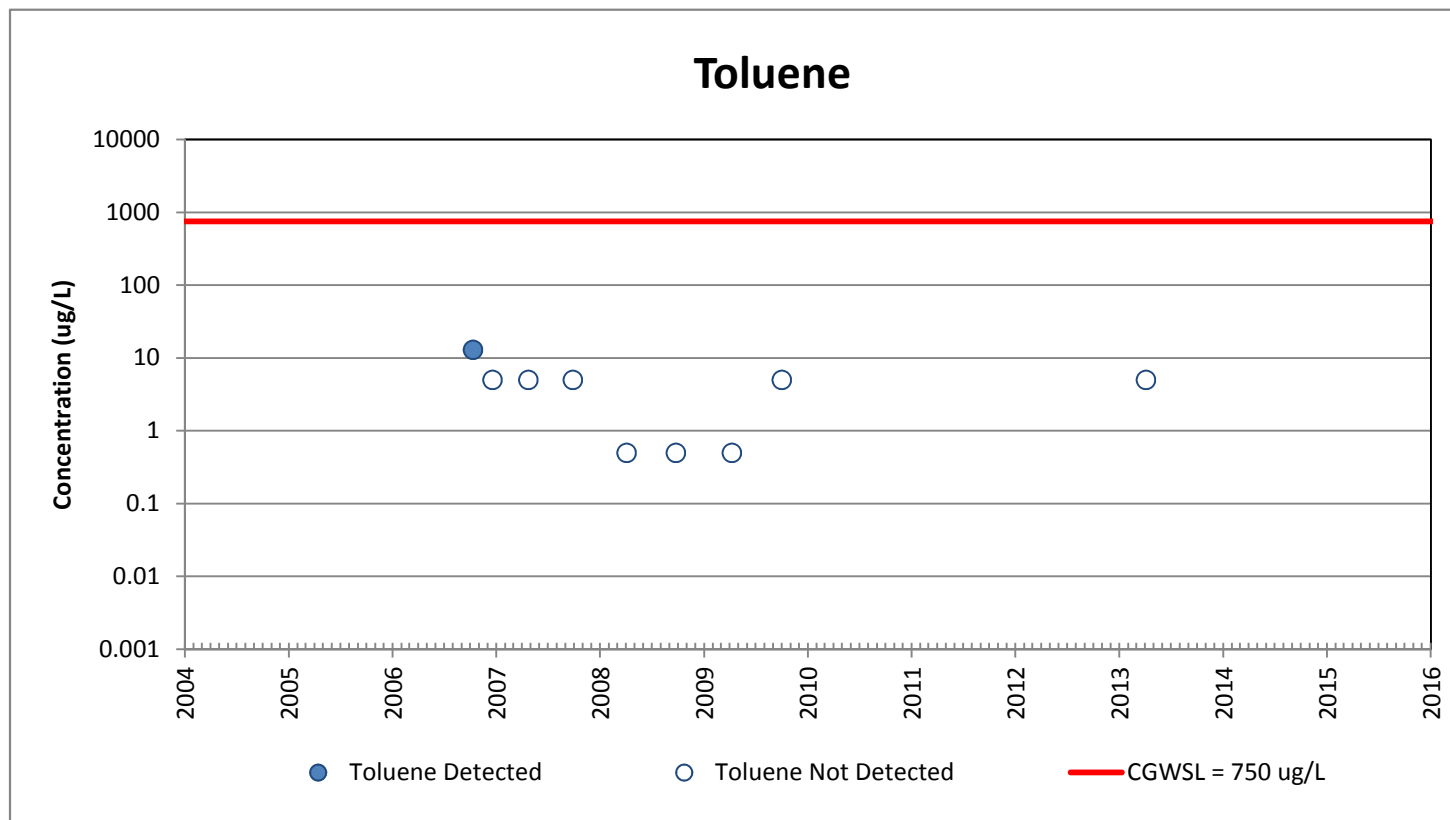
## Benzene



## Ethylbenzene

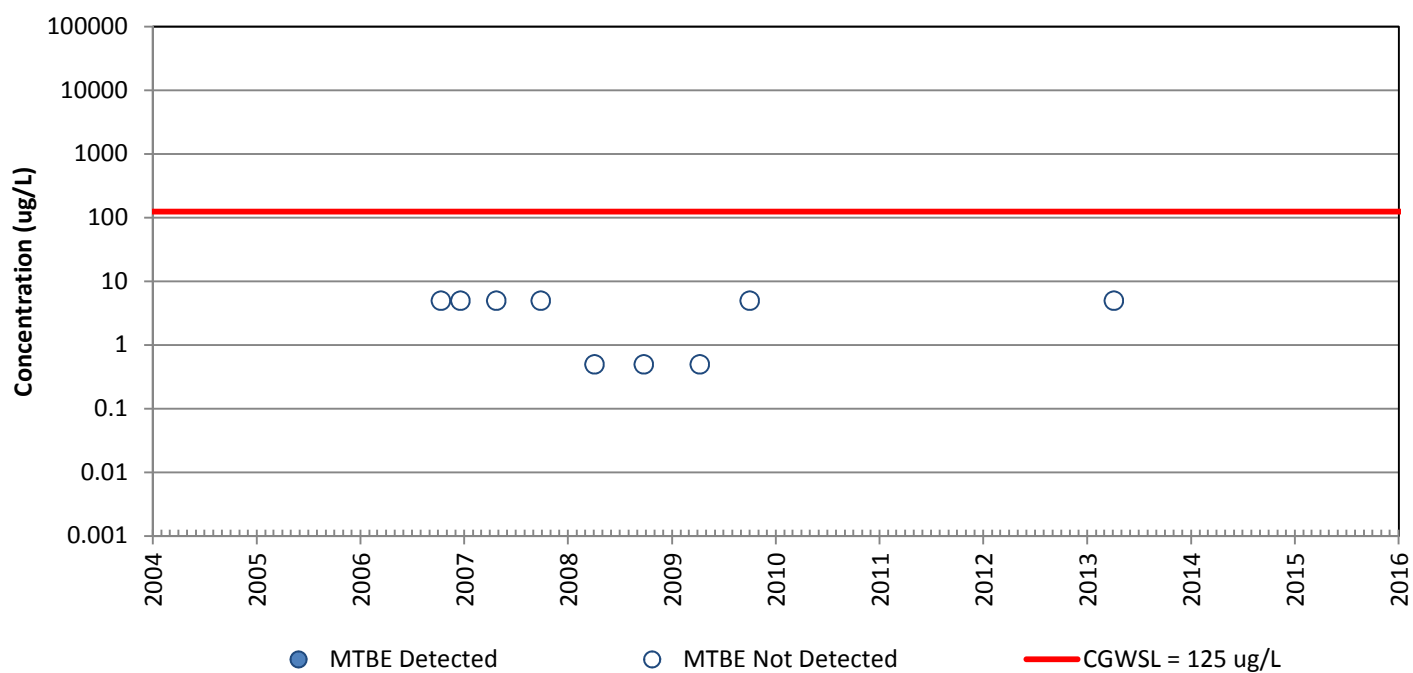


# NP-2

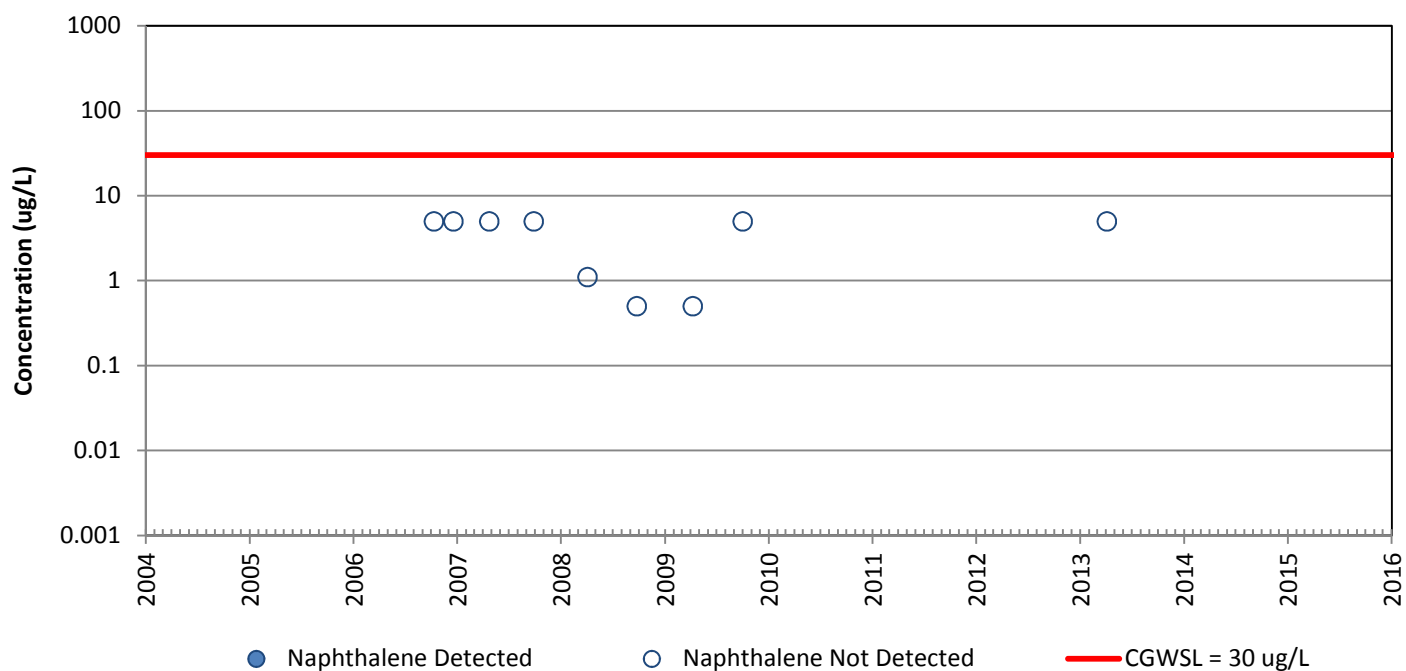


# NP-2

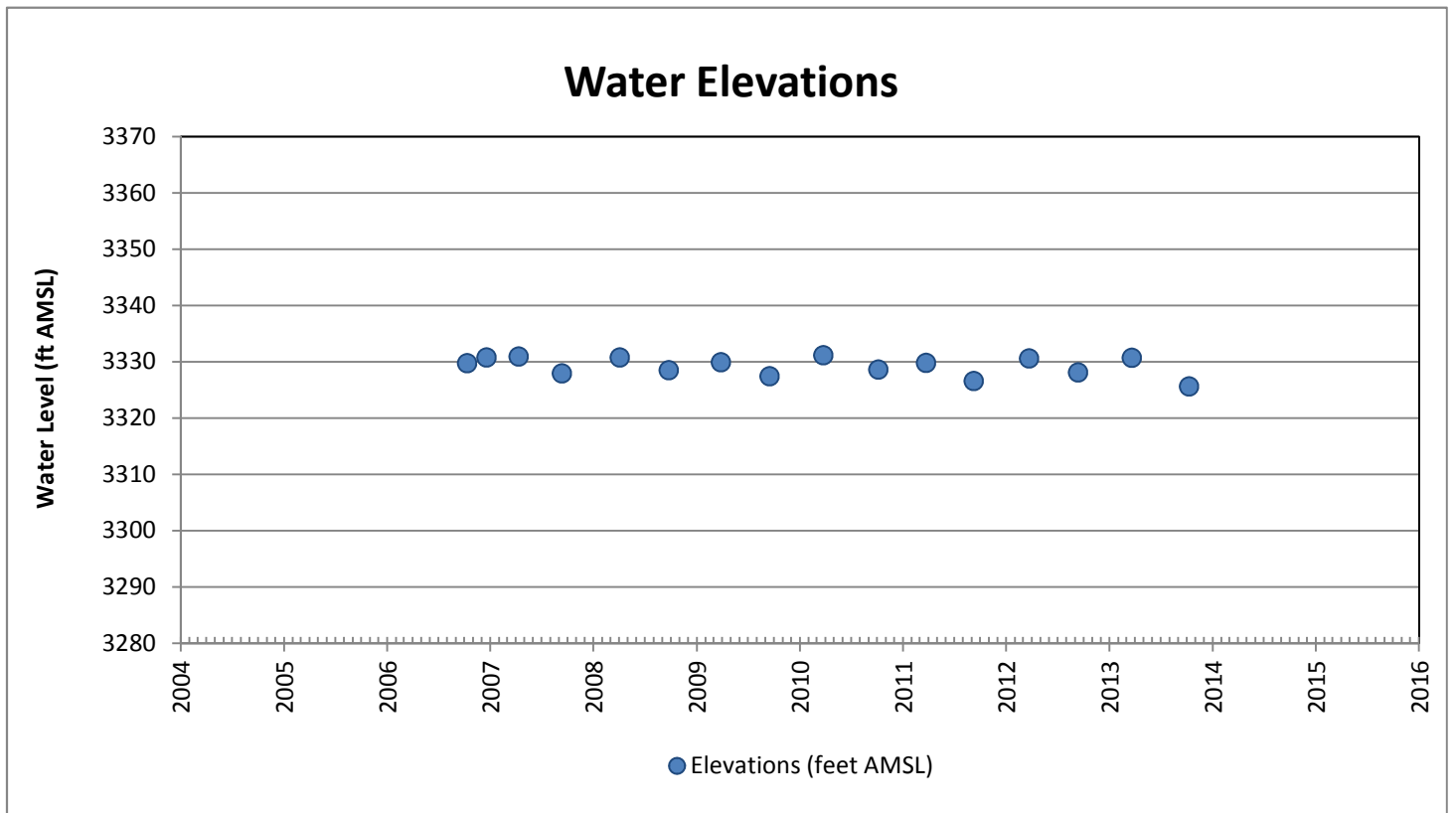
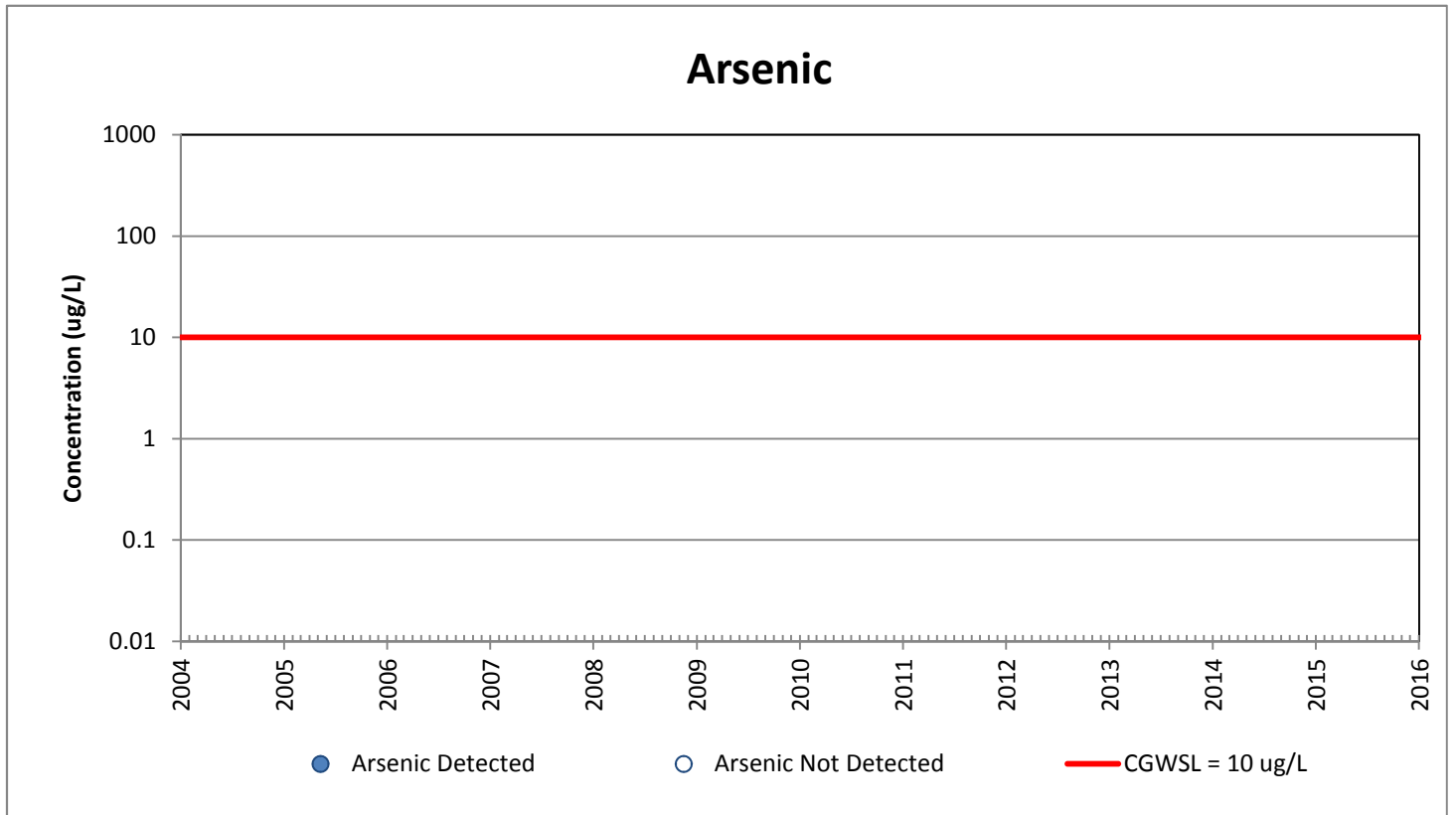
## MTBE



## Naphthalene

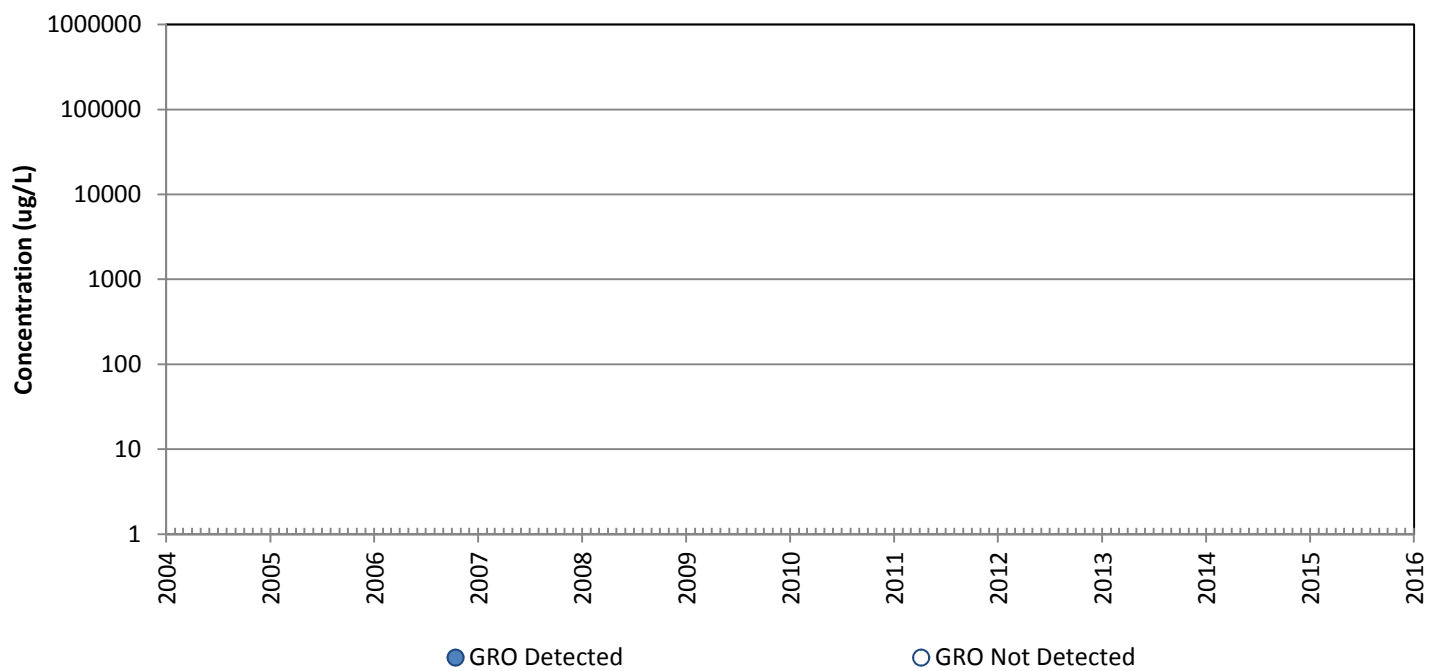


# NP-2

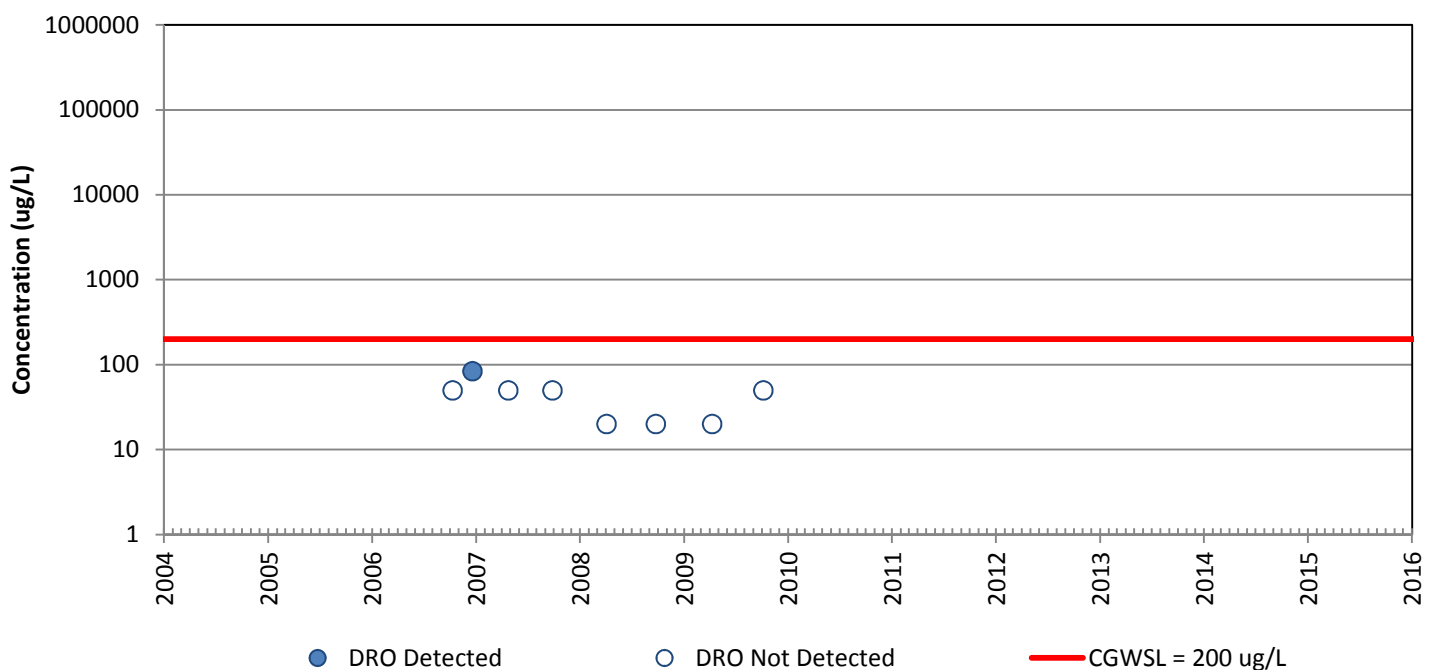


# NP-6

## GRO

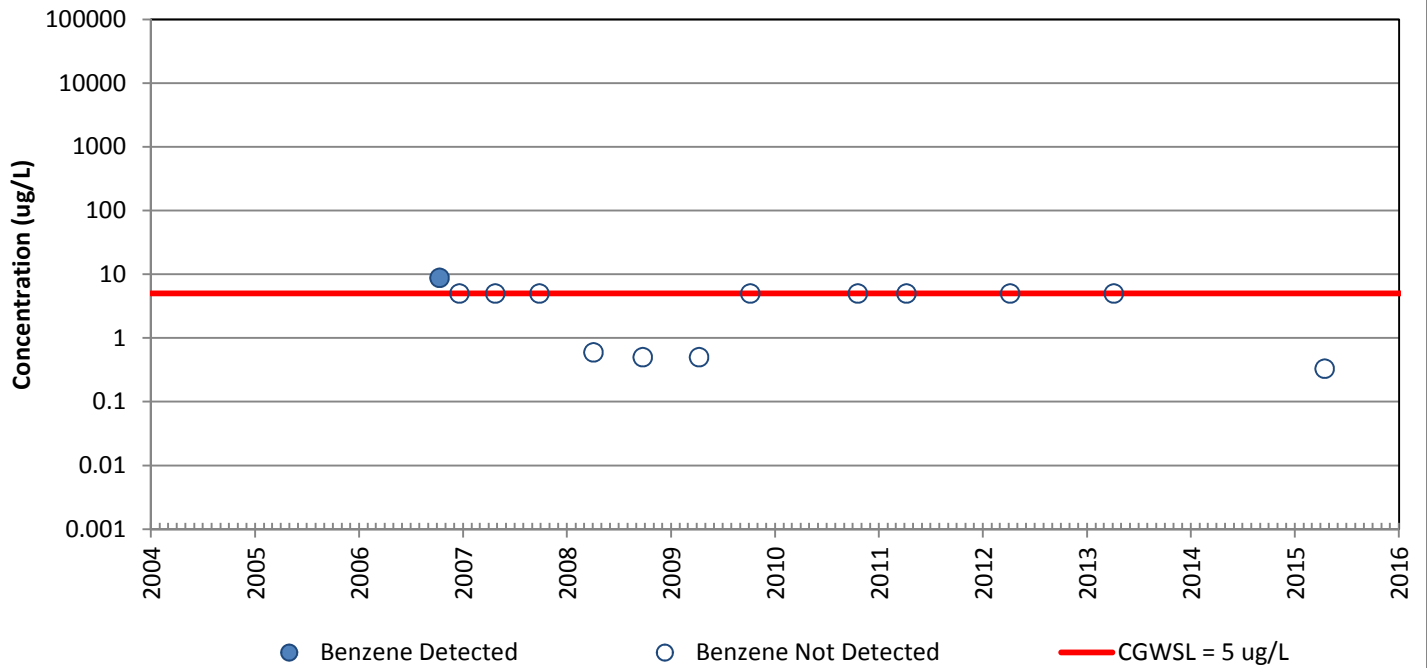


## DRO

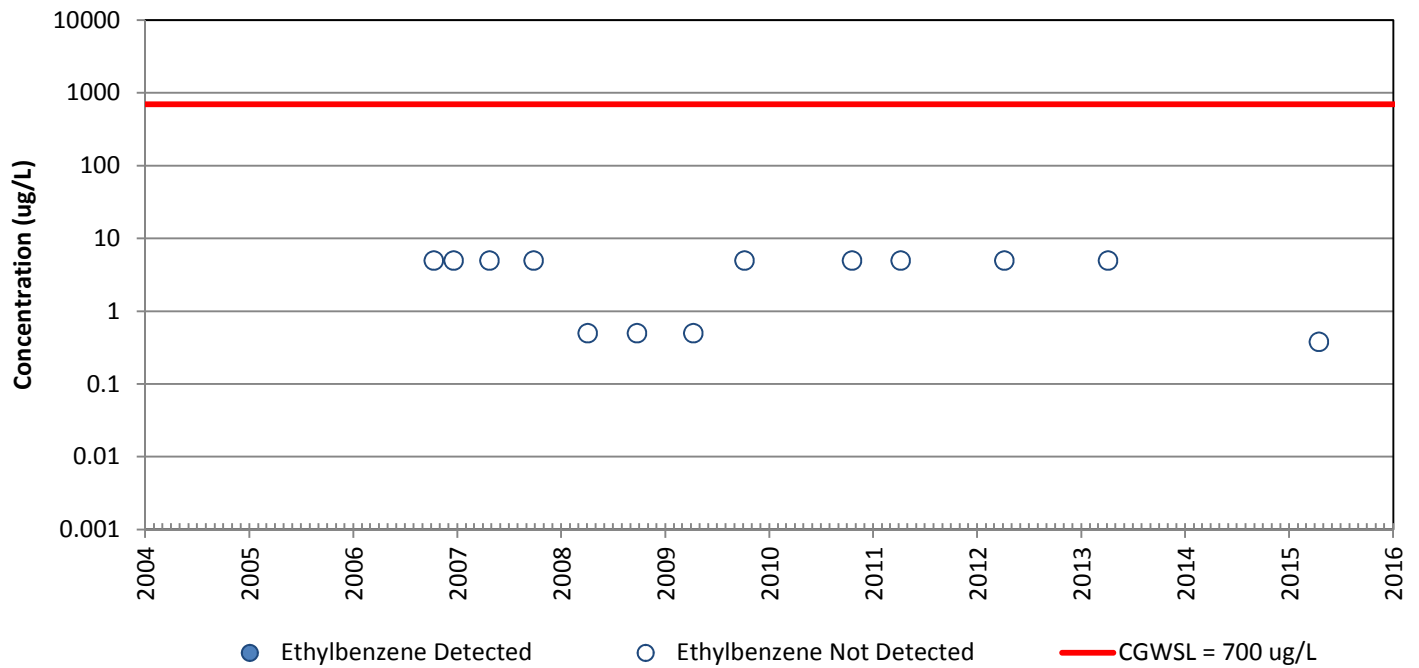


# NP-6

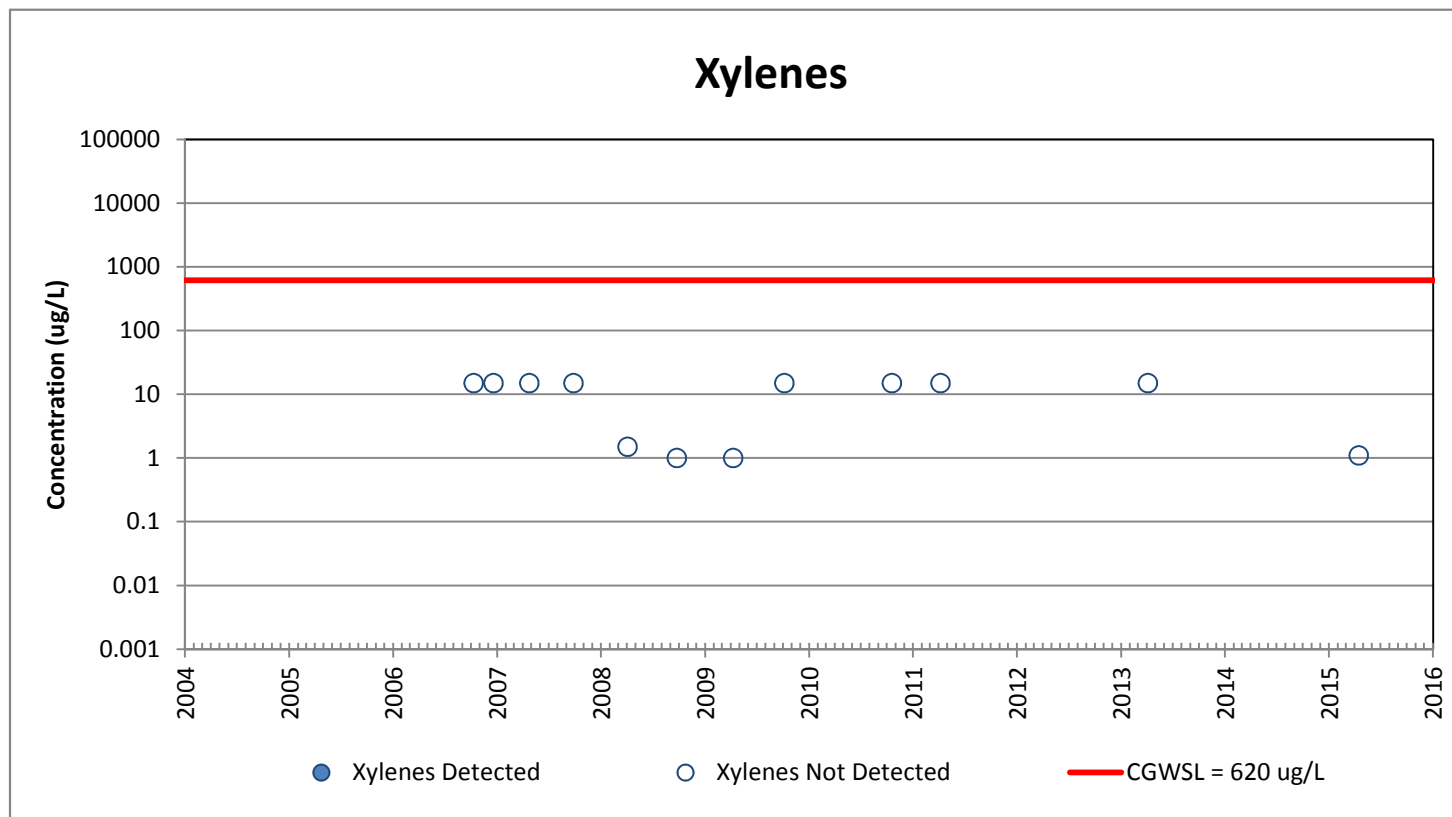
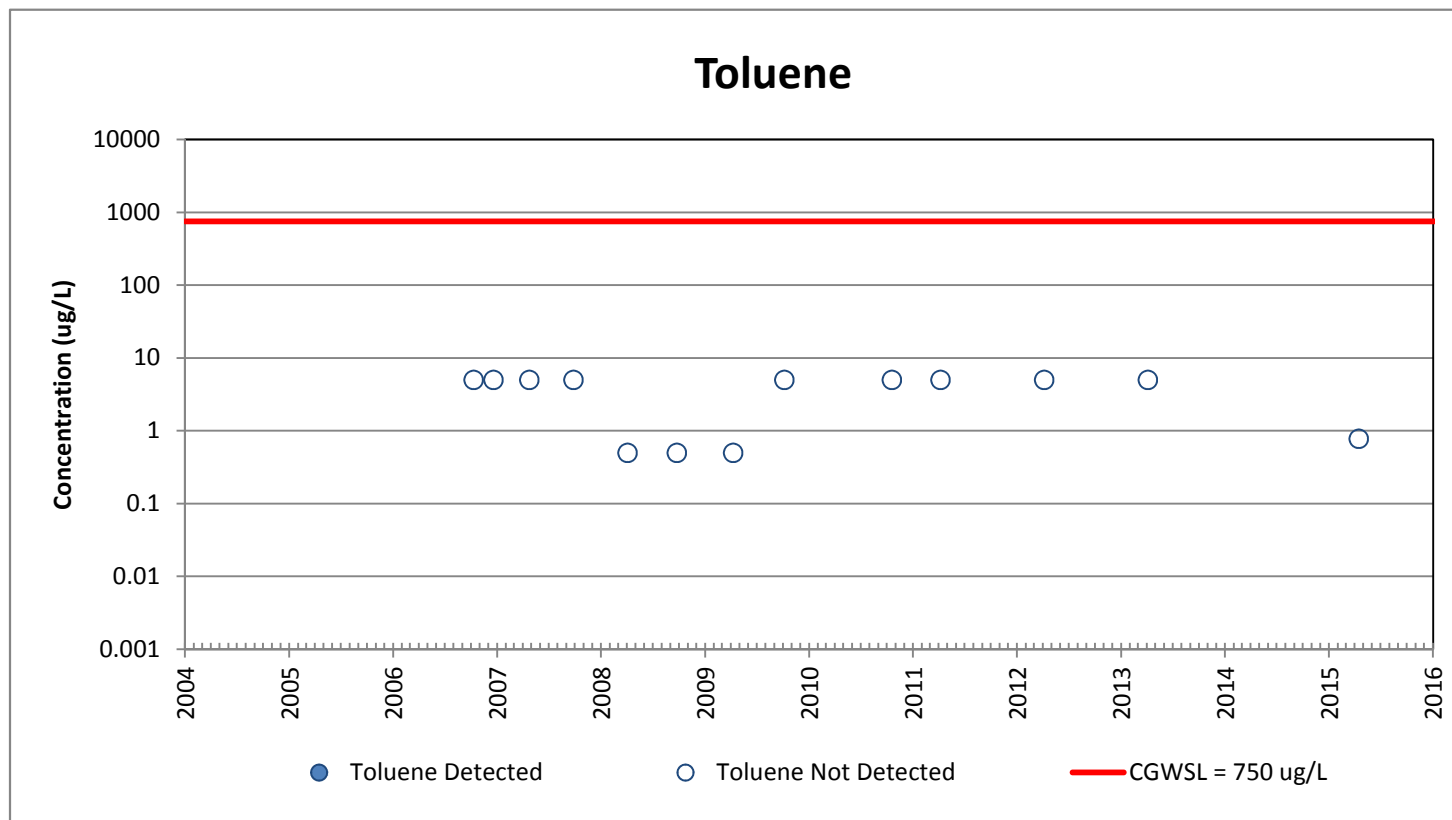
## Benzene



## Ethylbenzene

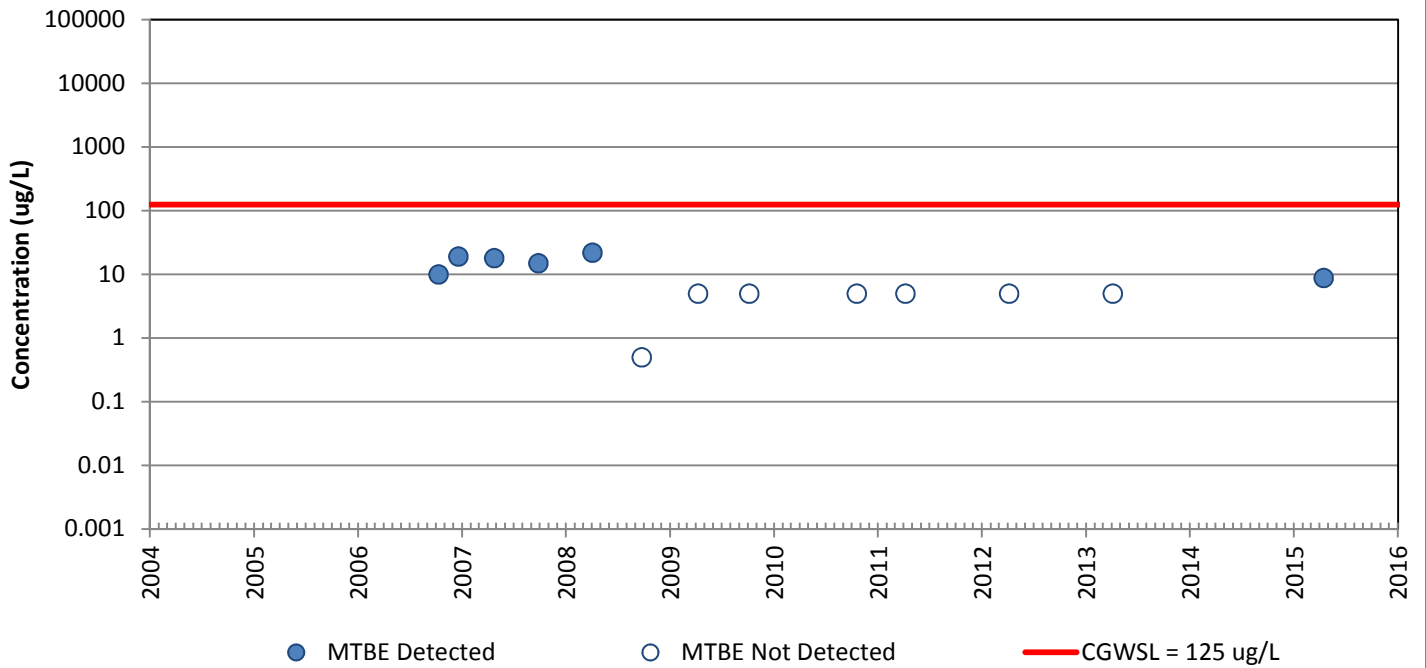


# NP-6

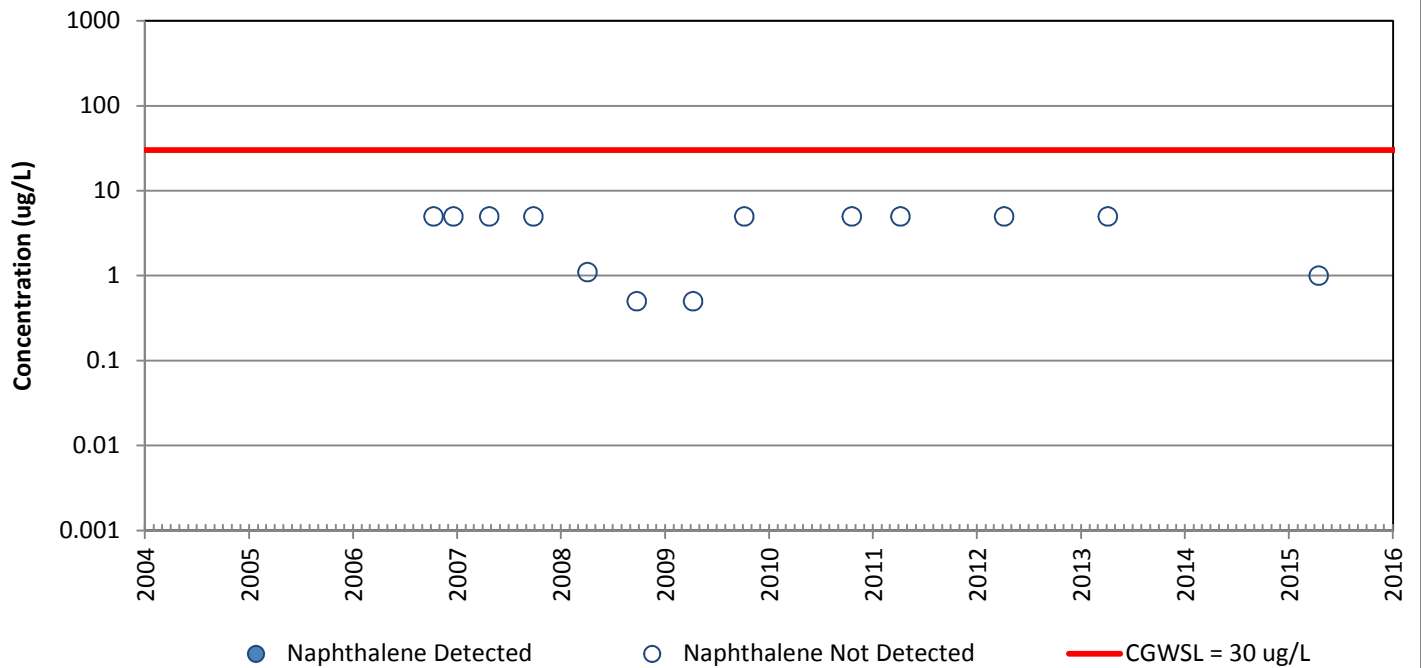


# NP-6

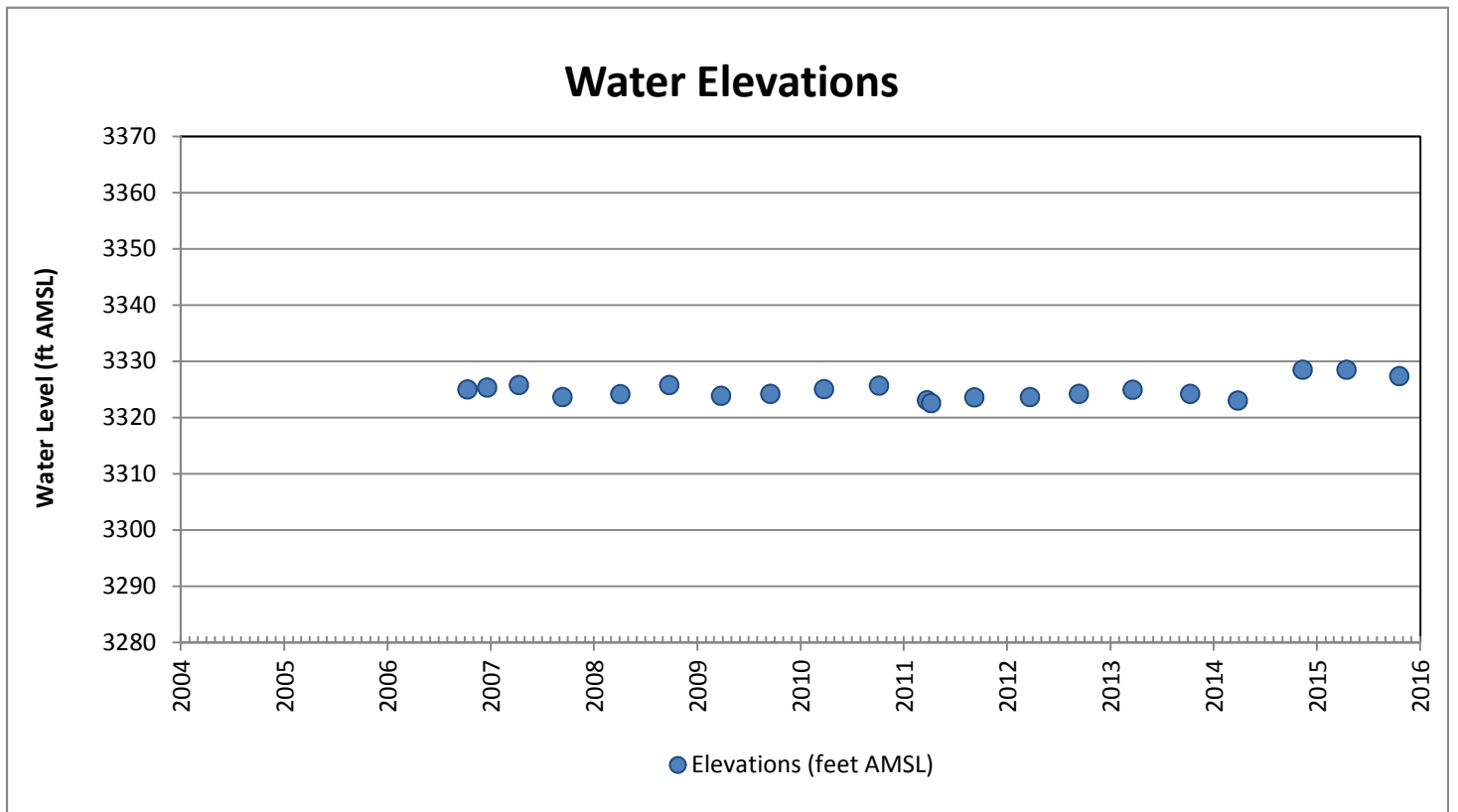
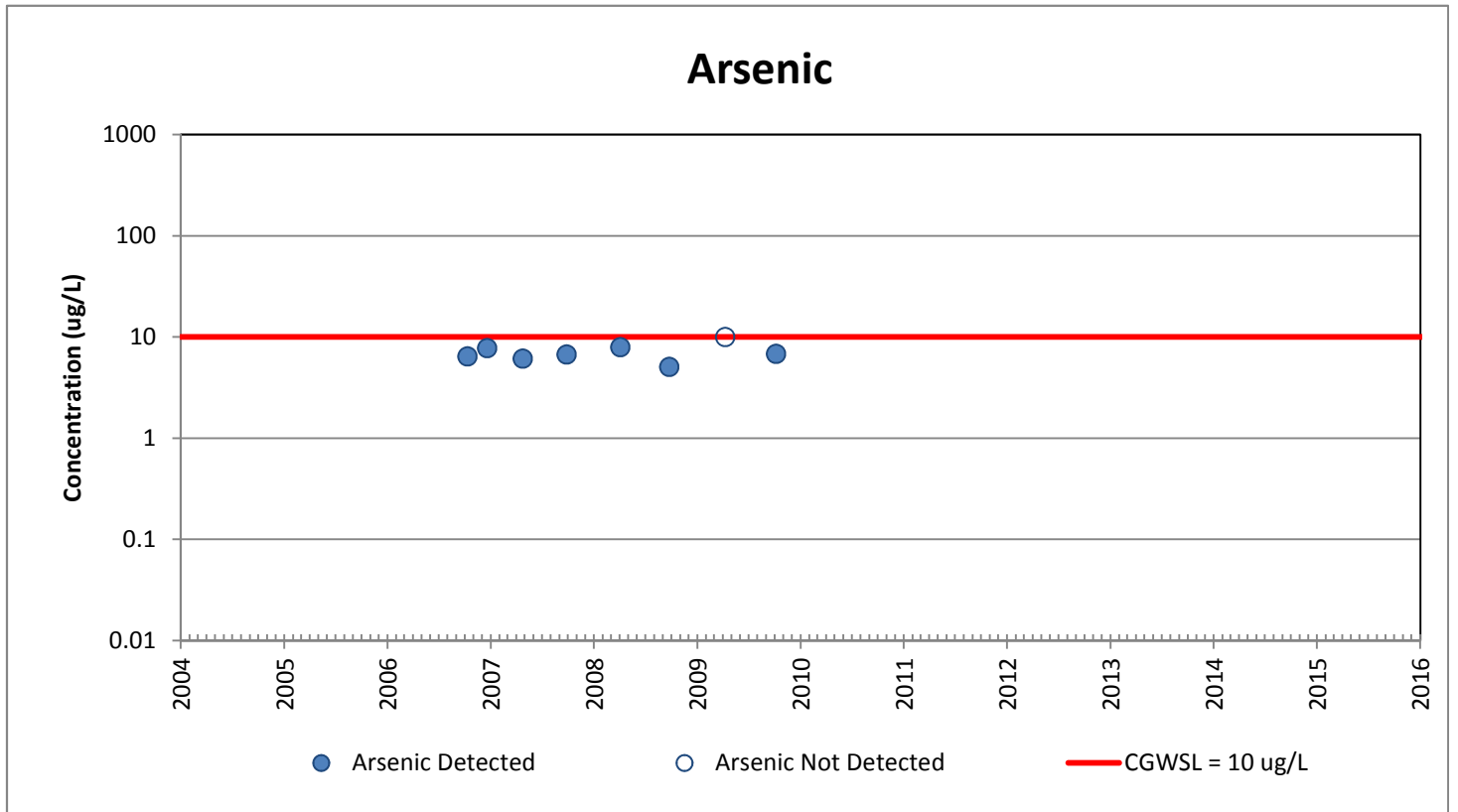
## MTBE



## Naphthalene



# NP-6



# APPENDIX D

Data Validation Reports



**DATA VALIDATION CHECKLIST****NAVAJO REFINERY  
1SA2015**

ARCADIS, Inc.  
3850 N. Causeway Blvd.  
Suite 990  
Metairie, LA 70002  
Tel. (504) 832-4174  
Fax. (504) 832-2145

|                            |                                                                                        |
|----------------------------|----------------------------------------------------------------------------------------|
| Sample Team:               | ARCADIS                                                                                |
| Sample Matrix:             | Water                                                                                  |
| Analytical Laboratory:     | ESC                                                                                    |
| Laboratory Work Order No.: | L760059                                                                                |
| Lab Project Manager:       | Pamela Langford                                                                        |
| Analyses:                  | Chloride/Fluoride/Sulfate, Nitrate/Nitrite, TDS, Metals, VOCs, TPH-GRO/DRO and Cyanide |
| QA Reporting Level:        | ARCADIS, Level II                                                                      |

Environmental  
Project:  
Navajo Refinery

Project Number:  
TX000836.0008.00004

Analytical data were evaluated in accordance with applicable USEPA SW-846 method requirements, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review" (October 1999), "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review" (July 2002), analytical method control criteria, the analytical laboratory Quality Assurance Control Limits, and professional judgment. National Functional Guidelines were used primarily to determine applicable qualification.

The data verification was performed at a Level II and included review of data package completeness, laboratory control samples and method blanks, matrix spike precision and accuracy, surrogate recoveries, and holding time compliance. Laboratory calculations were not verified. Only QA/QC results and analytical data associated with analytes/compounds of interest were reviewed for this validation. Field sampling documentation was not reviewed as a component of this validation.

Only QA/QC results and analytical data associated with analytes/compounds of interest were reviewed for this validation.

## **ANALYTICAL DATA PACKAGE DOCUMENTATION**

The following samples were included in this data validation:

| <b>SDG Number</b> | <b>Sample ID</b> | <b>Sample Date</b> | <b>Parent Sample</b> |
|-------------------|------------------|--------------------|----------------------|
| L760059           | NP-1             | 04/15/15           |                      |
| L760059           | NP-6             | 04/15/15           |                      |
| L760059           | MW-21            | 04/15/15           |                      |
| L760059           | MW-89            | 04/15/15           |                      |
| L760059           | MW-16            | 04/15/15           |                      |
| L760059           | MW-25            | 04/15/15           |                      |

# I. VOLATILE ORGANIC COMPOUNDS

| ITEMS REVIEWED                                     | REPORTED/<br>REVIEWED |     | EXCEPTIONS<br>NOTED |     | GENERAL COMMENTS<br>NOTED |     | ITEM NOT<br>REQUIRED |
|----------------------------------------------------|-----------------------|-----|---------------------|-----|---------------------------|-----|----------------------|
|                                                    | NO                    | YES | NO                  | YES | NO                        | YES |                      |
| 1. Holding times                                   |                       | X   | X                   |     | X                         |     |                      |
| 2. Reporting limits                                |                       | X   | X                   |     | X                         |     |                      |
| 3. Blanks                                          |                       |     |                     |     |                           |     |                      |
| A. Method Blanks                                   |                       | X   | X                   |     | X                         |     |                      |
| B. Equipment Blanks                                | X                     |     |                     |     |                           |     | X                    |
| C. Trip Blanks                                     | X                     |     |                     |     |                           |     | X                    |
| 4. Laboratory control sample (LCS) (%R)            |                       | X   | X                   |     |                           | X   |                      |
| 5. Laboratory control sample duplicate (LCSD) (%R) |                       | X   | X                   |     | X                         |     |                      |
| 6. LCS/LCSD (RPD)                                  |                       | X   |                     | X   |                           | X   |                      |
| 7. Matrix spike (MS) (%R)                          |                       | X   |                     | X   |                           | X   |                      |
| 8. MSD (%R)                                        |                       | X   |                     | X   |                           | X   |                      |
| 9. MS/MSD (RPD)                                    |                       | X   | X                   |     |                           | X   |                      |
| 10. Surrogate Recoveries (%R)                      |                       | X   | X                   |     | X                         |     |                      |
| 11. Field Duplicate Comparison (RPD)               | X                     |     |                     |     |                           |     | X                    |

COMMENTS: The samples were analyzed for VOCs by Method 8260B. Performance was acceptable, with the following exceptions and notes.

- 4-6. The recovery of methylene chloride was above the control limit in the LCS. The associated field samples were non-detect for this compound; therefore, qualification of the data was not warranted. The RPDs for bromoform, chlorodibromomethane, 1,2-dibromomethane, 1,2-dichloroethane, 2-hexanone, 2-butanone, methylene chloride and naphthalene. The associated field samples were qualified as estimated for these compounds.
- 7-9. Sample NP-1 was used as the MS/MSD. The recovery of styrene was below the control limit in the MS and the MSD. The parent sample was qualified as estimated for this compound.

## II. TOTAL PETROLEUM HYDROCARBONS

| ITEMS REVIEWED                                     | REPORTED/<br>REVIEWED |     | EXCEPTIONS<br>NOTED |     | GENERAL COMMENTS<br>NOTED |     | ITEM NOT<br>REQUIRED |
|----------------------------------------------------|-----------------------|-----|---------------------|-----|---------------------------|-----|----------------------|
|                                                    | NO                    | YES | NO                  | YES | NO                        | YES |                      |
| 1. Holding times                                   |                       | X   | X                   |     | X                         |     |                      |
| 2. Reporting limits                                |                       | X   | X                   |     | X                         |     |                      |
| 3. Blanks                                          |                       |     |                     |     |                           |     |                      |
| A. Method Blanks                                   |                       | X   | X                   |     | X                         |     |                      |
| B. Equipment Blanks                                | X                     |     |                     |     |                           |     | X                    |
| 4. Laboratory control sample (LCS) (%R)            |                       | X   | X                   |     | X                         |     |                      |
| 5. Laboratory control sample duplicate (LCSD) (%R) |                       | X   | X                   |     | X                         |     |                      |
| 6. LCS/LCSD (RPD)                                  |                       | X   |                     | X   |                           | X   |                      |
| 7. Matrix spike (MS) (%R)                          | X                     |     |                     |     |                           |     | X                    |
| 8. MSD (%R)                                        | X                     |     |                     |     |                           |     | X                    |
| 9. MS/MSD (RPD)                                    | X                     |     |                     |     |                           |     | X                    |
| 10. Surrogate Recoveries (%R)                      |                       | X   | X                   |     | X                         |     |                      |
| 11. Field Duplicate Comparison (RPD)               | X                     |     |                     |     |                           |     | X                    |

COMMENTS: The samples were analyzed for TPH by Method 8015. Performance was acceptable, with the following exceptions and notes.

No qualification was necessary.

### III. METALS

| ITEMS REVIEWED                          | REPORTED/<br>REVIEWED |     | EXCEPTIONS<br>NOTED |     | GENERAL COMMENTS<br>NOTED |     | REPORTED/<br>REVIEWED |
|-----------------------------------------|-----------------------|-----|---------------------|-----|---------------------------|-----|-----------------------|
|                                         | NO                    | YES | NO                  | YES | NO                        | YES |                       |
| 1. Holding times                        |                       | X   | X                   |     | X                         |     |                       |
| 2. Reporting limits                     |                       | X   | X                   |     | X                         |     |                       |
| 3. Blanks                               |                       |     |                     |     |                           |     |                       |
| A. Method Blanks                        |                       | X   | X                   |     |                           | X   |                       |
| B. Field Blanks                         | X                     |     |                     |     |                           |     | X                     |
| C. Equipment Blank                      | X                     |     |                     |     |                           |     | X                     |
| 4. Laboratory control sample (LCS) (%R) |                       | X   | X                   |     | X                         |     |                       |
| 5. LCSD (% R)                           |                       | X   | X                   |     | X                         |     |                       |
| 6. LCS/LCSD (RPD)                       |                       | X   | X                   |     | X                         |     |                       |
| 7. Matrix spike (MS) (%R)               |                       | X   |                     | X   |                           | X   |                       |
| 8. MSD (%R)                             |                       | X   | X                   |     |                           | X   |                       |
| 9. MS/MSD (RPD)                         |                       | X   | X                   |     |                           | X   |                       |
| 10. Field/Lab Duplicate (RPD)           | X                     |     |                     |     |                           |     | X                     |
| 11. Serial Dilution (%D)                | X                     |     |                     |     |                           |     | X                     |
| 12. Total vs. Dissolved                 |                       | X   | X                   |     | X                         |     |                       |

COMMENTS: The samples were analyzed for metals by Methods 6020. Performance was acceptable, with the following exceptions and notes.

- 3A Calcium, manganese and dissolved manganese were detected in the method blanks. The associated field samples were greater than ten times the blank values; therefore, qualification of the data was not warranted.
- 7-9. Sample NP-1 was used as the MS/MSD. The recovery of manganese was below the control limit in the MS. All field samples were qualified as estimated for manganese.

## VI. GENERAL CHEMISTRY

| ITEMS REVIEWED                          | REPORTED/<br>REVIEWED |     | EXCEPTIONS<br>NOTED |     | GENERAL COMMENTS<br>NOTED |     | ITEM NOT<br>REQUIRED |
|-----------------------------------------|-----------------------|-----|---------------------|-----|---------------------------|-----|----------------------|
|                                         | NO                    | YES | NO                  | YES | NO                        | YES |                      |
| 1. Holding times                        |                       | X   | X                   |     | X                         |     |                      |
| 2. Reporting limits                     |                       | X   | X                   |     | X                         |     |                      |
| 3. Blanks                               |                       |     |                     |     |                           |     |                      |
| A. Method Blanks                        |                       | X   | X                   |     | X                         |     |                      |
| B. Field Blanks                         | X                     |     |                     |     |                           |     | X                    |
| C. Equipment Blank                      | X                     |     |                     |     |                           |     | X                    |
| 4. Laboratory control sample (LCS) (%R) |                       | X   | X                   |     | X                         |     |                      |
| 5. LCSD (% R)                           |                       | X   | X                   |     | X                         |     |                      |
| 6. LCS/LCSD (RPD)                       |                       | X   | X                   |     | X                         |     |                      |
| 7. Matrix spike (MS) (%R)               |                       | X   |                     | X   |                           | X   |                      |
| 8. MSD (%R)                             |                       | X   |                     | X   |                           | X   |                      |
| 9. MS/MSD (RPD)                         |                       | X   | X                   |     |                           | X   |                      |
| 10. Field/Lab Duplicate (RPD)           |                       | X   | X                   |     | X                         |     |                      |

COMMENTS: The samples were analyzed by methods 353.2, 9056 and 2540C. Performance was acceptable, with the following exceptions and notes.

- 7-9. Sample MW-25 was used as the MS/MSD for nitrate/nitrite. The recovery of nitrate/nitrite was above the control limit in the MS and the MSD. Nitrate/nitrite was detected in the parent sample and therefore qualified as estimated.
10. Samples MW-16 was used as the laboratory duplicate for nitrate/nitrite. The RPD was acceptable.

**Qualifier Definitions:**

J – Result is considered to be estimated at the value reported.

UJ – Result is considered not detected but estimated due to QC deficiencies.

UB – Non-detect at the Reporting Limit or at the concentration reported if greater than the RL due to associated blank contamination.

R – Result is qualified as unusable, data point is rejected.

Explanation/Notes:

| Sample ID | Parameter            | Result | Units | Qualifier | Reason       |
|-----------|----------------------|--------|-------|-----------|--------------|
| MW-25     | Nitrate/nitrite      | 97.4   | mg/L  | J         | MS/MSD %R    |
|           | Manganese            | 582    | mg/L  | J         | MS %R        |
|           | Bromoform            | <1.0   | mg/L  | UJ        | LCS/LCSD RPD |
|           | Chlorodibromomethane | <1.0   | mg/L  | UJ        | LCS/LCSD RPD |
|           | 1,2-Dibromoethane    | <1.0   | mg/L  | UJ        | LCS/LCSD RPD |
|           | 1,2-Dichloroethane   | <1.0   | mg/L  | UJ        | LCS/LCSD RPD |
|           | 2-Hexanone           | <10    | mg/L  | UJ        | LCS/LCSD RPD |
|           | 2-Butanone           | <10    | mg/L  | UJ        | LCS/LCSD RPD |
|           | Methylene chloride   | <5     | mg/L  | UJ        | LCS/LCSD RPD |
|           | Naphthalene          | <5     | mg/L  | UJ        | MS/MSD RPD   |
| MW-21     | Manganese            | 323    | mg/L  | J         | MS %R        |
|           | Bromoform            | <1.0   | mg/L  | UJ        | LCS/LCSD RPD |
|           | Chlorodibromomethane | <1.0   | mg/L  | UJ        | LCS/LCSD RPD |
|           | 1,2-Dibromoethane    | <1.0   | mg/L  | UJ        | LCS/LCSD RPD |
|           | 1,2-Dichloroethane   | <1.0   | mg/L  | UJ        | LCS/LCSD RPD |
|           | 2-Hexanone           | <10    | mg/L  | UJ        | LCS/LCSD RPD |
|           | 2-Butanone           | <10    | mg/L  | UJ        | LCS/LCSD RPD |
|           | Methylene chloride   | <5     | mg/L  | UJ        | LCS/LCSD RPD |
|           | Naphthalene          | <5     | mg/L  | UJ        | LCS/LCSD RPD |
| MW-89     | Manganese            | 71     | mg/L  | J         | MS %R        |
|           | Bromoform            | <1.0   | mg/L  | UJ        | LCS/LCSD RPD |
|           | Chlorodibromomethane | <1.0   | mg/L  | UJ        | LCS/LCSD RPD |
|           | 1,2-Dibromoethane    | <1.0   | mg/L  | UJ        | LCS/LCSD RPD |
|           | 1,2-Dichloroethane   | <1.0   | mg/L  | UJ        | LCS/LCSD RPD |
|           | 2-Hexanone           | <10    | mg/L  | UJ        | LCS/LCSD RPD |
|           | 2-Butanone           | <10    | mg/L  | UJ        | LCS/LCSD RPD |
|           | Methylene chloride   | <5     | mg/L  | UJ        | LCS/LCSD RPD |
|           | Naphthalene          | <5     | mg/L  | UJ        | LCS/LCSD RPD |
| MW-16     | Manganese            | 95     | mg/L  | J         | MS %R        |
|           | Bromoform            | <1.0   | mg/L  | UJ        | LCS/LCSD RPD |
|           | Chlorodibromomethane | <1.0   | mg/L  | UJ        | LCS/LCSD RPD |
|           | 1,2-Dibromoethane    | <1.0   | mg/L  | UJ        | LCS/LCSD RPD |
|           | 1,2-Dichloroethane   | <1.0   | mg/L  | UJ        | LCS/LCSD RPD |
|           | 2-Hexanone           | <10    | mg/L  | UJ        | LCS/LCSD RPD |
|           | 2-Butanone           | <10    | mg/L  | UJ        | LCS/LCSD RPD |
|           | Methylene chloride   | <5     | mg/L  | UJ        | LCS/LCSD RPD |
|           | Naphthalene          | <5     | mg/L  | UJ        | LCS/LCSD RPD |

| Sample ID | Parameter            | Result | Units | Qualifier | Reason       |
|-----------|----------------------|--------|-------|-----------|--------------|
| NP-1      | Styrene              | <1.0   | mg/L  | UJ        | MS/MSD %R    |
|           | Methylene chloride   | <5     | mg/L  | UJ        | LCS/LCSD RPD |
| NP-6      | Bromoform            | <1.0   | mg/L  | UJ        | MS/MSD RPD   |
|           | Chlorodibromomethane | <1.0   | mg/L  | UJ        | MS/MSD RPD   |
|           | 1,2-Dibromoethane    | <1.0   | mg/L  | UJ        | MS/MSD RPD   |
|           | 1,2-Dichloroethane   | <1.0   | mg/L  | UJ        | MS/MSD RPD   |
|           | 2-Hexanone           | <10    | mg/L  | UJ        | MS/MSD RPD   |
|           | 2-Butanone           | <10    | mg/L  | UJ        | MS/MSD RPD   |
|           | Methylene chloride   | <5     | mg/L  | UJ        | MS/MSD RPD   |
|           | Naphthalene          | <5     | mg/L  | UJ        | MS/MSD RPD   |

VALIDATION PERFORMED BY:

SIGNATURE: Rachelle Borne

DATE: January 17, 2016

PEER REVIEW:



DATE: January 19, 2016

**DATA VALIDATION CHECKLIST****NAVAJO REFINERY  
1SA2015**

ARCADIS, Inc.  
3850 N. Causeway Blvd.  
Suite 990  
Metairie, LA 70002  
Tel. (504) 832-4174  
Fax. (504) 832-2145

|                            |                                                                                        |
|----------------------------|----------------------------------------------------------------------------------------|
| Sample Team:               | ARCADIS                                                                                |
| Sample Matrix:             | Water                                                                                  |
| Analytical Laboratory:     | ESC                                                                                    |
| Laboratory Work Order No.: | L760264                                                                                |
| Lab Project Manager:       | Pamela Langford                                                                        |
| Analyses:                  | Chloride/Fluoride/Sulfate, Nitrate/Nitrite, TDS, Metals, VOCs, TPH-GRO/DRO and Cyanide |
| QA Reporting Level:        | ARCADIS, Level II                                                                      |

Environmental  
Project:  
Navajo Refinery

Project Number:  
TX000836.0008.00004

Analytical data were evaluated in accordance with applicable USEPA SW-846 method requirements, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review" (October 1999), "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review" (July 2002), analytical method control criteria, the analytical laboratory Quality Assurance Control Limits, and professional judgment. National Functional Guidelines were used primarily to determine applicable qualification.

The data verification was performed at a Level II and included review of data package completeness, laboratory control samples and method blanks, matrix spike precision and accuracy, surrogate recoveries, and holding time compliance. Laboratory calculations were not verified. Only QA/QC results and analytical data associated with analytes/compounds of interest were reviewed for this validation. Field sampling documentation was not reviewed as a component of this validation.

Only QA/QC results and analytical data associated with analytes/compounds of interest were reviewed for this validation.

## **ANALYTICAL DATA PACKAGE DOCUMENTATION**

The following samples were included in this data validation:

| <b>SDG Number</b> | <b>Sample ID</b>  | <b>Sample Date</b> | <b>Parent Sample</b> |
|-------------------|-------------------|--------------------|----------------------|
| L760264           | MW-28             | 04/16/15           |                      |
| L760264           | MW-59             | 04/16/15           |                      |
| L760264           | MW-60             | 04/16/15           |                      |
| L760264           | MW-107            | 04/16/15           |                      |
| L760264           | MW-128            | 04/16/15           |                      |
| L760264           | MW-125            | 04/16/15           |                      |
| L760264           | MW-116            | 04/16/15           |                      |
| L760264           | MW-115            | 04/16/15           |                      |
| L760264           | MW-114            | 04/16/15           |                      |
| L760264           | MW-48             | 04/17/15           |                      |
| L760264           | MW-130            | 04/17/15           |                      |
| L760264           | MW-52             | 04/17/15           |                      |
| L760264           | MW-109            | 04/17/15           |                      |
| L760264           | MW-110            | 04/17/15           |                      |
| L760264           | UG-2              | 04/17/15           |                      |
| L760264           | UG-3R             | 04/17/15           |                      |
| L760264           | UG-1              | 04/17/15           |                      |
| L760264           | DUP-REST-04       | 04/16/15           | MW-60                |
| L760264           | EB-REST-04        | 04/16/15           |                      |
| L760264           | TRIPBLANK-REST-03 | 04/16/15           |                      |

## I. VOLATILE ORGANIC COMPOUNDS

| ITEMS REVIEWED                                     | REPORTED/<br>REVIEWED |     | EXCEPTIONS<br>NOTED |     | GENERAL COMMENTS<br>NOTED |     | ITEM NOT<br>REQUIRED |
|----------------------------------------------------|-----------------------|-----|---------------------|-----|---------------------------|-----|----------------------|
|                                                    | NO                    | YES | NO                  | YES | NO                        | YES |                      |
| 1. Holding times                                   |                       | X   | X                   |     | X                         |     |                      |
| 2. Reporting limits                                |                       | X   | X                   |     | X                         |     |                      |
| 3. Blanks                                          |                       |     |                     |     |                           |     |                      |
| A. Method Blanks                                   |                       | X   | X                   |     |                           | X   |                      |
| B. Equipment Blanks                                |                       | X   | X                   |     |                           | X   |                      |
| C. Trip Blanks                                     |                       | X   | X                   |     | X                         |     |                      |
| 4. Laboratory control sample (LCS) (%R)            |                       | X   | X                   |     | X                         |     |                      |
| 5. Laboratory control sample duplicate (LCSD) (%R) |                       | X   | X                   |     | X                         |     |                      |
| 6. LCS/LCSD (RPD)                                  |                       | X   | X                   |     | X                         |     |                      |
| 7. Matrix spike (MS) (%R)                          |                       | X   | X                   |     |                           | X   |                      |
| 8. MSD (%R)                                        |                       | X   | X                   |     |                           | X   |                      |
| 9. MS/MSD (RPD)                                    |                       | X   |                     | X   |                           | X   |                      |
| 10. Surrogate Recoveries (%R)                      |                       | X   | X                   |     |                           | X   |                      |
| 11. Field Duplicate Comparison (RPD)               |                       | X   |                     | X   |                           | X   |                      |

COMMENTS: The samples were analyzed for VOCs by Method 8260B. Performance was acceptable, with the following exceptions and notes.

- 3A. Trichloroethene was detected in the method blank. The associated field samples were non-detect for this compound; therefore, qualification of the data was not warranted.
- 3B. Chloroform was detected in the equipment blank. The associated field samples were greater than five times the blank value; therefore, qualification of the data was not warranted.
- 7-9. Sample EB-REST-04 was used as the MS/MSD. The RPDs for chloromethane and methylene chloride were above the control limit. The parent sample was qualified as estimated for these compounds.  
  
Samples MW-60 and MW-28 were used as the MS/MSDs. The recoveries and RPDs were acceptable.
- 10. One surrogate recovery was above the control limit in samples MW-114 and UG-1. Both samples were non-detect for all VOCs; therefore, qualification of the data was not warranted.
- 11. Sample DUP-REST-04 was collected as a field duplicate of MW-60. The RPDs for benzene and isopropylbenzene were above the 40% control limit. The parent and the duplicate were qualified as estimated for these compounds.

## II. TOTAL PETROLEUM HYDROCARBONS

| ITEMS REVIEWED                                     | REPORTED/<br>REVIEWED |     | EXCEPTIONS<br>NOTED |     | GENERAL COMMENTS<br>NOTED |     | ITEM NOT<br>REQUIRED |
|----------------------------------------------------|-----------------------|-----|---------------------|-----|---------------------------|-----|----------------------|
|                                                    | NO                    | YES | NO                  | YES | NO                        | YES |                      |
| 1. Holding times                                   |                       | X   | X                   |     | X                         |     |                      |
| 2. Reporting limits                                |                       | X   | X                   |     | X                         |     |                      |
| 3. Blanks                                          |                       |     |                     |     |                           |     |                      |
| A. Method Blanks                                   |                       | X   | X                   |     | X                         |     |                      |
| B. Equipment Blanks                                |                       | X   |                     | X   |                           | X   |                      |
| 4. Laboratory control sample (LCS) (%R)            |                       | X   | X                   |     | X                         |     |                      |
| 5. Laboratory control sample duplicate (LCSD) (%R) |                       | X   | X                   |     | X                         |     |                      |
| 6. LCS/LCSD (RPD)                                  |                       | X   |                     | X   |                           | X   |                      |
| 7. Matrix spike (MS) (%R)                          |                       | X   | X                   |     |                           | X   |                      |
| 8. MSD (%R)                                        |                       | X   | X                   |     |                           | X   |                      |
| 9. MS/MSD (RPD)                                    |                       | X   | X                   |     |                           | X   |                      |
| 10. Surrogate Recoveries (%R)                      |                       | X   | X                   |     | X                         |     |                      |
| 11. Field Duplicate Comparison (RPD)               |                       | X   | X                   |     |                           | X   |                      |

COMMENTS: The samples were analyzed for TPH by Method 8015. Performance was acceptable, with the following exceptions and notes.

- 3B. DRO was detected in the equipment blank. The associated field samples were qualified as estimated for this fraction if the sample concentrations were less than five times the blank value.
- 4-6. The RPD between the LCS/LCSD pair was above the control limit for GRO. The associated field samples were qualified as estimated for this fraction.
- 7-9. Sample UG-1 was used as the MS/MSD for GRO. The recoveries and RPD were acceptable.
- 11. Sample DUP-REST-04 was collected as a field duplicate of MW-60. The RPDs were acceptable at less than 40%

### III. METALS

| ITEMS REVIEWED                          | REPORTED/<br>REVIEWED |     | EXCEPTIONS<br>NOTED |     | GENERAL COMMENTS<br>NOTED |     | REPORTED/<br>REVIEWED |
|-----------------------------------------|-----------------------|-----|---------------------|-----|---------------------------|-----|-----------------------|
|                                         | NO                    | YES | NO                  | YES | NO                        | YES |                       |
| 1. Holding times                        |                       | X   | X                   |     | X                         |     |                       |
| 2. Reporting limits                     |                       | X   | X                   |     | X                         |     |                       |
| 3. Blanks                               |                       |     |                     |     |                           |     |                       |
| A. Method Blanks                        |                       | X   | X                   |     |                           | X   |                       |
| B. Field Blanks                         | X                     |     |                     |     |                           |     | X                     |
| C. Equipment Blank                      |                       | X   |                     | X   |                           | X   |                       |
| 4. Laboratory control sample (LCS) (%R) |                       | X   | X                   |     | X                         |     |                       |
| 5. LCSD (% R)                           |                       | X   | X                   |     | X                         |     |                       |
| 6. LCS/LCSD (RPD)                       |                       | X   | X                   |     | X                         |     |                       |
| 7. Matrix spike (MS) (%R)               |                       | X   |                     | X   |                           | X   |                       |
| 8. MSD (%R)                             |                       | X   |                     | X   |                           | X   |                       |
| 9. MS/MSD (RPD)                         |                       | X   | X                   |     |                           | X   |                       |
| 10. Field/Lab Duplicate (RPD)           |                       | X   |                     | X   |                           | X   |                       |
| 11. Serial Dilution (%D)                | X                     |     |                     |     |                           |     | X                     |
| 12. Total vs. Dissolved                 |                       | X   |                     | X   |                           | X   |                       |

COMMENTS: The samples were analyzed for metals by Methods 6020 and 7470A. Performance was acceptable, with the following exceptions and notes.

- 3A. Iron, manganese, vanadium, dissolved chromium, dissolved iron and dissolved manganese were detected in the method blanks. The associated field samples were greater than ten times the blank values; therefore, qualification of the data was not warranted.
- 3C. Calcium, dissolved nickel, selenium and sodium were detected in the equipment blank. The associated field samples were qualified as non-detect for these compounds if the sample concentrations were less than ten times the blank values.
- 7-9. Sample MW-116 was used as the MS/MSD. The recovery of calcium was below the control limit in the MS. The associated field samples were qualified as estimated for calcium.

Sample MW-114 was used as the MS/MSD. The recovery of dissolved barium was above the control limit in the MS. All detections of dissolved barium in the associated field samples were qualified as estimated.

Sample MW-48 was used as the MS/MSD. The recovery of dissolved selenium was less than 10% in the MS and the MSD. All detections of dissolved selenium in the associated field samples were qualified as estimated and all non-detect results in the associated field samples were qualified as rejected.

Sample MW-110 was used as the MS/MSD for Iron. The recoveries and RPD were acceptable.

- 10. Sample DUP-REST-04 was collected as a field duplicate of MW-60. The RPDs for arsenic, dissolved arsenic and dissolved selenium were above the 40% control limit. The parent and the duplicate were qualified as estimated for these compounds.
- 12. The total arsenic results were less than the dissolved arsenic results and the difference was greater than 10% for samples MW-28, MW-64 and MW-115. The total and dissolved arsenic results were qualified as estimated for these samples.

The total selenium results were less than the dissolved selenium results and the difference was greater than 10% for samples MW-28, MW-59, MW-64, MW-107, MW-128, MW-125 and MW-116. The total and dissolved selenium results were qualified as estimated for these samples.

The total barium results were less than the dissolved barium results and the difference was greater than 10% for samples MW-64 and MW-48. The total and dissolved barium results were qualified as estimated for these samples.

The total iron results were less than the dissolved iron results and the difference was greater than 10% for samples MW-64 and MW-130. The total and dissolved iron results were qualified as estimated for these samples.

The total manganese results were less than the dissolved manganese results and the difference was greater than 10% for samples MW-48 and MW-109. The total and dissolved manganese results were qualified as estimated for these samples.

## VI. GENERAL CHEMISTRY

| ITEMS REVIEWED                          | REPORTED/<br>REVIEWED |     | EXCEPTIONS<br>NOTED |     | GENERAL COMMENTS<br>NOTED |     | ITEM NOT<br>REQUIRED |
|-----------------------------------------|-----------------------|-----|---------------------|-----|---------------------------|-----|----------------------|
|                                         | NO                    | YES | NO                  | YES | NO                        | YES |                      |
| 1. Holding times                        |                       | X   | X                   |     | X                         |     |                      |
| 2. Reporting limits                     |                       | X   | X                   |     | X                         |     |                      |
| 3. Blanks                               |                       |     |                     |     |                           |     |                      |
| A. Method Blanks                        |                       | X   | X                   |     |                           | X   |                      |
| B. Field Blanks                         | X                     |     |                     |     |                           |     | X                    |
| C. Equipment Blank                      |                       | X   | X                   |     |                           | X   |                      |
| 4. Laboratory control sample (LCS) (%R) |                       | X   | X                   |     | X                         |     |                      |
| 5. LCSD (% R)                           |                       | X   | X                   |     | X                         |     |                      |
| 6. LCS/LCSD (RPD)                       |                       | X   | X                   |     | X                         |     |                      |
| 7. Matrix spike (MS) (%R)               |                       | X   | X                   |     | X                         |     |                      |
| 8. MSD (%R)                             |                       | X   | X                   |     | X                         |     |                      |
| 9. MS/MSD (RPD)                         |                       | X   | X                   |     | X                         |     |                      |
| 10. Field/Lab Duplicate (RPD)           |                       | X   | X                   |     | X                         |     |                      |

COMMENTS: The samples were analyzed by methods 353.2, 9056 and 2540C. Performance was acceptable, with the following exceptions and notes.

- 3A. TDS was detected in the method blank. The associated field samples were greater than 5 times the blank value; therefore, qualification of the data was not warranted.
- 3C. Fluoride was detected in the equipment blank. The associated field samples were greater than 5 times the blank value; therefore, qualification of the data was not warranted.
- 7-9. Sample UG-3R was used as the MS/MSD for nitrate/nitrite. The recoveries and RPDs were acceptable.
- Sample EB-REST-04 was used as the MS/MSD for anions. The recoveries and RPDs were acceptable.
10. Samples MW-28, UG-3R and UG-1 were used as the laboratory duplicates for TDS. The RPDs were acceptable.
- Samples MW-125 and UG-2 were used as the laboratory duplicates for nitrate/nitrite. The RPDs were acceptable.
- Sample MW-28 was used as the laboratory duplicate for cyanide. The RPD was acceptable.
- Samples MW-114 and UG-3R were used as the laboratory duplicates for anions. The RPDs were acceptable.
- Sample DUP-REST-04 was collected as a field duplicate of MW-60. The RPDs were acceptable at less than 40%.

**Qualifier Definitions:**

J – Result is considered to be estimated at the value reported.

UJ – Result is considered not detected but estimated due to QC deficiencies.

UB – Non-detect at the Reporting Limit or at the concentration reported if greater than the RL due to associated blank contamination.

R – Result is qualified as unusable, data point is rejected.

## Explanation/Notes:

| Sample ID | Parameter        | Result | Units | Qualifier | Reason                                      |
|-----------|------------------|--------|-------|-----------|---------------------------------------------|
| MW-28     | Arsenic          | 9.12   | mg/L  | J         | Total vs. Dissolved                         |
|           | Arsenic (D)      | 13.0   | mg/L  | J         | Total vs. Dissolved                         |
|           | Selenium         | 20.4   | mg/L  | J         | Total vs. Dissolved                         |
|           | Selenium (D)     | 69.9   | mg/L  | J         | Total vs. Dissolved                         |
|           | Barium (D)       | 64.4   | mg/L  | J         | MS %R                                       |
|           | Calcium          | 439000 | mg/L  | J         | MS %R                                       |
|           | TPH-GRO          | 7850   | mg/L  | J         | LCS/LCSD RPD                                |
| MW-59     | Selenium         | 5.73   | mg/L  | J         | Total vs. Dissolved                         |
|           | Selenium (D)     | 8.59   | mg/L  | J         | Total vs. Dissolved                         |
|           | Barium (D)       | 13.7   | mg/L  | J         | MS %R                                       |
|           | Calcium          | 489000 | mg/L  | J         | MS %R                                       |
|           | TPH-GRO          | <100   | mg/L  | UJ        | LCS/LCSD RPD                                |
| MW-60     | Arsenic          | 4.64   | mg/L  | J         | Total vs. Dissolved                         |
|           | Arsenic (D)      | 17.1   | mg/L  | J         | Total vs. Dissolved                         |
|           | Barium           | 17.7   | mg/L  | J         | Total vs. Dissolved                         |
|           | Barium (D)       | 26.0   | mg/L  | J         | Total vs. Dissolved                         |
|           | Calcium          | 411000 | mg/L  | J         | MS %R                                       |
|           | Benzene          | 12.7   | mg/L  | J         | FD RPD                                      |
|           | Isopropylbenzene | 14.8   | mg/L  | J         | FD RPD                                      |
|           | Iron             | 72.5   | mg/L  | J         | Total vs. Dissolved                         |
|           | Iron (D)         | 116    | mg/L  | J         | Total vs. Dissolved                         |
|           | Nickel           | <2.0   | mg/L  | UB        | Blank Contamination                         |
|           | Selenium         | <10.0  | mg/L  | UJ        | Total vs. Dissolved                         |
|           | Selenium (D)     | 47.0   | mg/L  | J         | Total vs. Dissolved                         |
| MW-107    | Selenium         | <2.0   | mg/L  | UBJ       | Total vs. Dissolved and Blank Contamination |
|           | Selenium (D)     | 4.57   | mg/L  | J         | Total vs. Dissolved                         |
|           | Barium (D)       | 1530   | mg/L  | J         | MS %R                                       |
|           | Calcium          | 160000 | mg/L  | J         | MS %R                                       |
| MW-128    | Selenium         | 2.21   | mg/L  | UBJ       | Total vs. Dissolved and Blank Contamination |
|           | Selenium (D)     | 4.55   | mg/L  | J         | Total vs. Dissolved                         |
|           | Barium (D)       | 67.4   | mg/L  | J         | MS %R                                       |
|           | Calcium          | 214000 | mg/L  | J         | MS %R                                       |
|           | TPH-GRO          | 1230   | mg/L  | J         | LCS/LCSD RPD                                |

| Sample ID   | Parameter        | Result | Units | Qualifier | Reason                                      |
|-------------|------------------|--------|-------|-----------|---------------------------------------------|
| MW-125      | Selenium         | 5.81   | mg/L  | J         | Total vs. Dissolved                         |
|             | Selenium (D)     | 7.97   | mg/L  | J         | Total vs. Dissolved                         |
|             | Calcium          | 523000 | mg/L  | J         | MS %R                                       |
|             | TPH-DRO          | <100   | mg/L  | UB        | Blank Contamination                         |
| MW-116      | Selenium         | <2.0   | mg/L  | UBJ       | Total vs. Dissolved and Blank Contamination |
|             | Selenium (D)     | 4.17   | mg/L  | J         | Total vs. Dissolved                         |
|             | Barium (D)       | 9.04   | mg/L  | J         | MS %R                                       |
| MW-116      | Calcium          | 534000 | mg/L  | J         | MS %R                                       |
|             | TPH-DRO          | <100   | mg/L  | UB        | Blank Contamination                         |
|             | TPH-GRO          | <100   | mg/L  | UJ        | LCS/LCSD RPD                                |
| MW-115      | Arsenic          | 6.97   | mg/L  | J         | Total vs. Dissolved                         |
|             | Arsenic (D)      | 7.97   | mg/L  | J         | Total vs. Dissolved                         |
|             | Selenium         | <2.0   | mg/L  | UB        | Blank Contamination                         |
|             | Barium (D)       | 9.65   | mg/L  | J         | MS %R                                       |
|             | Calcium          | 546000 | mg/L  | J         | MS %R                                       |
|             | TPH-DRO          | <100   | mg/L  | UB        | Blank Contamination                         |
|             | TPH-GRO          | <100   | mg/L  | UJ        | LCS/LCSD RPD                                |
| MW-48       | Barium           | 20.4   | mg/L  | J         | Total vs. Dissolved                         |
|             | Barium (D)       | 580    | mg/L  | J         | Total vs. Dissolved                         |
|             | Manganese        | 94.8   | mg/L  | J         | Total vs. Dissolved                         |
|             | Manganese (D)    | 242    | mg/L  | J         | Total vs. Dissolved                         |
|             | Selenium         | <3.86  | mg/L  | UB        | Blank Contamination                         |
|             | Selenium (D)     | 3.02   | mg/L  | J         | MS/MSD %R                                   |
|             | Calcium          | 258000 | mg/L  | J         | MS %R                                       |
|             | TPH-GRO          | 3650   | mg/L  | J         | LCS/LCSD RPD                                |
| MW-130      | Iron             | 143    | mg/L  | J         | Total vs. Dissolved                         |
|             | Iron (D)         | 446    | mg/L  | J         | Total vs. Dissolved                         |
|             | Selenium (D)     | 3.37   | mg/L  | J         | MS/MSD %R                                   |
|             | Calcium          | 81800  | mg/L  | J         | MS %R                                       |
|             | TPH-GRO          | <100   | mg/L  | UJ        | LCS/LCSD RPD                                |
| MW-109      | Manganese        | 140    | mg/L  | J         | Total vs. Dissolved                         |
|             | Manganese (D)    | 162    | mg/L  | J         | Total vs. Dissolved                         |
|             | Selenium         | <2.0   | mg/L  | UB        | Blank Contamination                         |
|             | Selenium (D)     | 2.35   | mg/L  | J         | MS/MSD %R                                   |
|             | Calcium          | 192000 | mg/L  | J         | MS %R                                       |
| DUP-REST-04 | Nickel           | <2.0   | mg/L  | UB        | Blank Contamination                         |
|             | Selenium         | <2.0   | mg/L  | UBJ       | Blank Contamination and FD RPD              |
|             | Selenium (D)     | <2.0   | mg/L  | R         | MS/MSD %R                                   |
|             | Calcium          | 403000 | mg/L  | J         | MS %R                                       |
|             | Benzene          | 8.29   | mg/L  | J         | FD RPD                                      |
|             | Isopropylbenzene | 7.98   | mg/L  | J         | FD RPD                                      |
|             | Arsenic          | 8.5    | mg/L  | J         | FD RPD                                      |
|             | Arsenic (D)      | 1.6    | mg/L  | J         | FD RPD                                      |

| Sample ID  | Parameter          | Result | Units | Qualifier | Reason              |
|------------|--------------------|--------|-------|-----------|---------------------|
| UG-1       | Nickel             | <2.0   | mg/L  | UB        | Blank Contamination |
|            | Selenium           | 10.3   | mg/L  | J         | MS/MSD %R           |
|            | Selenium (D)       | 10.1   | mg/L  | J         | MS/MSD %R           |
|            | Calcium            | 455000 | mg/L  | J         | MS %R               |
|            | TPH-DRO            | <100   | mg/L  | UB        | Blank Contamination |
| UG-3R      | Nickel             | <4.33  | mg/L  | UB        | Blank Contamination |
|            | Selenium           | <3.95  | mg/L  | UB        | Blank Contamination |
|            | Selenium (D)       | 3.75   | mg/L  | J         | MS/MSD %R           |
|            | Calcium            | 420000 | mg/L  | J         | MS %R               |
|            | TPH-DRO            | <100   | mg/L  | UB        | Blank Contamination |
| MW-110     | Selenium           | <2.0   | mg/L  | UB        | Blank Contamination |
|            | Selenium (D)       | <2.0   | mg/L  | R         | MS/MSD %R           |
|            | Calcium            | 107000 | mg/L  | J         | MS %R               |
| MW-114     | Selenium           | <2.72  | mg/L  | UB        | Blank Contamination |
|            | Barium (D)         | 12.7   | mg/L  | J         | MS %R               |
| MW-114     | Calcium            | 570000 | mg/L  | J         | MS %R               |
|            | TPH-DRO            | <100   | mg/L  | UB        | Blank Contamination |
|            | TPH-GRO            | <100   | mg/L  | UJ        | LCS/LCSD RPD        |
| MW-52      | Selenium           | <2.78  | mg/L  | UB        | Blank Contamination |
|            | Selenium (D)       | 1.24   | mg/L  | J         | MS/MSD %R           |
|            | Calcium            | 168000 | mg/L  | J         | MS %R               |
|            | TPH-GRO            | <100   | mg/L  | UJ        | LCS/LCSD RPD        |
| UG-2       | Selenium           | <3.35  | mg/L  | UB        | Blank Contamination |
|            | Selenium (D)       | 3.73   | mg/L  | J         | MS/MSD %R           |
|            | Calcium            | 337000 | mg/L  | J         | MS %R               |
|            | TPH-DRO            | <100   | mg/L  | UB        | Blank Contamination |
| MW-125     | Barium (D)         | 8.42   | mg/L  | J         | MS %R               |
|            | TPH-GRO            | <100   | mg/L  | UJ        | LCS/LCSD RPD        |
| EB-REST-04 | Selenium (D)       | <2.0   | mg/L  | R         | MS/MSD %R           |
|            | Calcium            | 69.1   | mg/L  | J         | MS %R               |
|            | Chloromethane      | <2.5   | mg/L  | UJ        | MS/MSD RPD          |
|            | Methylene Chloride | <5.0   | mg/L  | UJ        | MS/MSD RPD          |

VALIDATION PERFORMED BY:

SIGNATURE: Rachelle Borne

DATE: January 17, 2016

PEER REVIEW:



DATE: January 19, 2016

**DATA VALIDATION CHECKLIST****NAVAJO REFINERY  
2SA2015**

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|                            |                                                                                        |
|----------------------------|----------------------------------------------------------------------------------------|
| Sample Team:               | ARCADIS                                                                                |
| Sample Matrix:             | Water                                                                                  |
| Analytical Laboratory:     | ESC                                                                                    |
| Laboratory Work Order No.: | L796154                                                                                |
| Lab Project Manager:       | Pamela Langford                                                                        |
| Analyses:                  | Chloride/Fluoride/Sulfate, Nitrate/Nitrite, TDS, Metals, VOCs, TPH-GRO/DRO and Cyanide |
| QA Reporting Level:        | ARCADIS, Level II                                                                      |

Environmental  
Project:  
Navajo Refinery

Project Number:  
TX000836.0008.00004

Analytical data were evaluated in accordance with applicable USEPA SW-846 method requirements, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review" (October 1999), "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review" (July 2002), analytical method control criteria, the analytical laboratory Quality Assurance Control Limits, and professional judgment. National Functional Guidelines were used primarily to determine applicable qualification.

The data verification was performed at a Level II and included review of data package completeness, laboratory control samples and method blanks, matrix spike precision and accuracy, surrogate recoveries, and holding time compliance. Laboratory calculations were not verified. Only QA/QC results and analytical data associated with analytes/compounds of interest were reviewed for this validation. Field sampling documentation was not reviewed as a component of this validation.

Only QA/QC results and analytical data associated with analytes/compounds of interest were reviewed for this validation.

## **ANALYTICAL DATA PACKAGE DOCUMENTATION**

The following samples were included in this data validation:

| <b>SDG Number</b> | <b>Sample ID</b>   | <b>Sample Date</b> | <b>Parent Sample</b> |
|-------------------|--------------------|--------------------|----------------------|
| L796154           | Trip Blank-REST-03 | 10/20/15           |                      |
| L796154           | MW-58              | 10/20/15           |                      |
| L796154           | KWB-2R             | 10/20/15           |                      |
| L796154           | DUP-REST-05        | 10/20/15           | KWB-12B              |
| L796154           | EB-REST-05         | 10/20/15           |                      |
| L796154           | MW-104             | 10/20/15           |                      |
| L796154           | MW-102             | 10/20/15           |                      |
| L796154           | MW-99              | 10/20/15           |                      |
| L796154           | MW-107             | 10/20/15           |                      |
| L796154           | MW-128             | 10/20/15           |                      |
| L796154           | MW-125             | 10/20/15           |                      |
| L796154           | MW-116             | 10/20/15           |                      |
| L796154           | MW-115             | 10/20/15           |                      |

## I. VOLATILE ORGANIC COMPOUNDS

| ITEMS REVIEWED                                     | REPORTED/<br>REVIEWED |     | EXCEPTIONS<br>NOTED |     | GENERAL COMMENTS<br>NOTED |     | ITEM NOT<br>REQUIRED |
|----------------------------------------------------|-----------------------|-----|---------------------|-----|---------------------------|-----|----------------------|
|                                                    | NO                    | YES | NO                  | YES | NO                        | YES |                      |
| 1. Holding times                                   |                       | X   | X                   |     | X                         |     |                      |
| 2. Reporting limits                                |                       | X   | X                   |     | X                         |     |                      |
| 3. Blanks                                          |                       |     |                     |     |                           |     |                      |
| A. Method Blanks                                   |                       | X   | X                   |     | X                         |     |                      |
| B. Equipment Blanks                                |                       | X   | X                   |     |                           | X   |                      |
| C. Trip Blanks                                     | X                     |     |                     |     |                           |     | X                    |
| 4. Laboratory control sample (LCS) (%R)            |                       | X   | X                   |     |                           | X   |                      |
| 5. Laboratory control sample duplicate (LCSD) (%R) |                       | X   | X                   |     |                           | X   |                      |
| 6. LCS/LCSD (RPD)                                  |                       | X   | X                   |     |                           | X   |                      |
| 7. Matrix spike (MS) (%R)                          |                       | X   |                     | X   |                           | X   |                      |
| 8. MSD (%R)                                        |                       | X   |                     | X   |                           | X   |                      |
| 9. MS/MSD (RPD)                                    |                       | X   | X                   |     |                           | X   |                      |
| 10. Surrogate Recoveries (%R)                      |                       | X   | X                   |     | X                         |     |                      |
| 11. Field Duplicate Comparison (RPD)               |                       | X   | X                   |     |                           | X   |                      |

COMMENTS: The samples were analyzed for VOCs by Method 8260B. Performance was acceptable, with the following exceptions and notes.

- 3B. Chloroform and 1,3,5-trimethylbenzene were detected in the equipment blank. The associated field samples were wither non-detect or greater than five times the blank values; therefore, qualification of the data was not warranted.
- 4-6. The recovery of trichloroethene was above the control limit in the LCS and the LCSD. The associated field samples were non-detect for this compound; therefore, qualification of the data was not warranted.
- 7-9. Sample DUP-REST-05 was used as the MS/MSD. The recoveries of carbon disulfide, chloromethane, trans-1,2-dichloroethene, methylene chloride and vinyl chloride were below the control limit in the MS and/or the MSD. The parent sample was qualified as estimated for these compounds.
- Sample MW-115 was used as the MS/MSD. The recovery of carbon disulfide was below the control limit in the MS and the MSD. The parent sample was qualified as estimated for this compound.
11. Sample DUP-REST-05 was collected as a field duplicate of KWB-12B. The RPDs were acceptable at less than 40%.

## II. TOTAL PETROLEUM HYDROCARBONS

| ITEMS REVIEWED                                     | REPORTED/<br>REVIEWED |     | EXCEPTIONS<br>NOTED |     | GENERAL COMMENTS<br>NOTED |     | ITEM NOT<br>REQUIRED |
|----------------------------------------------------|-----------------------|-----|---------------------|-----|---------------------------|-----|----------------------|
|                                                    | NO                    | YES | NO                  | YES | NO                        | YES |                      |
| 1. Holding times                                   |                       | X   | X                   |     | X                         |     |                      |
| 2. Reporting limits                                |                       | X   | X                   |     | X                         |     |                      |
| 3. Blanks                                          |                       |     |                     |     |                           |     |                      |
| A. Method Blanks                                   |                       | X   | X                   |     | X                         |     |                      |
| B. Equipment Blanks                                |                       | X   | X                   |     | X                         |     |                      |
| 4. Laboratory control sample (LCS) (%R)            |                       | X   | X                   |     | X                         |     |                      |
| 5. Laboratory control sample duplicate (LCSD) (%R) |                       | X   | X                   |     | X                         |     |                      |
| 6. LCS/LCSD (RPD)                                  |                       | X   | X                   |     | X                         |     |                      |
| 7. Matrix spike (MS) (%R)                          |                       | X   |                     | X   |                           | X   |                      |
| 8. MSD (%R)                                        |                       | X   | X                   |     |                           | X   |                      |
| 9. MS/MSD (RPD)                                    |                       | X   | X                   |     |                           | X   |                      |
| 10. Surrogate Recoveries (%R)                      |                       | X   | X                   |     | X                         |     |                      |
| 11. Field Duplicate Comparison (RPD)               |                       | X   | X                   |     |                           | X   |                      |

COMMENTS: The samples were analyzed for TPH by Method 8015. Performance was acceptable, with the following exceptions and notes.

- 7-9. Sample MW-107 was used as the MS/MSD. The recovery of TPH-GRO was below the control limit in the MS. The parent sample was qualified as estimated for this compound.
- 11. Sample DUP-REST-05 was collected as a field duplicate of KWB-12B. The RPDs were acceptable at less than 40%.

### III. METALS

| ITEMS REVIEWED                          | REPORTED/<br>REVIEWED |     | EXCEPTIONS<br>NOTED |     | GENERAL COMMENTS<br>NOTED |     | REPORTED/<br>REVIEWED |
|-----------------------------------------|-----------------------|-----|---------------------|-----|---------------------------|-----|-----------------------|
|                                         | NO                    | YES | NO                  | YES | NO                        | YES |                       |
| 1. Holding times                        |                       | X   | X                   |     | X                         |     |                       |
| 2. Reporting limits                     |                       | X   | X                   |     | X                         |     |                       |
| 3. Blanks                               |                       |     |                     |     |                           |     |                       |
| A. Method Blanks                        |                       | X   | X                   |     |                           | X   |                       |
| B. Field Blanks                         | X                     |     |                     |     |                           |     |                       |
| C. Equipment Blank                      |                       | X   |                     | X   |                           | X   |                       |
| 4. Laboratory control sample (LCS) (%R) |                       | X   | X                   |     | X                         |     |                       |
| 5. LCSD (% R)                           |                       | X   | X                   |     | X                         |     |                       |
| 6. LCS/LCSD (RPD)                       |                       | X   | X                   |     | X                         |     |                       |
| 7. Matrix spike (MS) (%R)               |                       | X   | X                   |     |                           | X   |                       |
| 8. MSD (%R)                             |                       | X   | X                   |     |                           | X   |                       |
| 9. MS/MSD (RPD)                         |                       | X   | X                   |     |                           | X   |                       |
| 10. Field/Lab Duplicate (RPD)           |                       | X   | X                   |     |                           | X   |                       |
| 11. Serial Dilution (%D)                | X                     |     |                     |     |                           |     | X                     |
| 12. Total vs. Dissolved                 | X                     |     |                     |     |                           |     | X                     |

COMMENTS: The samples were analyzed for metals by Methods 6020. Performance was acceptable, with the following exceptions and notes.

- 3A Potassium and vanadium were detected in the method blank. The associated field samples were greater than ten times the blank values; therefore, qualification of the data was not warranted.
- 3C. Barium, calcium, manganese, sodium and vanadium were detected in the equipment blank. The associated field samples were qualified as non-detect for these metals if the sample concentrations were less than ten times the blank values.
- 7-9. Sample MW-115 was used as the MS/MSD. The recoveries and RPDs were acceptable.
- 10. Sample DUP-REST-05 was collected as a field duplicate of KWB-12B. The RPDs were acceptable at less than 40%.

## VI. GENERAL CHEMISTRY

| ITEMS REVIEWED                          | REPORTED/<br>REVIEWED |     | EXCEPTIONS<br>NOTED |     | GENERAL COMMENTS<br>NOTED |     | ITEM NOT<br>REQUIRED |
|-----------------------------------------|-----------------------|-----|---------------------|-----|---------------------------|-----|----------------------|
|                                         | NO                    | YES | NO                  | YES | NO                        | YES |                      |
| 1. Holding times                        |                       | X   | X                   |     | X                         |     |                      |
| 2. Reporting limits                     |                       | X   | X                   |     | X                         |     |                      |
| 3. Blanks                               |                       |     |                     |     |                           |     |                      |
| A. Method Blanks                        |                       | X   | X                   |     |                           | X   |                      |
| B. Field Blanks                         | X                     |     |                     |     |                           |     | X                    |
| C. Equipment Blank                      |                       | X   | X                   |     |                           | X   |                      |
| 4. Laboratory control sample (LCS) (%R) |                       | X   | X                   |     | X                         |     |                      |
| 5. LCSD (% R)                           |                       | X   | X                   |     | X                         |     |                      |
| 6. LCS/LCSD (RPD)                       |                       | X   | X                   |     | X                         |     |                      |
| 7. Matrix spike (MS) (%R)               |                       | X   | X                   |     |                           | X   |                      |
| 8. MSD (%R)                             | X                     |     |                     |     |                           |     | X                    |
| 9. MS/MSD (RPD)                         | X                     |     |                     |     |                           |     | X                    |
| 10. Field/Lab Duplicate (RPD)           |                       | X   | X                   |     |                           | X   |                      |

COMMENTS: The samples were analyzed by methods 353.2, 9056 and 2540C. Performance was acceptable, with the following exceptions and notes.

- 3A. Nitrate/nitrite was detected in the method blank. The associated field samples were greater than five times the blank value; therefore, qualification of the data was not warranted.
- 3C. TDS, chloride and sulfate were detected in the equipment blank. The associated field samples were greater than five times the blank values; therefore, qualification of the data was not warranted.
- 7. Sample DUP-REST-05 was used as the MS for nitrate/nitrite. The recovery was acceptable.  
Sample EB-REST-05 was used as the MS for the anions. The recoveries were acceptable.
- 10. Sample EB-REST-05 was used as the laboratory duplicate for TDS. The RPD was acceptable.  
Sample MW-107 was used as the laboratory duplicate for nitrate/nitrite. The RPD was acceptable.  
Sample DUP-REST-05 was collected as a field duplicate of KWB-12B. The RPDs were acceptable at less than 40%.

**Qualifier Definitions:**

J – Result is considered to be estimated at the value reported.

UJ – Result is considered not detected but estimated due to QC deficiencies.

UB – Non-detect at the Reporting Limit or at the concentration reported if greater than the RL due to associated blank contamination.

R – Result is qualified as unusable, data point is rejected.

Explanation/Notes:

| Sample ID   | Parameter                | Result | Units | Qualifier | Reason              |
|-------------|--------------------------|--------|-------|-----------|---------------------|
| DUP-REST-05 | Carbon Disulfide         | <1.0   | mg/L  | UJ        | MS/MSD %R           |
|             | Chloromethane            | <2.5   | mg/L  | UJ        | MS/MSD %R           |
|             | trans-1,2-Dichloroethene | <1.0   | mg/L  | UJ        | MS/MSD %R           |
|             | Methylene chloride       | <5.0   | mg/L  | UJ        | MS %R               |
|             | Vinyl chloride           | <1.0   | mg/L  | UJ        | MS/MSD %R           |
|             | Manganese                | <5.0   | mg/L  | UB        | Blank Contamination |
| MW-115      | Carbon Disulfide         | <1.0   | mg/L  | UJ        | MS/MSD %R           |
| MW-107      | TPH-GRO                  | 14900  | mg/L  | J         | MS %R               |
| MW-58       | Vanadium                 | <5.0   | mg/L  | UB        | Blank Contamination |

VALIDATION PERFORMED BY:

SIGNATURE: Rachelle Borne

DATE: January 17, 2016

PEER REVIEW:



DATE: January 19, 2016

**DATA VALIDATION CHECKLIST****NAVAJO REFINERY  
2SA2015**

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|                            |                                                                                        |
|----------------------------|----------------------------------------------------------------------------------------|
| Sample Team:               | ARCADIS                                                                                |
| Sample Matrix:             | Water                                                                                  |
| Analytical Laboratory:     | ESC                                                                                    |
| Laboratory Work Order No.: | L798485                                                                                |
| Lab Project Manager:       | Pamela Langford                                                                        |
| Analyses:                  | Chloride/Fluoride/Sulfate, Nitrate/Nitrite, TDS, Metals, VOCs, TPH-GRO/DRO and Cyanide |
| QA Reporting Level:        | ARCADIS, Level II                                                                      |

Environmental  
Project:  
Navajo Refinery

Project Number:  
TX000836.0008.00004

Analytical data were evaluated in accordance with applicable USEPA SW-846 method requirements, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review" (October 1999), "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review" (July 2002), analytical method control criteria, the analytical laboratory Quality Assurance Control Limits, and professional judgment. National Functional Guidelines were used primarily to determine applicable qualification.

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Only QA/QC results and analytical data associated with analytes/compounds of interest were reviewed for this validation.

## **ANALYTICAL DATA PACKAGE DOCUMENTATION**

The following samples were included in this data validation:

| <b>SDG Number</b> | <b>Sample ID</b>  | <b>Sample Date</b> | <b>Parent Sample</b> |
|-------------------|-------------------|--------------------|----------------------|
| L798485           | MW-49             | 10/20/15           |                      |
| L798485           | TEL-4             | 10/20/15           |                      |
| L798485           | TEL-3             | 10/20/15           |                      |
| L798485           | TEL-2             | 10/20/15           |                      |
| L798485           | TEL-1             | 10/20/15           |                      |
| L798485           | DUP-TEL-1         | 10/20/15           | TEL-4                |
| L798485           | EB-TEL-01         | 10/20/15           |                      |
| L798485           | TRIP BLANK-TEL-01 | 10/20/15           |                      |

# I. VOLATILE ORGANIC COMPOUNDS

| ITEMS REVIEWED                                     | REPORTED/<br>REVIEWED |     | EXCEPTIONS<br>NOTED |     | GENERAL COMMENTS<br>NOTED |     | ITEM NOT<br>REQUIRED |
|----------------------------------------------------|-----------------------|-----|---------------------|-----|---------------------------|-----|----------------------|
|                                                    | NO                    | YES | NO                  | YES | NO                        | YES |                      |
| 1. Holding times                                   |                       | X   | X                   |     | X                         |     |                      |
| 2. Reporting limits                                |                       | X   | X                   |     | X                         |     |                      |
| 3. Blanks                                          |                       |     |                     |     |                           |     |                      |
| A. Method Blanks                                   |                       | X   | X                   |     | X                         |     |                      |
| B. Equipment Blanks                                |                       | X   |                     | X   |                           | X   |                      |
| C. Trip Blanks                                     |                       | X   | X                   |     | X                         |     |                      |
| 4. Laboratory control sample (LCS) (%R)            |                       | X   | X                   |     |                           | X   |                      |
| 5. Laboratory control sample duplicate (LCSD) (%R) |                       | X   | X                   |     |                           | X   |                      |
| 6. LCS/LCSD (RPD)                                  |                       | X   | X                   |     | X                         |     |                      |
| 7. Matrix spike (MS) (%R)                          | X                     |     |                     |     |                           |     | X                    |
| 8. MSD (%R)                                        | X                     |     |                     |     |                           |     | X                    |
| 9. MS/MSD (RPD)                                    | X                     |     |                     |     |                           |     | X                    |
| 10. Surrogate Recoveries (%R)                      |                       | X   | X                   |     | X                         |     |                      |
| 11. Field Duplicate Comparison (RPD)               |                       | X   | X                   |     |                           | X   |                      |

COMMENTS: The samples were analyzed for VOCs by Method 8260B. Performance was acceptable, with the following exceptions and notes.

- 3B. Carbon disulfide and chloroform were detected in the equipment blank. The associated field samples were qualified as non-detect for these compounds if the sample concentrations were less than five times the blank values.
- 4-6. The recovery of trichloroethene was above the control limit in the LCS and the LCSD. The associated field samples were non-detect for this compound; therefore, qualification of the data was not warranted.
- 11. Sample DUP-TEL-1 was collected as a field duplicate of TEL-4. The RPDs were acceptable at less than 40%.

## II. TOTAL PETROLEUM HYDROCARBONS

| ITEMS REVIEWED                                     | REPORTED/<br>REVIEWED |     | EXCEPTIONS<br>NOTED |     | GENERAL COMMENTS<br>NOTED |     | ITEM NOT<br>REQUIRED |
|----------------------------------------------------|-----------------------|-----|---------------------|-----|---------------------------|-----|----------------------|
|                                                    | NO                    | YES | NO                  | YES | NO                        | YES |                      |
| 1. Holding times                                   |                       | X   | X                   |     | X                         |     |                      |
| 2. Reporting limits                                |                       | X   | X                   |     | X                         |     |                      |
| 3. Blanks                                          |                       |     |                     |     |                           |     |                      |
| A. Method Blanks                                   |                       | X   | X                   |     | X                         |     |                      |
| B. Equipment Blanks                                |                       | X   | X                   |     | X                         |     |                      |
| 4. Laboratory control sample (LCS) (%R)            |                       | X   | X                   |     | X                         |     |                      |
| 5. Laboratory control sample duplicate (LCSD) (%R) |                       | X   | X                   |     | X                         |     |                      |
| 6. LCS/LCSD (RPD)                                  |                       | X   | X                   |     | X                         |     |                      |
| 7. Matrix spike (MS) (%R)                          | X                     |     |                     |     |                           |     | X                    |
| 8. MSD (%R)                                        | X                     |     |                     |     |                           |     | X                    |
| 9. MS/MSD (RPD)                                    | X                     |     |                     |     |                           |     | X                    |
| 10. Surrogate Recoveries (%R)                      |                       | X   |                     | X   |                           | X   |                      |
| 11. Field Duplicate Comparison (RPD)               |                       | X   | X                   |     |                           | X   |                      |

COMMENTS: The samples were analyzed for TPH by Method 8015. Performance was acceptable, with the following exceptions and notes.

10. The surrogate was diluted out in sample TEL-2 for the DRO fraction. This sample was qualified as estimated for TPH-DRO.
11. Sample DUP-TEL-1 was collected as a field duplicate of TEL-4. The RPDs were acceptable at less than 40%.

### III. METALS

| ITEMS REVIEWED                          | REPORTED/<br>REVIEWED |     | EXCEPTIONS<br>NOTED |     | GENERAL COMMENTS<br>NOTED |     | REPORTED/<br>REVIEWED |
|-----------------------------------------|-----------------------|-----|---------------------|-----|---------------------------|-----|-----------------------|
|                                         | NO                    | YES | NO                  | YES | NO                        | YES |                       |
| 1. Holding times                        |                       | X   | X                   |     | X                         |     |                       |
| 2. Reporting limits                     |                       | X   | X                   |     | X                         |     |                       |
| 3. Blanks                               |                       |     |                     |     |                           |     |                       |
| A. Method Blanks                        |                       | X   | X                   |     |                           | X   |                       |
| B. Field Blanks                         | X                     |     |                     |     |                           |     |                       |
| C. Equipment Blank                      |                       | X   |                     | X   |                           | X   |                       |
| 4. Laboratory control sample (LCS) (%R) |                       | X   | X                   |     | X                         |     |                       |
| 5. LCSD (% R)                           |                       | X   | X                   |     | X                         |     |                       |
| 6. LCS/LCSD (RPD)                       |                       | X   | X                   |     | X                         |     |                       |
| 7. Matrix spike (MS) (%R)               | X                     |     |                     |     |                           |     | X                     |
| 8. MSD (%R)                             | X                     |     |                     |     |                           |     | X                     |
| 9. MS/MSD (RPD)                         | X                     |     |                     |     |                           |     | X                     |
| 10. Field/Lab Duplicate (RPD)           |                       | X   | X                   |     |                           | X   |                       |
| 11. Serial Dilution (%D)                | X                     |     |                     |     |                           |     | X                     |
| 12. Total vs. Dissolved                 | X                     |     |                     |     |                           |     | X                     |

COMMENTS: The samples were analyzed for metals by Methods 6020. Performance was acceptable, with the following exceptions and notes.

- 3A Vanadium was detected in the method blank. The associated field samples were greater than ten times the blank value; therefore, qualification of the data was not warranted.
- 3C. Arsenic, barium, calcium and manganese were detected in the equipment blank. The associated field samples were qualified as non-detect for these metals if the sample concentrations were less than ten times the blank values.
- 10. Sample DUP-TEL-1 was collected as a field duplicate of TEL-4. The RPDs were acceptable at less than 40%.

## VI. GENERAL CHEMISTRY

| ITEMS REVIEWED                          | REPORTED/<br>REVIEWED |     | EXCEPTIONS<br>NOTED |     | GENERAL COMMENTS<br>NOTED |     | ITEM NOT<br>REQUIRED |
|-----------------------------------------|-----------------------|-----|---------------------|-----|---------------------------|-----|----------------------|
|                                         | NO                    | YES | NO                  | YES | NO                        | YES |                      |
| 1. Holding times                        |                       | X   | X                   |     | X                         |     |                      |
| 2. Reporting limits                     |                       | X   | X                   |     | X                         |     |                      |
| 3. Blanks                               |                       |     |                     |     |                           |     |                      |
| A. Method Blanks                        |                       | X   | X                   |     |                           | X   |                      |
| B. Field Blanks                         | X                     |     |                     |     |                           |     | X                    |
| C. Equipment Blank                      |                       | X   | X                   |     |                           | X   |                      |
| 4. Laboratory control sample (LCS) (%R) |                       | X   | X                   |     | X                         |     |                      |
| 5. LCSD (% R)                           |                       | X   | X                   |     | X                         |     |                      |
| 6. LCS/LCSD (RPD)                       |                       | X   | X                   |     | X                         |     |                      |
| 7. Matrix spike (MS) (%R)               | X                     |     |                     |     |                           |     | X                    |
| 8. MSD (%R)                             | X                     |     |                     |     |                           |     | X                    |
| 9. MS/MSD (RPD)                         | X                     |     |                     |     |                           |     | X                    |
| 10. Field/Lab Duplicate (RPD)           |                       | X   | X                   |     |                           | X   |                      |

COMMENTS: The samples were analyzed by methods 353.2, 9056 and 2540C. Performance was acceptable, with the following exceptions and notes.

- 3A. Nitrate/nitrite was detected in the method blank. The associated field samples were greater than five times the blank value; therefore, qualification of the data was not warranted.
- 3B. TDS and chloride were detected in the equipment blank. The associated field samples were greater than five times the blank values; therefore, qualification of the data was not warranted.
- 10. Sample DUP-TEL-1 was collected as a field duplicate of TEL-4. The RPDs were acceptable at less than 40%.

**Qualifier Definitions:**

J – Result is considered to be estimated at the value reported.

UJ – Result is considered not detected but estimated due to QC deficiencies.

UB – Non-detect at the Reporting Limit or at the concentration reported if greater than the RL due to associated blank contamination.

R – Result is qualified as unusable, data point is rejected.

Explanation/Notes:

| Sample ID | Parameter        | Result | Units | Qualifier | Reason              |
|-----------|------------------|--------|-------|-----------|---------------------|
| MW-49     | Carbon Disulfide | <1.24  | mg/L  | UB        | Blank Contamination |
|           | Arsenic          | <4.93  | mg/L  | UB        | Blank Contamination |
| TEL-4     | Carbon Disulfide | <1.0   | mg/L  | UB        | Blank Contamination |
| TEL-2     | TPH-DRO          | 18700  | mg/L  | J         | Surrogate %R        |
| TEL-1     | Arsenic          | <6.63  | mg/L  | UB        | Blank Contamination |
|           | Barium           | <15.7  | mg/L  | UB        | Blank Contamination |
| TEL-3     | Arsenic          | <2.34  | mg/L  | UB        | Blank Contamination |
|           | Barium           | <12.8  | mg/L  | UB        | Blank Contamination |

VALIDATION PERFORMED BY:

SIGNATURE: Rachelle Borne

DATE: January 17, 2016

PEER REVIEW:



DATE: January 19, 2016

# APPENDIX E

## Recovery System Records



| Well         | Volume of Water Recovered<br>(gallons) |                |                |                |                  | Volume of PSH Recovered<br>(gallons) |               |              |              |               |
|--------------|----------------------------------------|----------------|----------------|----------------|------------------|--------------------------------------|---------------|--------------|--------------|---------------|
|              | 1st Qtr                                | 2nd Qtr        | 3rd Qtr        | 4th Qtr        | Total 2015       | 1st Qtr                              | 2nd Qtr       | 3rd Qtr      | 4th Qtr      | Total 2015    |
| RW-1R        | -                                      | -              | -              | 4              | 4                | -                                    | -             | -            | -            | -             |
| RW-2R        | -                                      | 1              | -              | -              | 1                | 504                                  | -             | -            | -            | 504           |
| RW-4R        | -                                      | -              | -              | -              | -                | -                                    | -             | -            | -            | -             |
| RW-5R        | 1                                      | -              | -              | -              | 1                | 6,269                                | 1,649         | -            | -            | 7,918         |
| RW-6R        | 1                                      | -              | -              | -              | 1                | 8,486                                | 1,222         | 1,130        | -            | 10,838        |
| RW-7         | -                                      | 1              | -              | 16,550         | 16,551           | -                                    | -             | 480          | 149          | 629           |
| RW-8R        | -                                      | -              | -              | 12,205         | 12,205           | 7,140                                | 2,035         | -            | -            | 9,175         |
| RW-12R       | -                                      | 1              | -              | -              | 1                | 2                                    | 7             | -            | -            | 9             |
| RW-13R       | -                                      | -              | -              | -              | -                | 1                                    | 2,671         | 5            | -            | 2,677         |
| RW-14R       | -                                      | -              | -              | -              | -                | 1,835                                | 388           | 5            | -            | 2,228         |
| RW-15        | -                                      | -              | -              | -              | -                | 249                                  | 3,416         | 4,069        | 3,390        | 11,124        |
| RW-19        | -                                      | -              | -              | -              | -                | 1                                    | 5,353         | 5            | 2            | 5,361         |
| RW-20        | 558,515                                | 871,386        | 771,222        | 639,191        | 2,840,314        | -                                    | 1             | -            | -            | 1             |
| RW-22        | -                                      | -              | -              | -              | -                | 2                                    | 12            | 3            | -            | 17            |
| <b>TOTAL</b> | <b>558,517</b>                         | <b>871,389</b> | <b>771,222</b> | <b>667,950</b> | <b>2,869,078</b> | <b>24,489</b>                        | <b>16,754</b> | <b>5,697</b> | <b>3,541</b> | <b>50,481</b> |

Notes:

1. Volume reported as water is total fluids and may contain unmeasured amount of PSH.

## Automated Readings - Skid T-9012

| Date           | Water/Total Fluids Readings |         |      |        |
|----------------|-----------------------------|---------|------|--------|
|                | RW-1R                       | RW-2R   | RW-7 | RW-8R  |
| 1st Quarter    |                             |         |      |        |
| 12/29/2014     | 285,748                     | 411,275 | 4    | 99,557 |
| 1/5/2015       | 285,748                     | 411,275 | 4    | 99,557 |
| 1/12/2015      | 285,748                     | 411,275 | 4    | 99,557 |
| 1/19/2015      | 285,748                     | 411,275 | 4    | 99,557 |
| 1/26/2015      | 285,748                     | 411,275 | 4    | 99,557 |
| 2/3/2015       | 285,748                     | 411,275 | 4    | 99,557 |
| 2/9/2015       | 285,748                     | 411,275 | 4    | 99,557 |
| 2/16/2015      | 285,748                     | 411,275 | 4    | 99,557 |
| 2/23/2015      | 285,748                     | 411,275 | 4    | 99,557 |
| 3/2/2015       | 285,748                     | 411,275 | 4    | 99,557 |
| 3/9/2015       | 285,748                     | 411,275 | 4    | 99,557 |
| 3/16/2015      | 285,748                     | 411,275 | 4    | 99,557 |
| 3/23/2015      | 285,748                     | 411,275 | 4    | 99,557 |
| 3/30/2015      | 285,748                     | 411,275 | 4    | 99,557 |
| <b>Totals:</b> | -                           | -       | -    | -      |
| 2nd Quarter    |                             |         |      |        |
| 4/6/2015       | 285,748                     | 411,275 | 4    | 99,557 |
| 4/13/2015      | 285,748                     | 411,275 | 4    | 99,557 |
| 4/20/2015      | 285,748                     | 411,275 | 4    | 99,557 |
| 4/27/2015      | 285,748                     | 411,275 | 4    | 99,557 |
| 5/4/2015       | 285,748                     | 411,275 | 4    | 99,557 |
| 5/11/2015      | 285,748                     | 411,275 | 4    | 99,557 |
| 5/18/2015      | 285,748                     | 411,276 | 4    | 99,557 |
| 5/25/2015      | 285,748                     | 411,276 | 4    | 99,557 |
| 6/1/2015       | 285,748                     | 411,276 | 4    | 99,557 |
| 6/8/2015       | 285,748                     | 411,276 | 4    | 99,557 |
| 6/15/2015      | 285,748                     | 411,276 | 4    | 99,557 |
| 6/22/2015      | 285,748                     | 411,276 | 5    | 99,557 |
| 6/29/2015      | 285,748                     | 411,276 | 5    | 99,557 |
| <b>Totals:</b> | -                           | 1       | 1    | -      |
| 3rd Quarter    |                             |         |      |        |
| 7/6/2015       | 285,748                     | 411,276 | 5    | 99,557 |
| 7/13/2015      | 285,748                     | 411,276 | 5    | 99,557 |
| 7/20/2015      | 285,748                     | 411,276 | 5    | 99,557 |
| 7/27/2015      | 285,748                     | 411,276 | 5    | 99,557 |
| 8/3/2015       | 285,748                     | 411,276 | 5    | 99,557 |
| 8/10/2015      | 285,748                     | 411,276 | 5    | 99,557 |
| 8/17/2015      | 285,748                     | 411,276 | 5    | 99,557 |
| 8/24/2015      | 285,748                     | 411,276 | 5    | 99,557 |
| 8/31/2015      | 285,748                     | 411,276 | 5    | 99,557 |
| 9/7/2015       | 285,748                     | 411,276 | 5    | 99,557 |
| 9/14/2015      | 285,748                     | 411,276 | 5    | 99,557 |
| 9/21/2015      | 285,748                     | 411,276 | 5    | 99,557 |
| 9/28/2015      | 285,748                     | 411,276 | 5    | 99,557 |
| <b>Totals:</b> | -                           | -       | -    | -      |

## Automated Readings - Skid T-9012

| Date           | Water/Total Fluids Readings |          |               |               |
|----------------|-----------------------------|----------|---------------|---------------|
|                | RW-1R                       | RW-2R    | RW-7          | RW-8R         |
| 4th Quarter    |                             |          |               |               |
| 10/5/2015      | 285,748                     | 411,276  | 5             | 99,557        |
| 10/12/2015     | 285,748                     | 411,276  | 5             | 99,557        |
| 10/19/2015     | 285,752                     | 411,276  | 6             | 99,557        |
| 10/26/2015     | 285,752                     | 411,276  | 6             | 99,557        |
| 11/2/2015      | 285,752                     | 411,276  | 6             | 99,557        |
| 11/9/2015      | 285,752                     | 411,276  | 6             | 99,557        |
| 11/16/2015     | 285,752                     | 411,276  | 6             | 99,557        |
| 11/23/2015     | 285,752                     | 411,276  | 6             | 99,557        |
| 11/30/2015     | 285,752                     | 411,276  | 6             | 99,557        |
| 12/7/2015      | 285,752                     | 411,276  | 6             | 99,557        |
| 12/14/2015     | 285,752                     | 411,276  | 6             | 99,557        |
| 12/21/2015     | 285,752                     | 411,276  | 6             | 99,557        |
| 12/28/2015     | 285,752                     | 411,276  | 16,555        | 111,762       |
| <b>Totals:</b> | <b>4</b>                    | <b>-</b> | <b>16,550</b> | <b>12,205</b> |

# Automated Readings - Skid T-9012

| Date           | PSH Readings |            |            |              | Tank Reading  |
|----------------|--------------|------------|------------|--------------|---------------|
|                | RW-1R        | RW-2R      | RW-7       | RW-8R        | T-9012        |
| 1st Quarter    |              |            |            |              |               |
| 12/29/2014     | 3            | 11,080     | 1          | 32,772       | 13919         |
| 1/5/2015       | 3            | 11,584     | 1          | 32,775       | 14730         |
| 1/12/2015      | 3            | 11,584     | 1          | 32,775       | 14730         |
| 1/19/2015      | 3            | 11,584     | 1          | 34,493       | 17156         |
| 1/26/2015      | 3            | 11,584     | 1          | 35,954       | 19736         |
| 2/3/2015       | 3            | 11,584     | 1          | 35,960       | 19928         |
| 2/9/2015       | 3            | 11,584     | 1          | 35,960       | 19928         |
| 2/16/2015      | 3            | 11,584     | 1          | 37,222       | 21201         |
| 2/23/2015      | 3            | 11,584     | 1          | 38,576       | 22641         |
| 3/2/2015       | 3            | 11,584     | 1          | 38,762       | 22806         |
| 3/9/2015       | 3            | 11,584     | 1          | 39,508       | 23768         |
| 3/16/2015      | 3            | 11,584     | 1          | 39,726       | 23924         |
| 3/23/2015      | 3            | 11,584     | 1          | 39,891       | 24083         |
| 3/30/2015      | 3            | 11,584     | 1          | 39,912       | 24090         |
| <b>Totals:</b> | -            | <b>504</b> | -          | <b>7,140</b> | <b>10,171</b> |
| 2nd Quarter    |              |            |            |              |               |
| 4/6/2015       | 3            | 11,584     | 1          | 39,912       | 24,090        |
| 4/13/2015      | 3            | 11,584     | 1          | 39,912       | 24,090        |
| 4/20/2015      | 3            | 11,584     | 1          | 39,912       | 24,090        |
| 4/27/2015      | 3            | 11,584     | 1          | 39,912       | 24,090        |
| 5/4/2015       | 3            | 11,584     | 1          | 39,912       | 24,092        |
| 5/11/2015      | 3            | 11,584     | 1          | 39,912       | 24,278        |
| 5/18/2015      | 3            | 11,584     | 1          | 39,913       | 24,278        |
| 5/25/2015      | 3            | 11,584     | 1          | 40,680       | 24,950        |
| 6/1/2015       | 3            | 11,584     | 1          | 41,074       | 25,430        |
| 6/8/2015       | 3            | 11,584     | 1          | 41,946       | 26,233        |
| 6/15/2015      | 3            | 11,584     | 1          | 41,947       | 26,233        |
| 6/22/2015      | 3            | 11,584     | 1          | 41,947       | 26,233        |
| 6/29/2015      | 3            | 11,584     | 1          | 41,947       | 26,388        |
| <b>Totals:</b> | -            | -          | -          | <b>2,035</b> | <b>2,298</b>  |
| 3rd Quarter    |              |            |            |              |               |
| 7/6/2015       | 3            | 11,584     | 1          | 41,947       | 26,388        |
| 7/13/2015      | 3            | 11,584     | 1          | 41,947       | 26,389        |
| 7/20/2015      | 3            | 11,584     | 1          | 41,947       | 26,391        |
| 7/27/2015      | 3            | 11,584     | 1          | 41,947       | 26,394        |
| 8/3/2015       | 3            | 11,584     | 1          | 41,947       | 26,395        |
| 8/10/2015      | 3            | 11,584     | 1          | 41,947       | 26,395        |
| 8/17/2015      | 3            | 11,584     | 1          | 41,947       | 26,395        |
| 8/24/2015      | 3            | 11,584     | 1          | 41,947       | 26,582        |
| 8/31/2015      | 3            | 11,584     | 1          | 41,947       | 26,585        |
| 9/7/2015       | 3            | 11,584     | 419        | 41,947       | 27,169        |
| 9/14/2015      | 3            | 11,584     | 481        | 41,947       | 27,884        |
| 9/21/2015      | 3            | 11,584     | 481        | 41,947       | 28,346        |
| 9/28/2015      | 3            | 11,584     | 481        | 41,947       | 28,347        |
| <b>Totals:</b> | -            | -          | <b>480</b> | -            | <b>1,959</b>  |

# Automated Readings - Skid T-9012

| Date           | PSH Readings |        |            |        | Tank Reading |
|----------------|--------------|--------|------------|--------|--------------|
|                | RW-1R        | RW-2R  | RW-7       | RW-8R  | T-9012       |
| 4th Quarter    |              |        |            |        |              |
| 10/5/2015      | 3            | 11,584 | 625        | 41,947 | 28,347       |
| 10/12/2015     | 3            | 11,584 | 627        | 41,947 | 28,587       |
| 10/19/2015     | 3            | 11,584 | 627        | 41,947 | 28,587       |
| 10/26/2015     | 3            | 11,584 | 630        | 41,947 | 28,587       |
| 11/2/2015      | 3            | 11,584 | 4          | 41,947 | 28,587       |
| 11/9/2015      | 3            | 11,584 | 4          | 41,947 | 28,587       |
| 11/16/2015     | 3            | 11,584 | 4          | 41,947 | 28,762       |
| 11/23/2015     | 3            | 11,584 | 4          | 41,947 | 28,762       |
| 11/30/2015     | 3            | 11,584 | 4          | 41,947 | 28,762       |
| 12/7/2015      | 3            | 11,584 | 4          | 41,947 | 28,762       |
| 12/14/2015     | 3            | 11,584 | 4          | 41,947 | 28,762       |
| 12/21/2015     | 3            | 11,584 | 4          | 41,947 | 28,762       |
| 12/28/2015     | 3            | 11,584 | 4          | 41,947 | 28,762       |
| <b>Totals:</b> | -            | -      | <b>149</b> | -      | <b>415</b>   |

## Local Readings - Skid T-9012

| Date           | Water/Total Fluids Readings |         |      |        |
|----------------|-----------------------------|---------|------|--------|
|                | RW-1R                       | RW-2R   | RW-7 | RW-8R  |
| 12/22/2014     | 285,749                     | 411,283 | 4    | 99,243 |
| 1/8/2015       | 285,749                     | 411,283 | 4    | 99,243 |
| 1/15/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 1/22/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 1/29/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 2/5/2015       | 285,749                     | 411,283 | 4    | 99,243 |
| 2/10/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 2/19/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 2/25/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 3/3/2015       | 285,749                     | 411,283 | 4    | 99,243 |
| 3/11/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 3/19/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 3/24/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 3/31/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 4/9/2015       | 285,749                     | 411,283 | 4    | 99,243 |
| 4/15/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 4/22/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 4/30/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 5/8/2015       | 285,749                     | 411,283 | 4    | 99,243 |
| 5/15/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 5/18/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 5/27/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 6/5/2015       | 285,749                     | 411,283 | 4    | 99,243 |
| 6/12/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 6/18/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 7/2/2015       | 285,749                     | 411,283 | 4    | 99,243 |
| 7/10/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 7/17/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 7/24/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 7/30/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 8/7/2015       | 285,749                     | 411,283 | 4    | 99,243 |
| 8/14/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 8/21/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 8/28/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 9/4/2015       | 285,749                     | 411,283 | 4    | 99,243 |
| 9/11/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 10/2/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 10/9/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 10/16/2015     | 285,749                     | 411,283 | 4    | 99,243 |
| 10/23/2015     | 285,749                     | 411,283 | 4    | 99,243 |
| 10/30/2015     | 285,749                     | 411,283 | 4    | 99,243 |
| 11/6/2015      | 285,749                     | 411,283 | 4    | 99,243 |
| 11/13/2015     | 285,754                     | 411,283 | 4    | 99,243 |
| 11/20/2015     | 285,754                     | 411,283 | 4    | 99,243 |
| 11/24/2015     | 285,754                     | 411,283 | 4    | 99,243 |
| 12/4/2015      | 285,754                     | 411,283 | 4    | 99,243 |
| 12/9/2015      | 285,754                     | 411,283 | 4    | 99,243 |
| 12/22/2015     | 285,754                     | 411,283 | 4    | 99,243 |
|                |                             |         |      |        |
| <b>Totals:</b> | 5                           | -       | -    | -      |

## Local Readings - Skid T-9012

| Date       | PSH Readings |        |      |        | Tank Reading<br>T-9012 |
|------------|--------------|--------|------|--------|------------------------|
|            | RW-1R        | RW-2R  | RW-7 | RW-8R  |                        |
| 12/22/2014 | 53           | 12,685 | 51   | 32,860 | 10,596                 |
| 1/8/2015   | 53           | 13,656 | 51   | 32,865 | 11,407                 |
| 1/15/2015  | 53           | 13,657 | 51   | 33,491 | 11,915                 |
| 1/22/2015  | 53           | 13,657 | 51   | 35,000 | 14,640                 |
| 1/29/2015  | 53           | 13,657 | 51   | 36,075 | 16,601                 |
| 2/5/2015   | 53           | 13,657 | 51   | 36,075 | 4                      |
| 2/10/2015  | 53           | 13,657 | 51   | 36,075 | 4                      |
| 2/19/2015  | 53           | 13,657 | 51   | 37,792 | 1,761                  |
| 2/25/2015  | 53           | 13,657 | 51   | 38,692 | 2,718                  |
| 3/3/2015   | 53           | 13,657 | 51   | 39,123 | 3,363                  |
| 3/11/2015  | 53           | 13,657 | 51   | 39,760 | 3,844                  |
| 3/19/2015  | 53           | 13,657 | 51   | 39,887 | 4,001                  |
| 3/24/2015  | 53           | 13,657 | 51   | 40,024 | 4,167                  |
| 3/31/2015  | 53           | 13,657 | 51   | 40,024 | 4,167                  |
| 4/9/2015   | 53           | 13,657 | 51   | 40,024 | 4,167                  |
| 4/15/2015  | 53           | 13,657 | 51   | 40,024 | 4,167                  |
| 4/22/2015  | 53           | 13,657 | 51   | 40,024 | 4,167                  |
| 4/30/2015  | 53           | 13,657 | 51   | 40,024 | 4,167                  |
| 5/8/2015   | 53           | 13,657 | 51   | 40,024 | 4,355                  |
| 5/15/2015  | 53           | 13,657 | 51   | 40,024 | 4,355                  |
| 5/18/2015  | 53           | 13,657 | 51   | 40,024 | 4,355                  |
| 5/27/2015  | 53           | 13,657 | 51   | 40,878 | 5,061                  |
| 6/5/2015   | 53           | 13,657 | 51   | 42,046 | 6,309                  |
| 6/12/2015  | 53           | 13,657 | 51   | 42,046 | 6,309                  |
| 6/18/2015  | 53           | 13,657 | 51   | 42,046 | 6,309                  |
| 7/2/2015   | 53           | 13,657 | 51   | 42,046 | 6,310                  |
| 7/10/2015  | 53           | 13,657 | 51   | 42,046 | 6,465                  |
| 7/17/2015  | 53           | 13,657 | 51   | 42,046 | 6,466                  |
| 7/24/2015  | 53           | 13,657 | 51   | 42,046 | 6,470                  |
| 7/30/2015  | 53           | 13,657 | 51   | 42,046 | 6,471                  |
| 8/7/2015   | 53           | 13,657 | 51   | 42,046 | 6,471                  |
| 8/14/2015  | 53           | 13,657 | 51   | 42,046 | 6,472                  |
| 8/21/2015  | 53           | 13,657 | 51   | 42,046 | 6,472                  |
| 8/28/2015  | 53           | 13,657 | 51   | 42,046 | 6,659                  |
| 9/4/2015   | 53           | 13,657 | 469  | 42,046 | 7,244                  |
| 9/11/2015  | 53           | 13,657 | 531  | 42,046 | 7,389                  |
| 10/2/2015  | 53           | 13,657 | 675  | 42,046 | 8,424                  |
| 10/9/2015  | 53           | 13,657 | 677  | 42,046 | 8,664                  |
| 10/16/2015 | 53           | 13,657 | 677  | 42,046 | 8,664                  |
| 10/23/2015 | 53           | 13,657 | 679  | 42,046 | 8,664                  |
| 10/30/2015 | 53           | 13,657 | 679  | 42,046 | 8,664                  |
| 11/6/2015  | 53           | 13,657 | 679  | 42,046 | 8,664                  |
| 11/13/2015 | 53           | 13,657 | 679  | 42,046 | 8,837                  |
| 11/20/2015 | 53           | 13,657 | 679  | 42,046 | 8,838                  |
| 11/24/2015 | 53           | 13,657 | 679  | 42,046 | 8,838                  |
| 12/4/2015  | 53           | 13,657 | 679  | 42,046 | 8,838                  |
| 12/9/2015  | 53           | 13,657 | 679  | 42,046 | 8,838                  |
| 12/22/2015 | 53           | 13,657 | 679  | 42,046 | 8,838                  |
|            |              |        |      |        |                        |
| Totals:    | 1            | 972    | 629  | 9,186  | 16,597                 |

### Note:

\* = Flowmeter/pulse counter change-out.

### Automated Readings - Skid T-9003

| Date           | Water/Total Fluids Readings |         |
|----------------|-----------------------------|---------|
|                | RW-4R                       | RW-6R   |
| 1st Quarter    |                             |         |
| 12/29/2014     | 4,709                       | 469,967 |
| 1/5/2015       | 4,709                       | 469,967 |
| 1/12/2015      | 4,709                       | 469,967 |
| 1/19/2015      | 4,709                       | 469,967 |
| 1/26/2015      | 4,709                       | 469,967 |
| 2/3/2015       | 4,709                       | 469,967 |
| 2/9/2015       | 4,709                       | 469,967 |
| 2/16/2015      | 4,709                       | 469,967 |
| 2/23/2015      | 4,709                       | 469,967 |
| 3/2/2015       | 4,709                       | 469,968 |
| 3/9/2015       | 4,709                       | 469,968 |
| 3/16/2015      | 4,709                       | 469,968 |
| 3/23/2015      | 4,709                       | 469,968 |
| 3/30/2015      | 4,709                       | 469,968 |
| <b>Totals:</b> | -                           | 1       |
| 2nd Quarter    |                             |         |
| 4/6/2015       | 4,709                       | 469,968 |
| 4/13/2015      | 4,709                       | 469,968 |
| 4/20/2015      | 4,709                       | 469,968 |
| 4/27/2015      | 4,709                       | 469,968 |
| 5/4/2015       | 4,709                       | 469,968 |
| 5/11/2015      | 4,709                       | 469,968 |
| 5/18/2015      | 4,709                       | 469,968 |
| 5/25/2015      | 4,709                       | 469,968 |
| 6/1/2015       | 4,709                       | 469,968 |
| 6/8/2015       | 4,709                       | 469,968 |
| 6/15/2015      | 4,709                       | 469,968 |
| 6/22/2015      | 4,709                       | 469,968 |
| 6/29/2015      | 4,709                       | 469,968 |
| <b>Totals:</b> | -                           | -       |
| 3rd Quarter    |                             |         |
| 7/6/2015       | 4,709                       | 469,968 |
| 7/13/2015      | 4,709                       | 469,968 |
| 7/20/2015      | 4,709                       | 469,968 |
| 7/27/2015      | 4,709                       | 469,968 |
| 8/3/2015       | 4,709                       | 469,968 |
| 8/10/2015      | 4,709                       | 469,968 |
| 8/17/2015      | 4,709                       | 469,968 |
| 8/24/2015      | 4,709                       | 469,968 |
| 8/31/2015      | 4,709                       | 469,968 |
| 9/7/2015       | 4,709                       | 469,968 |
| 9/14/2015      | 4,709                       | 469,968 |
| 9/21/2015      | 4,709                       | 469,968 |
| 9/28/2015      | 4,709                       | 469,968 |
| <b>Totals:</b> | -                           | -       |

**Automated Readings - Skid T-9003**

| Date           | Water/Total Fluids Readings |         |
|----------------|-----------------------------|---------|
|                | RW-4R                       | RW-6R   |
| 4th Quarter    |                             |         |
| 10/5/2015      | 4,709                       | 469,968 |
| 10/12/2015     | 4,709                       | 469,968 |
| 10/19/2015     | 4,709                       | 469,968 |
| 10/26/2015     | 4,709                       | 469,968 |
| 11/2/2015      | 4,709                       | 469,968 |
| 11/9/2015      | 4,709                       | 469,968 |
| 11/16/2015     | 4,709                       | 469,968 |
| 11/23/2015     | 4,709                       | 469,968 |
| 11/30/2015     | 4,709                       | 469,968 |
| 12/7/2015      | 4,709                       | 469,968 |
| 12/14/2015     | 4,709                       | 469,968 |
| 12/21/2015     | 4,709                       | 469,968 |
| 12/28/2015     | 4,709                       | 469,968 |
| <b>Totals:</b> | -                           | -       |

### Automated Readings - Skid T-9003

| Date           | PSH Readings |              | Tank Reading |
|----------------|--------------|--------------|--------------|
|                | RW-4R        | RW-6R        | T-9003       |
| 1st Quarter    |              |              |              |
| 12/29/2014     | 1            | 31           | 1,984        |
| 1/5/2015       | 1            | 31           | 1,984        |
| 1/12/2015      | 1            | 31           | 1,984        |
| 1/19/2015      | 1            | 32           | 2,074        |
| 1/26/2015      | 1            | 1,955        | 3,276        |
| 2/3/2015       | 1            | 3,866        | 3,780        |
| 2/9/2015       | 1            | 5,240        | 4,973        |
| 2/16/2015      | 1            | 6,861        | 6,506        |
| 2/23/2015      | 1            | 8,176        | 7,532        |
| 3/2/2015       | 1            | 8,515        | 7,970        |
| 3/9/2015       | 1            | 8,516        | 8,043        |
| 3/16/2015      | 1            | 8,516        | 8,043        |
| 3/23/2015      | 1            | 8,516        | 8,043        |
| 3/30/2015      | 1            | 8,517        | 8,059        |
| <b>Totals:</b> | -            | <b>8,486</b> | <b>6,075</b> |
| 2nd Quarter    |              |              |              |
| 4/6/2015       | 1            | 8,517        | 8,059        |
| 4/13/2015      | 1            | 8,517        | 8,059        |
| 4/20/2015      | 1            | 8,517        | 8,059        |
| 4/27/2015      | 1            | 8,517        | 8,059        |
| 5/4/2015       | 1            | 8,517        | 9,004        |
| 5/11/2015      | 1            | 8,517        | 9,327        |
| 5/18/2015      | 1            | 8,517        | 9,734        |
| 5/25/2015      | 1            | 8,517        | 9,967        |
| 6/1/2015       | 1            | 8,520        | 10,496       |
| 6/8/2015       | 1            | 8,520        | 10,680       |
| 6/15/2015      | 1            | 8,520        | 10,680       |
| 6/22/2015      | 1            | 8,936        | 11,023       |
| 6/29/2015      | 1            | 9,739        | 12,566       |
| <b>Totals:</b> | -            | <b>1,222</b> | <b>4,507</b> |
| 3rd Quarter    |              |              |              |
| 7/6/2015       | 1            | 10,552       | 12,566       |
| 7/13/2015      | 1            | 10,869       | 13,250       |
| 7/20/2015      | 1            | 10,869       | 13,250       |
| 7/27/2015      | 1            | 10,869       | 13,250       |
| 8/3/2015       | 1            | 10,869       | 13,250       |
| 8/10/2015      | 1            | 10,869       | 13,250       |
| 8/17/2015      | 1            | 10,869       | 13,250       |
| 8/24/2015      | 1            | 10,869       | 13,250       |
| 8/31/2015      | 1            | 10,869       | 13,250       |
| 9/7/2015       | 1            | 10,869       | 13,250       |
| 9/14/2015      | 1            | 10,869       | 13,250       |
| 9/21/2015      | 1            | 10,869       | 13,250       |
| 9/28/2015      | 1            | 10,869       | 13,473       |
| <b>Totals:</b> | -            | <b>1,130</b> | <b>907</b>   |

**Automated Readings - Skid T-9003**

| Date           | PSH Readings |        | Tank Reading |
|----------------|--------------|--------|--------------|
|                | RW-4R        | RW-6R  | T-9003       |
| 4th Quarter    |              |        |              |
| 10/5/2015      | 1            | 10,869 | 13,473       |
| 10/12/2015     | 1            | 10,869 | 13,755       |
| 10/19/2015     | 1            | 10,869 | 13,755       |
| 10/26/2015     | 1            | 10,869 | 13,952       |
| 11/2/2015      | 1            | 10,869 | 13,952       |
| 11/9/2015      | 1            | 10,869 | 13,952       |
| 11/16/2015     | 1            | 10,869 | 13,952       |
| 11/23/2015     | 1            | 10,869 | 13,952       |
| 11/30/2015     | 1            | 10,869 | 13,964       |
| 12/7/2015      | 1            | 10,869 | 13,964       |
| 12/14/2015     | 1            | 10,869 | 14,050       |
| 12/21/2015     | 1            | 10,869 | 14,105       |
| 12/28/2015     | 1            | 10,869 | 14,647       |
| <b>Totals:</b> | -            | -      | <b>1,174</b> |

### Local Readings - Skid T-9003

| Date       | Water/Total Fluids Readings |                   |
|------------|-----------------------------|-------------------|
|            | RW-4R                       | RW-6R             |
| 12/22/2014 | -                           | 469,985           |
| 1/8/2015   | -                           | 469,985           |
| 1/15/2015  | -                           | 469,985           |
| 1/22/2015  | -                           | 469,985           |
| 1/29/2015  | -                           | 469,985           |
| 2/5/2015   | -                           | 469,985           |
| 2/10/2015  | -                           | 469,985           |
| 2/19/2015  | -                           | 469,985           |
| 2/25/2015  | -                           | 469,985           |
| 3/3/2015   | -                           | 469,985           |
| 3/11/2015  | -                           | 469,985           |
| 3/19/2015  | -                           | 469,985           |
| 3/24/2015  | -                           | 469,985           |
| 3/31/2015  | -                           | 469,985           |
| 4/9/2015   | -                           | 469,985           |
| 4/15/2015  | -                           | 469,985           |
| 4/22/2015  | -                           | 469,985           |
| 4/30/2015  | -                           | 469,985           |
| 5/8/2015   | -                           | 469,985           |
| 5/15/2015  | -                           | 469,985           |
| 5/18/2015  | -                           | 469,985           |
| 5/27/2015  | -                           | 469,985           |
| 6/5/2015   | -                           | 469,985           |
| 6/12/2015  | -                           | 469,985           |
| 6/18/2015  | -                           | 469,985           |
| 7/2/2015   | -                           | 469,985           |
| 7/10/2015  | -                           | 469,985           |
| 7/17/2015  | -                           | 469,985           |
| 7/24/2015  | -                           | 469,985           |
| 7/30/2015  | -                           | 469,985           |
| 8/7/2015   | -                           | 469,985           |
| 8/14/2015  | -                           | 469,985           |
| 8/21/2015  | -                           | 469,985           |
| 8/28/2015  | -                           | 469,985           |
| 9/4/2015   | -                           | 469,985           |
| 9/11/2015  | -                           | Well Inaccessible |
| 10/2/2015  | -                           | 469,985           |
| 10/9/2015  | -                           | 469,985           |
| 10/16/2015 | -                           | 469,985           |
| 10/23/2015 | -                           | 469,985           |
| 10/30/2015 | -                           | 469,985           |
| 11/6/2015  | -                           | 469,985           |
| 11/13/2015 | -                           | 469,985           |
| 11/20/2015 | -                           | 469,985           |
| 11/24/2015 | -                           | 469,985           |
| 12/4/2015  | -                           | 469,985           |
| 12/9/2015  | -                           | 469,985           |
| 12/22/2015 | -                           | 469,985           |
|            |                             |                   |
| Totals:    | -                           | -                 |

## Local Readings - Skid T-9003

| Date           | PSH Readings |                   | Tank Reading |
|----------------|--------------|-------------------|--------------|
|                | RW-4R        | RW-6R             | T-9003       |
| 12/22/2014     | 55           | 8,823             | 15,451       |
| 1/8/2015       | 55           | 9,166             | 15,451       |
| 1/15/2015      | 55           | 9,242             | 15,451       |
| 1/22/2015      | 55           | 10,746            | 1,202        |
| 1/29/2015      | 55           | 11,417            | 1,908        |
| 2/5/2015       | 55           | 13,348            | 3,890        |
| 2/10/2015      | 55           | 14,996            | 5,426        |
| 2/19/2015      | 55           | 17,016            | 7,297        |
| 2/25/2015      | 55           | 17,641            | 7,703        |
| 3/3/2015       | 55           | 18,078            | 8,080        |
| 3/11/2015      | 55           | 18,078            | 8,153        |
| 3/19/2015      | 55           | 18,078            | 8,153        |
| 3/24/2015      | 55           | 18,045            | 8,169        |
| 3/31/2015      | 55           | 18,045            | 8,169        |
| 4/9/2015       | 55           | 18,045            | 8,169        |
| 4/15/2015      | 55           | 18,045            | 8,169        |
| 4/22/2015      | 55           | 18,045            | 8,169        |
| 4/30/2015      | 55           | 18,045            | 8,169        |
| 5/8/2015       | 55           | 18,045            | 9,114        |
| 5/15/2015      | 55           | 18,045            | 9,437        |
| 5/18/2015      | 55           | 18,045            | 9,843        |
| 5/27/2015      | 55           | 18,045            | 10,275       |
| 6/5/2015       | 55           | 18,047            | 10,791       |
| 6/12/2015      | 55           | 18,047            | 10,791       |
| 6/18/2015      | 55           | 18,047            | 10,791       |
| 7/2/2015       | 55           | 18,047            | 12,157       |
| 7/10/2015      | 55           | 20,291            | 13,191       |
| 7/17/2015      | 55           | 20,291            | 13,361       |
| 7/24/2015      | 55           | 20,291            | 13,361       |
| 7/30/2015      | 55           | 20,291            | 13,361       |
| 8/7/2015       | 55           | 20,291            | 13,361       |
| 8/14/2015      | 55           | 20,291            | 13,361       |
| 8/21/2015      | 55           | 20,291            | 13,361       |
| 8/28/2015      | 55           | 20,292            | 13,361       |
| 9/4/2015       | 55           | 20,292            | 13,361       |
| 9/11/2015      | 55           | Well Inaccessible | 13,361       |
| 10/2/2015      | 55           | 20,292            | 13,584       |
| 10/9/2015      | 55           | 20,292            | 13,584       |
| 10/16/2015     | 55           | 20,292            | 13,865       |
| 10/23/2015     | 55           | 20,292            | 14,063       |
| 10/30/2015     | 55           | 20,292            | 14,063       |
| 11/6/2015      | 55           | 20,292            | 14,063       |
| 11/13/2015     | 55           | 20,292            | 14,063       |
| 11/20/2015     | 55           | 20,292            | 14,063       |
| 11/24/2015     | 55           | 20,292            | 14,070       |
| 12/4/2015      | 55           | 20,292            | 14,105       |
| 12/9/2015      | 55           | 20,292            | 14,161       |
| 12/22/2015     | 55           | 20,292            | 14,232       |
|                |              |                   |              |
| <b>Totals:</b> | 0            | 11,469            | 13,526       |

**Note:**

\* = Flowmeter/pulse counter change-out.

## Automated Readings - Skid T-9021

| Date           | Water/Total Fluids Readings |          |          |
|----------------|-----------------------------|----------|----------|
|                | RW-5R                       | RW-15    | RW-19    |
| 1st Quarter    |                             |          |          |
| 12/29/2014     | 23,977                      | -        | 58,011   |
| 1/5/2015       | 23,977                      | -        | 58,011   |
| 1/12/2015      | 23,977                      | -        | 58,011   |
| 1/19/2015      | 23,977                      | -        | 58,011   |
| 1/26/2015      | 23,977                      | -        | 58,011   |
| 2/3/2015       | 23,978                      | -        | 58,011   |
| 2/9/2015       | 23,978                      | -        | 58,011   |
| 2/16/2015      | 23,978                      | -        | 58,011   |
| 2/23/2015      | 23,978                      | -        | 58,011   |
| 3/2/2015       | 23,978                      | -        | 58,011   |
| 3/9/2015       | 23,978                      | -        | 58,011   |
| 3/16/2015      | 23,978                      | -        | 58,011   |
| 3/23/2015      | 23,978                      | -        | 58,011   |
| 3/30/2015      | 23,978                      | -        | 58,011   |
| <b>Totals:</b> | <b>1</b>                    | <b>-</b> | <b>-</b> |
| 2nd Quarter    |                             |          |          |
| 4/6/2015       | 23,978                      | -        | 58,011   |
| 4/13/2015      | 23,978                      | -        | 58,011   |
| 4/20/2015      | 23,978                      | -        | 58,011   |
| 4/27/2015      | 23,978                      | -        | 58,011   |
| 5/4/2015       | 23,978                      | -        | 58,011   |
| 5/11/2015      | 23,978                      | -        | 58,011   |
| 5/18/2015      | 23,978                      | -        | 58,011   |
| 5/25/2015      | 23,978                      | -        | 58,011   |
| 6/1/2015       | 23,978                      | -        | 58,011   |
| 6/8/2015       | 23,978                      | -        | 58,011   |
| 6/15/2015      | 23,978                      | -        | 58,011   |
| 6/22/2015      | 23,978                      | -        | 58,011   |
| 6/29/2015      | 23,978                      | -        | 58,011   |
| <b>Totals:</b> | <b>-</b>                    | <b>-</b> | <b>-</b> |
| 3rd Quarter    |                             |          |          |
| 7/6/2015       | 23,978                      | -        | 58,011   |
| 7/13/2015      | 23,978                      | -        | 58,011   |
| 7/20/2015      | 23,978                      | -        | 58,011   |
| 7/27/2015      | 23,978                      | -        | 58,011   |
| 8/3/2015       | 23,978                      | -        | 58,011   |
| 8/10/2015      | 23,978                      | -        | 58,011   |
| 8/17/2015      | 23,978                      | -        | 58,011   |
| 8/24/2015      | 23,978                      | -        | 58,011   |
| 8/31/2015      | 23,978                      | -        | 58,011   |
| 9/7/2015       | 23,978                      | -        | 58,011   |
| 9/14/2015      | 23,978                      | -        | 58,011   |
| 9/21/2015      | 23,978                      | -        | 58,011   |
| 9/28/2015      | 23,978                      | -        | 58,011   |
| <b>Totals:</b> | <b>-</b>                    | <b>-</b> | <b>-</b> |

## Automated Readings - Skid T-9021

| Date           | Water/Total Fluids Readings |       |        |
|----------------|-----------------------------|-------|--------|
|                | RW-5R                       | RW-15 | RW-19  |
| 4th Quarter    |                             |       |        |
| 10/5/2015      | 23,978                      | -     | 58,011 |
| 10/12/2015     | 23,978                      | -     | 58,011 |
| 10/19/2015     | 23,978                      | -     | 58,011 |
| 10/26/2015     | 23,978                      | -     | 58,011 |
| 11/2/2015      | 23,978                      | -     | 58,011 |
| 11/9/2015      | 23,978                      | -     | 58,011 |
| 11/16/2015     | 23,978                      | -     | 58,011 |
| 11/23/2015     | 23,978                      | -     | 58,011 |
| 11/30/2015     | 23,978                      | -     | 58,011 |
| 12/7/2015      | 23,978                      | -     | 58,011 |
| 12/14/2015     | 23,978                      | -     | 58,011 |
| 12/21/2015     | 23,978                      | -     | 58,011 |
| 12/28/2015     | 23,978                      | -     | 58,011 |
| <b>Totals:</b> | -                           | -     | -      |

## Automated Readings - Skid T-9021

| Date           | PSH Readings |              |              | Tank Reading  |
|----------------|--------------|--------------|--------------|---------------|
|                | RW-5R        | RW-15        | RW-19        | T-9021        |
| 1st Quarter    |              |              |              |               |
| 12/29/2014     | 2,317        | 993          | 299          | 9,173         |
| 1/5/2015       | 2,434        | 994          | 299          | 9,174         |
| 1/12/2015      | 2,434        | 995          | 299          | 9,177         |
| 1/19/2015      | 3,041        | 997          | 299          | 9,861         |
| 1/26/2015      | 4,046        | 997          | 299          | 11,030        |
| 2/3/2015       | 4,051        | 998          | 299          | 11,039        |
| 2/9/2015       | 4,052        | 998          | 299          | 11,045        |
| 2/16/2015      | 4,053        | 1,021        | 299          | 11,201        |
| 2/23/2015      | 4,053        | 1,164        | 299          | 11,413        |
| 3/2/2015       | 4,332        | 1,164        | 299          | 11,663        |
| 3/9/2015       | 4,519        | 1,167        | 299          | 11,825        |
| 3/16/2015      | 5,991        | 1,180        | 299          | 13,251        |
| 3/23/2015      | 7,957        | 1,218        | 299          | 15,003        |
| 3/30/2015      | 8,586        | 1,242        | 300          | 15,610        |
| <b>Totals:</b> | <b>6,269</b> | <b>249</b>   | <b>1</b>     | <b>6,437</b>  |
| 2nd Quarter    |              |              |              |               |
| 4/6/2015       | 8,656        | 1,572        | 300          | 16,317        |
| 4/13/2015      | 8,656        | 2,037        | 300          | 17,281        |
| 4/20/2015      | 9,426        | 2,037        | 300          | 17,281        |
| 4/27/2015      | 10,228       | 2,647        | 300          | 19,287        |
| 5/4/2015       | 10,235       | 2,747        | 301          | 20,501        |
| 5/11/2015      | 10,235       | 2,866        | 2,697        | 22,340        |
| 5/18/2015      | 10,235       | 2,990        | 5,652        | 25,392        |
| 5/25/2015      | 10,235       | 3,255        | 5,652        | 26,097        |
| 6/1/2015       | 10,235       | 3,412        | 5,652        | 26,814        |
| 6/8/2015       | 10,235       | 3,633        | 5,653        | 27,213        |
| 6/15/2015      | 10,235       | 4,088        | 5,653        | 27,690        |
| 6/22/2015      | 10,235       | 4,304        | 5,653        | 27,883        |
| 6/29/2015      | 10,235       | 4,658        | 5,653        | 28,288        |
| <b>Totals:</b> | <b>1,649</b> | <b>3,416</b> | <b>5,353</b> | <b>12,678</b> |
| 3rd Quarter    |              |              |              |               |
| 7/6/2015       | 10,235       | 4,658        | 5,653        | 28,288        |
| 7/13/2015      | 10,235       | 5,099        | 5,653        | 29,095        |
| 7/20/2015      | 10,235       | 5,376        | 5,656        | 29,378        |
| 7/27/2015      | 10,235       | 5,576        | 5,656        | 29,505        |
| 8/3/2015       | 10,235       | 5,753        | 5,656        | 29,775        |
| 8/10/2015      | 10,235       | 5,933        | 5,656        | 29,915        |
| 8/17/2015      | 10,235       | 6,036        | 5,656        | 30,041        |
| 8/24/2015      | 10,235       | 6,448        | 5,657        | 30,589        |
| 8/31/2015      | 10,235       | 6,624        | 5,657        | 30,893        |
| 9/7/2015       | 10,235       | 6,791        | 5,658        | 31,181        |
| 9/14/2015      | 10,235       | 7,941        | 5,658        | 32,710        |
| 9/21/2015      | 10,235       | 8,591        | 5,658        | 33,586        |
| 9/28/2015      | 10,235       | 8,727        | 5,658        | 34,071        |

## Automated Readings - Skid T-9021

|                | PSH Readings |        |       | Tank Reading |
|----------------|--------------|--------|-------|--------------|
| Date           | RW-5R        | RW-15  | RW-19 | T-9021       |
| <b>Totals:</b> | -            | 4,069  | 5     | 5,783        |
| 4th Quarter    |              |        |       |              |
| 10/5/2015      | 10,235       | 8,824  | 5,659 | 34,527       |
| 10/12/2015     | 10,235       | 8,893  | 5,659 | 35,103       |
| 10/19/2015     | 10,235       | 8,986  | 5,659 | 35,103       |
| 10/26/2015     | 10,235       | 9,049  | 5,659 | 35,420       |
| 11/2/2015      | 10,235       | 9,129  | 5,659 | 35,420       |
| 11/9/2015      | 10,235       | 9,185  | 5,659 | 35,604       |
| 11/16/2015     | 10,235       | 9,241  | 5,660 | 35,604       |
| 11/23/2015     | 10,235       | 9,241  | 5,660 | 35,604       |
| 11/30/2015     | 10,235       | 9,361  | 5,660 | 35,606       |
| 12/7/2015      | 10,235       | 9,361  | 5,660 | 35,606       |
| 12/14/2015     | 10,235       | 9,881  | 5,660 | 36,342       |
| 12/21/2015     | 10,235       | 11,534 | 5,660 | 39,368       |
| 12/28/2015     | 10,235       | 12,117 | 5,660 | 44,515       |
| <b>Totals:</b> | -            | 3,390  | 2     | 10,444       |

**Local Readings - Skid T-9021**

| <b>Date</b> | <b>Water/Total Fluids Readings</b> |              |              |
|-------------|------------------------------------|--------------|--------------|
|             | <b>RW-5R</b>                       | <b>RW-15</b> | <b>RW-19</b> |
| 12/22/2014  | 23,974                             | -            | 58,013       |
| 1/8/2015    | 23,974                             | -            | 58,013       |
| 1/15/2015   | 23,974                             | -            | 58,013       |
| 1/22/2015   | 23,974                             | -            | 58,013       |
| 1/29/2015   | 23,974                             | -            | 58,013       |
| 2/5/2015    | 23,974                             | -            | 58,013       |
| 2/10/2015   | 23,974                             | -            | 58,013       |
| 2/19/2015   | 23,974                             | -            | 58,013       |
| 2/25/2015   | 23,974                             | -            | 58,013       |
| 3/3/2015    | 23,974                             | -            | 58,013       |
| 3/11/2015   | 23,974                             | -            | 58,013       |
| 3/19/2015   | 23,974                             | -            | 58,013       |
| 3/24/2015   | 23,974                             | -            | 58,013       |
| 3/31/2015   | 23,974                             | -            | 58,013       |
| 4/9/2015    | 23,974                             | -            | 58,013       |
| 4/15/2015   | 23,974                             | -            | 58,013       |
| 4/22/2015   | 23,974                             | -            | 58,013       |
| 4/30/2015   | 23,975                             | -            | 58,013       |
| 5/8/2015    | 23,975                             | -            | 58,013       |
| 5/15/2015   | 23,975                             | -            | 58,013       |
| 5/18/2015   | 23,975                             | -            | 58,013       |
| 5/27/2015   | 23,975                             | -            | 58,013       |
| 6/5/2015    | 23,975                             | -            | 58,013       |
| 6/12/2015   | 23,975                             | -            | 58,013       |
| 6/18/2015   | 23,975                             | -            | 58,013       |
| 7/2/2015    | 23,975                             | -            | 58,013       |
| 7/10/2015   | 23,975                             | -            | 58,013       |
| 7/17/2015   | 23,975                             | -            | 58,013       |
| 7/24/2015   | 23,975                             | -            | 58,013       |
| 7/30/2015   | 23,975                             | -            | 58,013       |
| 8/7/2015    | 23,975                             | -            | 58,013       |
| 8/14/2015   | 23,975                             | -            | 58,013       |
| 8/21/2015   | 23,975                             | -            | 58,013       |
| 8/28/2015   | 23,975                             | -            | 58,013       |
| 9/4/2015    | 23,975                             | -            | 58,013       |
| 9/11/2015   | 23,975                             | -            | 58,013       |
| 10/2/2015   | 23,975                             | -            | 58,013       |
| 10/9/2015   | 23,975                             | -            | 58,013       |
| 10/16/2015  | 23,975                             | -            | 58,013       |
| 10/23/2015  | 23,975                             | -            | 58,013       |
| 10/30/2015  | 23,975                             | -            | 58,013       |
| 11/6/2015   | 23,975                             | -            | 58,013       |

## Local Readings - Skid T-9021

| Date           | Water/Total Fluids Readings |       |        |
|----------------|-----------------------------|-------|--------|
|                | RW-5R                       | RW-15 | RW-19  |
| 11/13/2015     | 23,975                      | -     | 58,013 |
| 11/20/2015     | 23,975                      | -     | 58,013 |
| 11/24/2015     | 23,975                      | -     | 58,013 |
| 12/4/2015      | 23,975                      | -     | 58,013 |
| 12/9/2015      | 23,975                      | -     | 58,013 |
| 12/22/2015     | 23,975                      | -     | 58,013 |
|                |                             |       |        |
| <b>Totals:</b> | 1                           | -     | -      |

## Local Readings - Skid T-9021

| Date       | PSH Readings |       |       | Tank Reading |
|------------|--------------|-------|-------|--------------|
|            | RW-5R        | RW-15 | RW-19 | T-9021       |
| 12/22/2014 | 1,606        | 1,057 | 426   | 1,553        |
| 1/8/2015   | 1,728        | 1,057 | 426   | 1,555        |
| 1/15/2015  | 1,992        | 1,062 | 426   | 1,557        |
| 1/22/2015  | 2,348        | 1,062 | 426   | 2,506        |
| 1/29/2015  | 2,353        | 1,062 | 426   | 1            |
| 2/5/2015   | 2,376        | 1,063 | 426   | 9            |
| 2/10/2015  | 2,378        | 1,063 | 426   | 155          |
| 2/19/2015  | 2,378        | 1,180 | 426   | 382          |
| 2/25/2015  | 2,378        | 1,229 | 426   | 575          |
| 3/3/2015   | 2,510        | 1,229 | 427   | 675          |
| 3/11/2015  | 2,717        | 1,229 | 427   | 805          |
| 3/19/2015  | 4,905        | 1,251 | 427   | 2,899        |
| 3/24/2015  | 6,812        | 1,291 | 427   | 4,252        |
| 3/31/2015  | 9,847        | 1,311 | 427   | 4,549        |
| 4/9/2015   | 12,979       | 1,868 | 427   | 5,850        |
| 4/15/2015  | 14,142       | 2,232 | 427   | 6,630        |
| 4/22/2015  | 15,003       | 2,546 | 427   | 7,719        |
| 4/30/2015  | 15,555       | 2,786 | 427   | 8,632        |
| 5/8/2015   | 15,555       | 2,812 | 429   | 9,607        |
| 5/15/2015  | 15,555       | 2,977 | 2,604 | 13,407       |
| 5/18/2015  | 15,555       | 3,057 | 3,153 | 14,499       |
| 5/27/2015  | 15,555       | 3,388 | 3,153 | 15,431       |
| 6/5/2015   | 15,555       | 3,510 | 3,153 | 16,189       |
| 6/12/2015  | 15,555       | 3,939 | 3,153 | 16,664       |
| 6/18/2015  | 15,555       | 4,343 | 3,153 | 16,989       |
| 7/2/2015   | 15,555       | 4,707 | 3,154 | 17,394       |
| 7/10/2015  | 15,555       | 4,949 | 3,154 | 18,054       |
| 7/17/2015  | 15,555       | 5,257 | 3,155 | 18,356       |
| 7/24/2015  | 15,555       | 5,598 | 3,155 | 18,485       |
| 7/30/2015  | 15,555       | 5,779 | 3,156 | 18,882       |
| 8/7/2015   | 15,555       | 5,942 | 3,157 | 18,890       |
| 8/14/2015  | 15,555       | 6,075 | 3,157 | 19,022       |
| 8/21/2015  | 15,555       | 6,390 | 3,157 | 19,537       |
| 8/28/2015  | 15,555       | 6,601 | 3,157 | 19,852       |
| 9/4/2015   | 15,555       | 6,747 | 3,158 | 20,288       |
| 9/11/2015  | 15,555       | 7,077 | 3,158 | 20,543       |
| 10/2/2015  | 15,555       | 8,829 | 3,159 | 23,316       |
| 10/9/2015  | 15,555       | 8,936 | 3,159 | 24,210       |
| 10/16/2015 | 15,555       | 9,010 | 3,159 | 24,210       |
| 10/23/2015 | 15,555       | 9,081 | 3,159 | 24,527       |
| 10/30/2015 | 15,555       | 9,174 | 3,159 | 24,527       |

## Local Readings - Skid T-9021

| Date           | PSH Readings |        |       | Tank Reading |
|----------------|--------------|--------|-------|--------------|
|                | RW-5R        | RW-15  | RW-19 | T-9021       |
| 11/6/2015      | 15,555       | 9,206  | 3,159 | 24,527       |
| 11/13/2015     | 15,555       | 9,274  | 3,159 | 24,711       |
| 11/20/2015     | 15,555       | 9,347  | 3,159 | 24,711       |
| 11/24/2015     | 15,555       | 9,382  | 3,159 | 24,711       |
| 12/4/2015      | 15,555       | 9,450  | 3,160 | 24,713       |
| 12/9/2015      | 15,555       | 9,530  | 3,160 | 24,713       |
| 12/22/2015     | 15,555       | 11,790 | 3,160 | 28,730       |
|                |              |        |       |              |
| <b>Totals:</b> | 13,949       | 10,733 | 2,734 | 29,682       |

### Note:

\* = Flowmeter/pulse counter change-out.

PSH values for RW-5 have been revised to reflect a closed discharge valve that indicated greater volume than actually recovered.

PSH values for RW-19 may contain an unknown amount of water due to pump being set below water level.

## Automated Readings - Skid T-9020

| Date           | Water/Total Fluids Readings |         |         |                |        |
|----------------|-----------------------------|---------|---------|----------------|--------|
|                | RW-12R                      | RW-13R  | RW-14R  | RW-20          | RW-22  |
| 1st Quarter    |                             |         |         |                |        |
| 12/29/2014     | 233                         | 225,001 | 355,318 | 996,779        | 52,430 |
| 1/5/2015       | 233                         | 225,001 | 355,318 | 1,061,430      | 52,430 |
| 1/12/2015      | 233                         | 225,001 | 355,318 | 1,122,309      | 52,430 |
| 1/19/2015      | 233                         | 225,001 | 355,318 | 1,179,466      | 52,430 |
| 1/26/2015      | 233                         | 225,001 | 355,318 | 1,232,403      | 52,430 |
| 2/3/2015       | 233                         | 225,001 | 355,318 | 1,288,636      | 52,430 |
| 2/9/2015       | 233                         | 225,001 | 355,318 | 1,326,365      | 52,430 |
| 2/16/2015      | 233                         | 225,001 | 355,318 | 1,368,078      | 52,430 |
| 2/23/2015      | 233                         | 225,001 | 355,318 | 1,406,651      | 52,430 |
| 3/2/2015       | 233                         | 225,001 | 355,318 | 1,443,319      | 52,430 |
| 3/9/2015       | 233                         | 225,001 | 355,318 | 1,476,010      | 52,430 |
| 3/16/2015      | 233                         | 225,001 | 355,318 | 1,505,114      | 52,430 |
| 3/23/2015      | 233                         | 225,001 | 355,318 | 1,531,813      | 52,430 |
| 3/30/2015      | 233                         | 225,001 | 355,318 | 1,555,294      | 52,430 |
| <b>Totals:</b> | -                           | -       | -       | <b>558,515</b> | -      |
| 2nd Quarter    |                             |         |         |                |        |
| 4/6/2015       | 233                         | 225,001 | 355,318 | 1,577,222      | 52,430 |
| 4/13/2015      | 233                         | 225,001 | 355,318 | 1,595,595      | 52,430 |
| 4/20/2015      | 234                         | 225,001 | 355,318 | 1,595,595      | 52,430 |
| 4/27/2015      | 234                         | 225,001 | 355,318 | 1,690,784      | 52,430 |
| 5/4/2015       | 234                         | 225,001 | 355,318 | 1,747,168      | 52,430 |
| 5/11/2015      | 234                         | 225,001 | 355,318 | 1,801,431      | 52,430 |
| 5/18/2015      | 234                         | 225,001 | 355,318 | 1,867,904      | 52,430 |
| 5/25/2015      | 234                         | 225,001 | 355,318 | 1,944,113      | 52,430 |
| 6/1/2015       | 234                         | 225,001 | 355,318 | 2,016,712      | 52,430 |
| 6/8/2015       | 234                         | 225,001 | 355,318 | 2,093,159      | 52,430 |
| 6/15/2015      | 234                         | 225,001 | 355,318 | 2,172,503      | 52,430 |
| 6/22/2015      | 234                         | 225,001 | 355,318 | 2,257,539      | 52,430 |
| 6/29/2015      | 234                         | 225,001 | 355,318 | 2,426,680      | 52,430 |
| <b>Totals:</b> | 1                           | -       | -       | <b>871,386</b> | -      |
| 3rd Quarter    |                             |         |         |                |        |
| 7/6/2015       | 234                         | 225,001 | 355,318 | 2,426,680      | 52,430 |
| 7/13/2015      | 234                         | 225,001 | 355,318 | 2,510,761      | 52,430 |
| 7/20/2015      | 234                         | 225,001 | 355,318 | 2,588,095      | 52,430 |
| 7/27/2015      | 234                         | 225,001 | 355,318 | 2,660,547      | 52,430 |
| 8/3/2015       | 234                         | 225,001 | 355,318 | 2,727,005      | 52,430 |
| 8/10/2015      | 234                         | 225,001 | 355,318 | 2,792,489      | 52,430 |
| 8/17/2015      | 234                         | 225,001 | 355,318 | 2,854,270      | 52,430 |
| 8/24/2015      | 234                         | 225,001 | 355,318 | 2,919,144      | 52,430 |
| 8/31/2015      | 234                         | 225,001 | 355,318 | 2,982,771      | 52,430 |
| 9/7/2015       | 234                         | 225,001 | 355,318 | 3,051,402      | 52,430 |
| 9/14/2015      | 234                         | 225,001 | 355,318 | 3,092,534      | 52,430 |
| 9/21/2015      | 234                         | 225,001 | 355,318 | 3,142,046      | 52,430 |
| 9/28/2015      | 234                         | 225,001 | 355,318 | 3,197,902      | 52,430 |
| <b>Totals:</b> | -                           | -       | -       | <b>771,222</b> | -      |

## Automated Readings - Skid T-9020

| Date           | Water/Total Fluids Readings |         |         |                |        |
|----------------|-----------------------------|---------|---------|----------------|--------|
|                | RW-12R                      | RW-13R  | RW-14R  | RW-20          | RW-22  |
| 4th Quarter    |                             |         |         |                |        |
| 10/5/2015      | 234                         | 225,001 | 355,318 | 3,256,984      | 52,430 |
| 10/12/2015     | 234                         | 225,001 | 355,318 | 3,323,448      | 52,430 |
| 10/19/2015     | 234                         | 225,001 | 355,318 | 3,392,208      | 52,430 |
| 10/26/2015     | 234                         | 225,001 | 355,318 | 3,456,385      | 52,430 |
| 11/2/2015      | 234                         | 225,001 | 355,318 | 3,503,240      | 52,430 |
| 11/9/2015      | 234                         | 225,001 | 355,318 | 3,561,324      | 52,430 |
| 11/16/2015     | 234                         | 225,001 | 355,318 | 3,613,829      | 52,430 |
| 11/23/2015     | 234                         | 225,001 | 355,318 | 3,613,829      | 52,430 |
| 11/30/2015     | 234                         | 225,001 | 355,318 | 3,707,396      | 52,430 |
| 12/7/2015      | 234                         | 225,001 | 355,318 | 3,707,396      | 52,430 |
| 12/14/2015     | 234                         | 225,001 | 355,318 | 3,782,114      | 52,430 |
| 12/21/2015     | 234                         | 225,001 | 355,318 | 3,810,860      | 52,430 |
| 12/28/2015     | 234                         | 225,001 | 355,318 | 3,837,093      | 52,430 |
| <b>Totals:</b> | -                           | -       | -       | <b>639,191</b> | -      |

## Automated Readings - Skid T-9020

| Date           | PSH Readings |              |              |          |           | Tank Reading |
|----------------|--------------|--------------|--------------|----------|-----------|--------------|
|                | RW-12R       | RW-13R       | RW-14R       | RW-20    | RW-22     | T-9020       |
| 1st Quarter    |              |              |              |          |           |              |
| 12/29/2014     | 4,746        | 6,799        | 40,322       | 3        | 5,742     | 46,208       |
| 1/5/2015       | 4,746        | 6,799        | 40,583       | 3        | 5,742     | 46,509       |
| 1/12/2015      | 4,746        | 6,799        | 40,740       | 3        | 5,743     | 46,651       |
| 1/19/2015      | 4,746        | 6,800        | 41,254       | 3        | 5,744     | 46,960       |
| 1/26/2015      | 4,748        | 6,800        | 42,135       | 3        | 5,744     | 47,691       |
| 2/3/2015       | 4,748        | 6,800        | 42,157       | 3        | 5,744     | 47,706       |
| 2/9/2015       | 4,748        | 6,800        | 42,157       | 3        | 5,744     | 47,712       |
| 2/16/2015      | 4,748        | 6,800        | 42,157       | 3        | 5,744     | 47,714       |
| 2/23/2015      | 4,748        | 6,800        | 42,157       | 3        | 5,744     | 47,908       |
| 3/2/2015       | 4,748        | 6,800        | 42,157       | 3        | 5,744     | 48,150       |
| 3/9/2015       | 4,748        | 6,800        | 42,157       | 3        | 5,744     | 48,258       |
| 3/16/2015      | 4,748        | 6,800        | 42,157       | 3        | 5,744     | 48,281       |
| 3/23/2015      | 4,748        | 6,800        | 42,157       | 3        | 5,744     | 48,281       |
| 3/30/2015      | 4,748        | 6,800        | 42,157       | 3        | 5,744     | 48,292       |
| <b>Totals:</b> | <b>2</b>     | <b>1</b>     | <b>1,835</b> | <b>-</b> | <b>2</b>  | <b>2,084</b> |
| 2nd Quarter    |              |              |              |          |           |              |
| 4/6/2015       | 4,748        | 6,800        | 42,157       | 3        | 5,744     | 48,439       |
| 4/13/2015      | 4,753        | 6,802        | 42,159       | 4        | 5,746     | 48,586       |
| 4/20/2015      | 4,754        | 6,802        | 42,159       | 4        | 5,746     | 48,586       |
| 4/27/2015      | 4,754        | 6,802        | 42,159       | 4        | 5,746     | 48,586       |
| 5/4/2015       | 4,754        | 7,493        | 42,159       | 4        | 5,746     | 49,369       |
| 5/11/2015      | 4,754        | 7,859        | 42,159       | 4        | 5,747     | 49,831       |
| 5/18/2015      | 4,754        | 8,897        | 42,159       | 4        | 5,755     | 51,105       |
| 5/25/2015      | 4,755        | 9,337        | 42,159       | 4        | 5,755     | 51,982       |
| 6/1/2015       | 4,755        | 9,469        | 42,545       | 4        | 5,755     | 52,765       |
| 6/8/2015       | 4,755        | 9,469        | 42,545       | 4        | 5,755     | 52,949       |
| 6/15/2015      | 4,755        | 9,469        | 42,545       | 4        | 5,756     | 53,533       |
| 6/22/2015      | 4,755        | 9,470        | 42,545       | 4        | 5,756     | 53,891       |
| 6/29/2015      | 4,755        | 9,471        | 42,545       | 4        | 5,756     | 53,891       |
| <b>Totals:</b> | <b>7</b>     | <b>2,671</b> | <b>388</b>   | <b>1</b> | <b>12</b> | <b>5,599</b> |
| 3rd Quarter    |              |              |              |          |           |              |
| 7/6/2015       | 4,755        | 9,471        | 42,545       | 4        | 5,756     | 53,891       |
| 7/13/2015      | 4,755        | 9,473        | 42,545       | 4        | 5,756     | 54,690       |
| 7/20/2015      | 4,755        | 9,474        | 42,550       | 4        | 5,756     | 55,260       |
| 7/27/2015      | 4,755        | 9,474        | 42,550       | 4        | 5,756     | 55,263       |
| 8/3/2015       | 4,755        | 9,474        | 42,550       | 4        | 5,756     | 55,596       |
| 8/10/2015      | 4,755        | 9,474        | 42,550       | 4        | 5,756     | 55,596       |
| 8/17/2015      | 4,755        | 9,474        | 42,550       | 4        | 5,756     | 55,639       |
| 8/24/2015      | 4,755        | 9,475        | 42,550       | 4        | 5,756     | 55,639       |
| 8/31/2015      | 4,755        | 9,475        | 42,550       | 4        | 5,757     | 55,640       |
| 9/7/2015       | 4,755        | 9,476        | 42,550       | 4        | 5,758     | 55,640       |
| 9/14/2015      | 4,755        | 9,476        | 42,550       | 4        | 5,759     | 55,640       |
| 9/21/2015      | 4,755        | 9,476        | 42,550       | 4        | 5,759     | 55,640       |
| 9/28/2015      | 4,755        | 9,476        | 42,550       | 4        | 5,759     | 55,640       |
| 10/5/2015      | 4,755        | 9,476        | 42,550       | 4        | 5,759     | 55,640       |
| <b>Totals:</b> | <b>-</b>     | <b>5</b>     | <b>5</b>     | <b>-</b> | <b>3</b>  | <b>1,749</b> |

**Automated Readings - Skid T-9020**

|                | PSH Readings |        |        |       |       | Tank Reading |
|----------------|--------------|--------|--------|-------|-------|--------------|
| Date           | RW-12R       | RW-13R | RW-14R | RW-20 | RW-22 | T-9020       |
| 4th Quarter    |              |        |        |       |       |              |
| 10/5/2015      | 4,755        | 9,476  | 42,550 | 4     | 5,759 | 55,640       |
| 10/12/2015     | 4,755        | 9,476  | 42,550 | 4     | 5,759 | 55,833       |
| 10/19/2015     | 4,755        | 9,476  | 42,550 | 4     | 5,759 | 55,833       |
| 10/26/2015     | 4,755        | 9,476  | 42,550 | 4     | 5,759 | 55,833       |
| 11/2/2015      | 4,755        | 9,476  | 42,550 | 4     | 5,759 | 55,833       |
| 11/9/2015      | 4,755        | 9,476  | 42,550 | 4     | 5,759 | 55,833       |
| 11/16/2015     | 4,755        | 9,476  | 42,550 | 4     | 5,759 | 55,833       |
| 11/23/2015     | 4,755        | 9,476  | 42,550 | 4     | 5,759 | 55,833       |
| 11/30/2015     | 4,755        | 9,476  | 42,550 | 4     | 5,759 | 55,833       |
| 12/7/2015      | 4,755        | 9,476  | 42,550 | 4     | 5,759 | 55,833       |
| 12/14/2015     | 4,755        | 9,476  | 42,550 | 4     | 5,759 | 55,958       |
| 12/21/2015     | 4,755        | 9,476  | 42,550 | 4     | 5,759 | 55,958       |
| 12/28/2015     | 4,755        | 9,476  | 42,550 | 4     | 5,759 | 55,958       |
| <b>Totals:</b> | -            | -      | -      | -     | -     | <b>318</b>   |

# Local Readings - Skid T-9020

| Date       | Water/Total Fluids Readings |         |         |           |         |
|------------|-----------------------------|---------|---------|-----------|---------|
|            | RW-12R                      | RW-13R  | RW-14R  | RW-20     | RW-22   |
| 12/22/2014 | 234                         | 225,009 | 355,380 | 930,895   | 52,428  |
| 1/8/2015   | 234                         | 225,009 | 355,380 | 1,091,004 | 52,428  |
| 1/15/2015  | 234                         | 225,009 | 355,380 | 1,156,994 | 52,428  |
| 1/22/2015  | 234                         | 225,009 | 355,380 | 1,189,253 | 52,428  |
| 1/29/2015  | 234                         | 225,009 | 355,380 | 1,241,697 | 52,428  |
| 2/5/2015   | 234                         | 225,009 | 355,380 | 1,302,920 | 52,428  |
| 2/10/2015  | 234                         | 225,009 | 355,380 | 1,334,878 | 52,428  |
| 2/19/2015  | 234                         | 225,009 | 355,380 | 1,381,269 | 52,428  |
| 2/25/2015  | 234                         | 225,009 | 355,380 | 1,418,584 | 52,428  |
| 3/3/2015   | 234                         | 225,009 | 355,380 | 1,449,323 | 52,428  |
| 3/11/2015  | 234                         | 225,009 | 355,380 | 1,485,986 | 52,428  |
| 3/19/2015  | 234                         | 225,009 | 355,380 | 1,517,552 | 52,428  |
| 3/24/2015  | 234                         | 225,009 | 355,380 | 1,536,322 | 52,428  |
| 3/31/2015  | 234                         | 225,009 | 355,380 | 1,559,099 | 52,428  |
| 4/9/2015   | 234                         | 225,009 | 355,380 | 1,583,656 | 52,428  |
| 4/15/2015  | 234                         | 225,009 | 355,380 | 1,621,796 | 52,428  |
| 4/22/2015  | 234                         | 225,009 | 355,380 | 1,631,647 | 52,428  |
| 4/30/2015  | 234                         | 225,009 | 355,380 | 1,680,923 | 52,428  |
| 5/8/2015   | 234                         | 225,009 | 355,380 | 1,752,871 | 52,428  |
| 5/15/2015  | 234                         | 225,009 | 355,380 | 1,798,829 | TOO WET |
| 5/18/2015  | 234                         | 225,009 | 355,380 | 1,850,843 | 52,428  |
| 5/27/2015  | 234                         | 225,009 | 355,380 | 1,948,878 | 52,428  |
| 6/5/2015   | 234                         | 225,009 | 355,380 | 2,042,210 | 52,428  |
| 6/12/2015  | 234                         | 225,009 | 355,380 | 2,109,464 | 52,428  |
| 6/18/2015  | 234                         | 225,009 | 355,380 | 2,213,894 | 52,428  |
| 7/2/2015   | 234                         | 225,009 | 355,380 | 2,360,222 | 52,428  |
| 7/10/2015  | 234                         | 225,009 | 355,380 | 2,460,286 | 52,428  |
| 7/17/2015  | 234                         | 225,009 | 355,380 | 2,506,522 | 52,428  |
| 7/24/2015  | 234                         | 225,009 | 355,380 | 2,603,835 | 52,428  |
| 7/30/2015  | 234                         | 225,009 | 355,380 | 2,671,954 | 52,428  |
| 8/7/2015   | 234                         | 225,009 | 355,380 | 2,747,135 | 52,428  |
| 8/14/2015  | 234                         | 225,009 | 355,380 | 2,800,454 | 52,428  |
| 8/21/2015  | 234                         | 225,009 | 355,380 | 2,873,189 | 52,428  |
| 8/28/2015  | 234                         | 225,009 | 355,380 | 2,920,149 | 52,428  |
| 9/4/2015   | 234                         | 225,009 | 355,380 | 3,004,651 | 52,428  |
| 9/11/2015  | 234                         | 225,009 | 355,380 | 3,051,879 | TOO WET |
| 10/2/2015  | 234                         | 225,009 | 355,380 | 3,234,965 | 52,428  |
| 10/9/2015  | 234                         | 225,009 | 355,380 | 3,285,924 | TOO WET |
| 10/16/2015 | 234                         | 225,009 | 355,380 | 3,365,388 | 52,428  |
| 10/23/2015 | 234                         | 225,009 | 355,380 | 3,433,302 | TOO WET |
| 10/30/2015 | 234                         | 225,009 | 355,380 | 3,475,438 | 52,428  |
| 11/6/2015  | 234                         | 225,009 | 355,380 | 3,523,788 | 52,428  |
| 11/13/2015 | 234                         | 225,009 | 355,380 | 3,588,538 | 52,428  |
| 11/20/2015 | 234                         | 225,009 | 355,380 | 3,653,585 | 52,428  |
| 11/24/2015 | 234                         | 225,009 | 355,380 | 3,680,466 | 52,428  |
| 12/4/2015  | 234                         | 225,009 | 355,380 | 3,734,831 | 52,428  |
| 12/9/2015  | 234                         | 225,009 | 355,380 | 3,766,558 | 52,428  |
| 12/22/2015 | 234                         | 225,009 | 355,380 | 3,826,653 | 52,428  |
|            |                             |         |         |           |         |
| Totals:    | -                           | -       | -       | 2,895,758 | -       |

# Local Readings - Skid T-9020

| Date       | PSH Readings |        |        |       |         | Tank Reading<br>T-9020 |
|------------|--------------|--------|--------|-------|---------|------------------------|
|            | RW-12R       | RW-13R | RW-14R | RW-20 | RW-22   |                        |
| 12/22/2014 | 5,818        | 79     | 40,541 | 3,314 | 6,359   | 46,068                 |
| 1/8/2015   | 5,819        | 79     | 40,959 | 3,314 | 6,361   | 46,508                 |
| 1/15/2015  | 5,819        | 79     | 41,085 | 3,314 | 6,362   | 46,816                 |
| 1/22/2015  | 5,820        | 80     | 41,521 | 3,314 | 6,362   | 46,957                 |
| 1/29/2015  | 5,823        | 80     | 42,358 | 3,314 | 6,362   | 47,557                 |
| 2/5/2015   | 5,823        | 80     | 42,376 | 3,314 | 6,362   | 47,566                 |
| 2/10/2015  | 5,823        | 80     | 42,376 | 3,314 | 6,362   | 47,573                 |
| 2/19/2015  | 5,823        | 80     | 42,376 | 3,314 | 6,362   | 47,763                 |
| 2/25/2015  | 5,823        | 80     | 42,376 | 3,314 | 6,362   | 47,923                 |
| 3/3/2015   | 5,823        | 80     | 42,376 | 3,314 | 6,362   | 48,013                 |
| 3/11/2015  | 5,823        | 80     | 42,376 | 3,314 | 6,362   | 48,120                 |
| 3/19/2015  | 5,823        | 81     | 42,376 | 3,314 | 6,362   | 48,143                 |
| 3/24/2015  | 5,823        | 81     | 42,376 | 3,314 | 6,362   | 48,150                 |
| 3/31/2015  | 5,823        | 81     | 42,376 | 3,314 | 6,362   | 48,297                 |
| 4/9/2015   | 5,823        | 81     | 42,378 | 3,314 | 6,362   | 48,448                 |
| 4/15/2015  | 5,827        | 82     | 42,378 | 3,315 | TOO WET | 48,448                 |
| 4/22/2015  | 5,827        | 83     | 42,378 | 3,315 | 6,364   | 48,448                 |
| 4/30/2015  | 5,827        | 84     | 42,378 | 3,315 | 6,364   | 48,448                 |
| 5/8/2015   | 5,828        | 776    | 42,378 | 3,315 | 6,364   | 49,231                 |
| 5/15/2015  | 5,828        | 1,780  | 42,378 | 3,315 | TOO WET | 50,481                 |
| 5/18/2015  | 5,829        | 2,188  | 42,378 | 3,315 | 6,373   | 50,968                 |
| 5/27/2015  | 5,829        | 2,757  | 42,378 | 3,315 | 6,373   | 52,144                 |
| 6/5/2015   | 5,829        | 2,762  | 42,774 | 3,315 | TOO WET | 52,808                 |
| 6/12/2015  | 5,829        | 2,763  | 42,774 | 3,315 | 6,373   | 53,242                 |
| 6/18/2015  | 5,829        | 2,763  | 42,774 | 3,315 | TOO WET | 53,754                 |
| 7/2/2015   | 5,829        | 2,763  | 42,774 | 3,315 | 6,373   | 53,754                 |
| 7/10/2015  | 5,829        | 2,767  | 42,774 | 3,315 | TOO WET | 54,087                 |
| 7/17/2015  | 5,829        | 2,768  | 42,779 | 3,315 | 6,374   | 54,554                 |
| 7/24/2015  | 5,829        | 2,770  | 42,779 | 3,315 | 6,374   | 55,128                 |
| 7/30/2015  | 5,829        | 2,770  | 42,779 | 3,315 | TOO WET | 55,128                 |
| 8/7/2015   | 5,829        | 2,770  | 42,779 | 3,315 | 6,374   | 55,461                 |
| 8/14/2015  | 5,829        | 2,770  | 42,780 | 3,315 | 6,374   | 55,505                 |
| 8/21/2015  | 5,829        | 2,770  | 42,780 | 3,315 | TOO WET | 55,505                 |
| 8/28/2015  | 5,829        | 2,771  | 42,780 | 3,315 | 6,374   | 55,506                 |
| 9/4/2015   | 5,829        | 2,773  | 42,780 | 3,315 | 6,377   | 55,506                 |
| 9/11/2015  | 5,829        | 2,773  | 42,780 | 3,315 | TOO WET | 55,506                 |
| 10/2/2015  | 5,829        | 2,773  | 42,780 | 3,315 | 6,377   | 55,506                 |
| 10/9/2015  | 5,829        | 2,774  | 42,780 | 3,315 | TOO WET | 55,708                 |
| 10/16/2015 | 5,829        | 2,774  | 42,780 | 3,315 | 6,377   | 55,708                 |
| 10/23/2015 | 5,829        | 2,774  | 42,780 | 3,315 | TOO WET | 55,708                 |
| 10/30/2015 | 5,829        | 2,774  | 42,780 | 3,317 | 6,377   | 55,708                 |
| 11/6/2015  | 5,829        | 2,774  | 42,780 | 3,317 | 6,377   | 55,708                 |
| 11/13/2015 | 5,829        | 2,774  | 42,780 | 3,317 | 6,377   | 55,708                 |
| 11/20/2015 | 5,829        | 2,774  | 42,780 | 3,317 | 6,377   | 55,708                 |
| 11/24/2015 | 5,829        | 2,774  | 42,780 | 3,317 | 6,377   | 55,708                 |
| 12/4/2015  | 5,829        | 2,774  | 42,780 | 3,336 | 6,377   | 55,708                 |
| 12/9/2015  | 5,829        | 2,775  | 42,781 | 3,336 | 6,377   | 55,708                 |
| 12/22/2015 | 5,829        | 2,775  | 42,781 | 3,336 | 6,377   | 55,834                 |
|            |              |        |        |       |         |                        |
| Totals:    | 11           | 2,696  | 2,240  | 22    | 18      | 9,766                  |

Gauging Data

| Well  | Date:          | 12/22/14 | 1/8/15  | 1/15/15 | 1/22/15 | 1/29/15 | 2/5/15  | 2/10/15 | 2/19/15 | 2/25/15 | 3/3/15  | 3/11/15 | 3/19/15 | 3/24/15 | 3/31/15 |
|-------|----------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| RW-1R | Depth to PSH   | 0        | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|       | Depth to Water | 8.9      | 9.39    | 9.0     | 8.9     | 8.7     | 8.69    | 9.71    | 8.83    | 8.71    | 8.74    | 8.95    | 8.90    | 9.00    | 9.10    |
|       | Product Pump   | Out      | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     |
|       | PSH Thickness  | 0.00     | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|       | TOC Elev       | 3367.03  | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 |
|       | PSH Elev       |          |         |         |         |         |         |         |         |         |         |         |         |         |         |
|       | Water Elev     | 3358.13  | 3357.64 | 3358.03 | 3358.18 | 3358.32 | 3358.34 | 3357.32 | 3358.20 | 3358.32 | 3358.29 | 3358.08 | 3358.13 | 3358.03 | 3357.93 |
| RW-2R | Depth to PSH   | 0        | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|       | Depth to Water | 10.22    | 10.8    | 10.65   | 10      | 9.81    | 9.75    | 9.8     | 9.95    | 9.88    | 9.9     | 10.04   | 10.1    | 10.14   | 10.25   |
|       | Product Pump   | Out      | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     |
|       | PSH Thickness  | 0.00     | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|       | TOC Elev       | 3368.17  | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 |
|       | PSH Elev       |          |         |         |         |         |         |         |         |         |         |         |         |         |         |
|       | Water Elev     | 3357.95  | 3357.37 | 3357.52 | 3358.17 | 3358.36 | 3358.42 | 3358.37 | 3358.22 | 3358.29 | 3358.27 | 3358.13 | 3358.07 | 3358.03 | 3357.92 |
| RW-4R | Depth to PSH   | 0        | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|       | Depth to Water | 12.45    | 12.71   | 12.71   | 12.6    | 12.6    | 12.64   | 12.6    | 12.65   | 12.62   | 12.66   | 12.79   | 12.75   | 12.84   | 12.87   |
|       | Product Pump   | Out      | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     |
|       | PSH Thickness  | 0.00     | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|       | TOC Elev       | 3364.86  | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 |
|       | PSH Elev       |          |         |         |         |         |         |         |         |         |         |         |         |         |         |
|       | Water Elev     | 3352.41  | 3352.15 | 3352.15 | 3352.26 | 3352.26 | 3352.22 | 3352.26 | 3352.21 | 3352.24 | 3352.20 | 3352.07 | 3352.11 | 3352.02 | 3351.99 |
| RW-5R | Depth to PSH   | 14.3     | 14.64   | 15.37   | 14.7    | 14.71   | 14.66   | 14.55   | 14.9    | 14.58   | 14.67   | 14.9    | 15.6    | 15.52   | 15.9    |
|       | Depth to Water | 16       | 17.61   | 17.01   | 16.44   | 16.61   | 16.66   | 16.05   | 16.3    | 16.11   | 16      | 16.5    | 17.01   | 16.9    | 15.91   |
|       | Product Pump   | 14.56    | 14.56   | 15.7    | 15.7    | 15.09   | 15.09   | 15.09   | 15.09   | 14.89   | 14.94   | 15.22   | 15.89   | 15.8    | Out     |
|       | PSH Thickness  | 1.70     | 2.97    | 1.64    | 1.74    | 1.90    | 2.00    | 1.50    | 1.40    | 1.53    | 1.33    | 1.60    | 1.41    | 1.38    | 0.01    |
|       | TOC Elev       | 3368.56  | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 |
|       | PSH Elev       | 3354.26  | 3353.92 | 3353.19 | 3353.86 | 3353.85 | 3353.90 | 3354.01 | 3353.66 | 3353.98 | 3353.89 | 3353.66 | 3352.96 | 3353.04 | 3352.66 |
|       | Water Elev     | 3352.56  | 3350.95 | 3351.55 | 3352.12 | 3351.95 | 3351.90 | 3352.51 | 3352.26 | 3352.45 | 3352.56 | 3352.06 | 3351.55 | 3351.66 | 3352.65 |
| RW-6R | Depth to PSH   | 0        | 13.65   | 13.62   | 13.75   | 13.65   | 13.84   | 13.85   | 13.9    | 13.6    | 13.68   | 13.86   | 13.83   | 0       | 0       |
|       | Depth to Water | 13.2     | 13.67   | 13.78   | 13.95   | 13.82   | 14      | 14      | 14      | 13.77   | 13.89   | 14.1    | 14.05   | 13.95   | 14      |
|       | Product Pump   | 21.73    | 21.73   | 13.66   | 13.66   | 13.69   | 13.69   | 13.69   | 13.69   | 13.69   | 13.69   | 13.9    | 13.88   | 13.88   | 13.88   |
|       | PSH Thickness  | 0.00     | 0.02    | 0.16    | 0.20    | 0.17    | 0.16    | 0.15    | 0.10    | 0.17    | 0.21    | 0.24    | 0.22    | 0.00    | 0.00    |
|       | TOC Elev       | 3368.36  | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 |
|       | PSH Elev       |          | 3354.71 | 3354.74 | 3354.61 | 3354.71 | 3354.52 | 3354.51 | 3354.46 | 3354.76 | 3354.68 | 3354.50 | 3354.53 |         |         |
|       | Water Elev     | 3355.16  | 3354.69 | 3354.58 | 3354.41 | 3354.54 | 3354.36 | 3354.36 | 3354.36 | 3354.59 | 3354.47 | 3354.26 | 3354.31 | 3354.41 | 3354.36 |
| RW-7R | Depth to PSH   | 0        | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|       | Depth to Water | 9.1      | 9.5     | 9.23    | 9.35    | 9.25    | 9.2     | 9.19    | 9.27    | 9.25    | 9.3     | 9.49    | 9.45    | 9.55    | 9.64    |
|       | Product Pump   | Out      | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     |
|       | PSH Thickness  | 0.00     | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|       | TOC Elev       | 3367.09  | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 |
|       | PSH Elev       |          |         |         |         |         |         |         |         |         |         |         |         |         |         |
|       | Water Elev     | 3357.99  | 3357.59 | 3357.86 | 3357.74 | 3357.84 | 3357.89 | 3357.90 | 3357.82 | 3357.84 | 3357.79 | 3357.60 | 3357.64 | 3357.54 | 3357.45 |

Gauging Data

| Well   | Date:          | 12/22/14 | 1/8/15  | 1/15/15 | 1/22/15 | 1/29/15 | 2/5/15  | 2/10/15 | 2/19/15 | 2/25/15 | 3/3/15  | 3/11/15 | 3/19/15 | 3/24/15 | 3/31/15 |
|--------|----------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| RW-8R  | Depth to PSH   | 9.1      | 9.53    | 9.71    | 9.4     | 9.35    | 9       | 8.97    | 0       | 8.98    | 0       | 0       | 0       | 0       | 0       |
|        | Depth to Water | 9.29     | 9.8     | 10.05   | 9.6     | 9.6     | 9.15    | 9.11    | 9.3     | 9       | 9.29    | 9.25    | 9.3     | 9.32    | 9.4     |
|        | Product Pump   | 11.34    | 11.34   | 9.78    | 9.78    | 9.4     | 9.4     | 9.1     | 9.1     | 9.1     | 9.1     | 9.1     | 9.1     | 9.1     | 9.1     |
|        | PSH Thickness  | 0.19     | 0.27    | 0.34    | 0.20    | 0.25    | 0.15    | 0.14    | 0.00    | 0.02    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|        | TOC Elev       | 3368.10  | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 |
|        | PSH Elev       | 3359.00  | 3358.57 | 3358.39 | 3358.70 | 3358.75 | 3359.10 | 3359.13 |         | 3359.12 |         |         |         |         |         |
|        | Water Elev     | 3358.81  | 3358.30 | 3358.05 | 3358.50 | 3358.50 | 3358.95 | 3358.99 | 3358.80 | 3359.10 | 3358.81 | 3358.85 | 3358.80 | 3358.78 | 3358.70 |
| RW-12R | Depth to PSH   | 19.1     | 20.94   | 20.36   | 20.5    | 19.8    | 21.16   | 21.28   | 21.67   | 21.9    | 21.13   | 22.45   | 22.59   | 22.71   | 22.89   |
|        | Depth to Water | 19.17    | 20.95   | 20.37   | 20.55   | 19.82   | 21.24   | 21.33   | 21.7    | 21.95   | 21.14   | 22.5    | 22.62   | 22.72   | 22.91   |
|        | Product Pump   | Out      | Out     | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   |
|        | PSH Thickness  | 0.07     | 0.01    | 0.01    | 0.05    | 0.02    | 0.08    | 0.05    | 0.03    | 0.05    | 0.01    | 0.05    | 0.03    | 0.01    | 0.02    |
|        | TOC Elev       | 3351.54  | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 |
|        | PSH Elev       | 3332.44  | 3330.60 | 3331.18 | 3331.04 | 3331.74 | 3330.38 | 3330.26 | 3329.87 | 3329.64 | 3330.41 | 3329.09 | 3328.95 | 3328.83 | 3328.65 |
|        | Water Elev     | 3332.37  | 3330.59 | 3331.17 | 3330.99 | 3331.72 | 3330.30 | 3330.21 | 3329.84 | 3329.59 | 3330.40 | 3329.04 | 3328.92 | 3328.82 | 3328.63 |
| RW-13R | Depth to PSH   | 18.56    | 19.32   | 19.62   | 18.87   | 20.05   | 20.21   | 20.36   | 20.5    | 20.58   | 20.68   | 20.9    | 20.93   | 21.04   | 21.12   |
|        | Depth to Water | 19.05    | 19.5    | 19.73   | 19.8    | 20.1    | 20.27   | 20.44   | 20.64   | 20.74   | 20.81   | 21.07   | 21.05   | 21.24   | 21.26   |
|        | Product Pump   | Out      | Out     | 19.54   | 19.54   | 19.54   | 19.54   | 19.54   | 19.54   | 19.54   | 19.54   | 19.54   | 19.54   | 21.08   | 21.08   |
|        | PSH Thickness  | 0.49     | 0.18    | 0.11    | 0.93    | 0.05    | 0.06    | 0.08    | 0.14    | 0.16    | 0.13    | 0.17    | 0.12    | 0.20    | 0.14    |
|        | TOC Elev       | 3351.54  | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 |
|        | PSH Elev       | 3332.98  | 3332.22 | 3331.92 | 3332.67 | 3331.49 | 3331.33 | 3331.18 | 3331.04 | 3330.96 | 3330.86 | 3330.64 | 3330.61 | 3330.50 | 3330.42 |
|        | Water Elev     | 3332.49  | 3332.04 | 3331.81 | 3331.74 | 3331.44 | 3331.27 | 3331.10 | 3330.90 | 3330.80 | 3330.73 | 3330.47 | 3330.49 | 3330.30 | 3330.28 |
| RW-14R | Depth to PSH   | 14.91    | 15.4    | 15.7    | 15.85   | 16.14   | 16.23   | 16.4    | 16.55   | 16.62   | 16.71   | 16.94   | 17.02   | 17.15   | 17.15   |
|        | Depth to Water | 14.91    | 16.65   | 16.62   | 16.46   | 16.32   | 16.45   | 16.92   | 16.87   | 16.8    | 16.9    | 17.11   | 17.23   | 17.32   | 17.38   |
|        | Product Pump   | 14.31    | 14.31   | 15.89   | 15.89   | 16.18   | 16.18   | 16.18   | 16.18   | 16.66   | 16.66   | 16.66   | 16.66   | 17.18   | 17.18   |
|        | PSH Thickness  | 0.00     | 1.25    | 0.92    | 0.61    | 0.18    | 0.22    | 0.52    | 0.32    | 0.18    | 0.19    | 0.17    | 0.21    | 0.17    | 0.23    |
|        | TOC Elev       | 3349.37  | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 |
|        | PSH Elev       | 3334.46  | 3333.97 | 3333.67 | 3333.52 | 3333.23 | 3333.14 | 3332.97 | 3332.82 | 3332.75 | 3332.66 | 3332.43 | 3332.35 | 3332.22 | 3332.22 |
|        | Water Elev     | 3334.46  | 3332.72 | 3332.75 | 3332.91 | 3333.05 | 3332.92 | 3332.45 | 3332.50 | 3332.57 | 3332.47 | 3332.26 | 3332.14 | 3332.05 | 3331.99 |
| RW-15  | Depth to PSH   | 13.2     | 13.21   | 13.55   | 13.45   | 13.59   | 13.9    | 13.65   | 13.9    | 13.9    | 13.91   | 14.12   | 14.15   | 14.22   | 14.35   |
|        | Depth to Water | 13.25    | 13.26   | 13.6    | 13.6    | 13.64   | 14.7    | 13.7    | 13.97   | 13.97   | 14      | 14.24   | 14.23   | 14.3    | 14.43   |
|        | Product Pump   | 13.97    | 13.97   | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     |
|        | PSH Thickness  | 0.05     | 0.05    | 0.05    | 0.15    | 0.05    | 0.80    | 0.05    | 0.07    | 0.07    | 0.09    | 0.12    | 0.08    | 0.08    | 0.08    |
|        | TOC Elev       | 3365.30  | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 |
|        | PSH Elev       | 3352.10  | 3352.09 | 3351.75 | 3351.85 | 3351.71 | 3351.40 | 3351.65 | 3351.40 | 3351.40 | 3351.39 | 3351.18 | 3351.15 | 3351.08 | 3350.95 |
|        | Water Elev     | 3352.05  | 3352.04 | 3351.70 | 3351.70 | 3351.66 | 3350.60 | 3351.60 | 3351.33 | 3351.33 | 3351.30 | 3351.06 | 3351.07 | 3351.00 | 3350.87 |
| RW-19  | Depth to PSH   | 20.1     | 20.8    | 0       | 21.05   | 21.1    | 21.34   | 21.29   | 21.55   | 21.19   | 21.43   | 21.87   | 21.9    | 22.12   | 22.19   |
|        | Depth to Water | 21.28    | 21.37   | 20.92   | 22.21   | 21.2    | 22.02   | 21.85   | 22.25   | 21.55   | 22      | 21.87   | 22.09   | 22.67   | 22.67   |
|        | Product Pump   | 25.47    | 25.47   | N/A     | N/A     | N/A     | N/A     | N/A     |         | 21.68   | 21.54   | 21.54   | 21.54   | 22.23   | 22.23   |
|        | PSH Thickness  | 1.18     | 0.57    | 0.00    | 1.16    | 0.10    | 0.68    | 0.56    | 0.70    | 0.36    | 0.57    | 0.00    | 0.19    | 0.55    | 0.48    |
|        | TOC Elev       | 3369.11  | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 |
|        | PSH Elev       | 3349.01  | 3348.31 |         | 3348.06 | 3348.01 | 3347.77 | 3347.82 | 3347.56 | 3347.92 | 3347.68 | 3347.24 | 3347.21 | 3346.99 | 3346.92 |
|        | Water Elev     | 3347.83  | 3347.74 | 3348.19 | 3346.90 | 3347.91 | 3347.09 | 3347.26 | 3346.86 | 3347.56 | 3347.11 | 3347.24 | 3347.02 | 3346.44 | 3346.44 |

Gauging Data

| Well  | Date:          | 12/22/14 | 1/8/15  | 1/15/15 | 1/22/15 | 1/29/15 | 2/5/15  | 2/10/15 | 2/19/15 | 2/25/15 | 3/3/15  | 3/11/15 | 3/19/15 | 3/24/15 | 3/31/15 |
|-------|----------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| RW-20 | Depth to PSH   | 19.75    | 19.45   | 19.78   | 19.77   | 19.78   | 19.77   | 19.8    | 19.75   | 19.71   | 19.8    | 19.75   | 19.79   | 19.75   | 19.79   |
|       | Depth to Water | 19.95    | 19.5    | 19.94   | 20      | 19.95   | 20      | 19.95   | 19.9    | 19.89   | 19.99   | 19.95   | 19.98   | 19.95   | 19.99   |
|       | Product Pump   | Out      | Out     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     |
|       | PSH Thickness  | 0.20     | 0.05    | 0.16    | 0.23    | 0.17    | 0.23    | 0.15    | 0.15    | 0.18    | 0.19    | 0.20    | 0.19    | 0.20    | 0.20    |
|       | TOC Elev       | 3348.44  | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 |
|       | PSH Elev       | 3328.69  | 3328.99 | 3328.66 | 3328.67 | 3328.66 | 3328.67 | 3328.64 | 3328.69 | 3328.73 | 3328.64 | 3328.69 | 3328.65 | 3328.69 | 3328.65 |
|       | Water Elev     | 3328.49  | 3328.94 | 3328.50 | 3328.44 | 3328.49 | 3328.44 | 3328.49 | 3328.54 | 3328.55 | 3328.45 | 3328.49 | 3328.46 | 3328.49 | 3328.45 |
| RW-22 | Depth to PSH   | 17.7     | 0       | 18.79   | 18.93   | 0       | 0       | 0       | 0       | 19.94   | 0       | 20.47   | 20.88   | 0       | 21.03   |
|       | Depth to Water | 17.74    | 18.35   | 18.8    | 18.94   | 19.1    | 19.4    | 19.46   | 19.79   | 19.94   | 20.04   | 20.48   | 20.89   | 20.86   | 21.05   |
|       | Product Pump   | Out      | Out     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     |
|       | PSH Thickness  | 0.04     | 0.00    | 0.01    | 0.01    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.01    | 0.01    | 0.00    | 0.02    |
|       | TOC Elev       | 3349.21  | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 |
|       | PSH Elev       | 3331.51  |         | 3330.42 | 3330.28 |         |         |         |         | 3329.27 |         | 3328.74 | 3328.33 |         | 3328.18 |
|       | Water Elev     | 3331.47  | 3330.86 | 3330.41 | 3330.27 | 3330.11 | 3329.81 | 3329.75 | 3329.42 | 3329.27 | 3329.17 | 3328.73 | 3328.32 | 3328.35 | 3328.16 |

Gauging Data

| Well  | Date:          | 4/9/15  | 4/15/15 | 4/22/15 | 4/30/15 | 5/8/15  | 5/15/15 | 5/18/15 | 5/27/15 | 6/5/15  | 6/12/15 | 6/18/15 | 7/2/15  | 7/10/15 | 7/17/15 |
|-------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| RW-1R | Depth to PSH   | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|       | Depth to Water | 9.31    | 8.78    | 9.10    | 9.35    | 9.04    | 9.15    | 9.25    | 9.20    | 8.90    | 8.96    | 8.78    | 9.10    | 8.85    | 9.00    |
|       | Product Pump   | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     |
|       | PSH Thickness  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|       | TOC Elev       | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 |
|       | PSH Elev       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|       | Water Elev     | 3357.72 | 3358.25 | 3357.93 | 3357.68 | 3357.99 | 3357.88 | 3357.78 | 3357.83 | 3358.13 | 3358.07 | 3358.25 | 3357.93 | 3358.18 | 3358.03 |
| RW-2R | Depth to PSH   | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|       | Depth to Water | 10.3    | 10.05   | 10.15   | 10.45   | 10.2    | 10.33   | 10.3    | 10.36   | 10.05   | 10.1    | 10.15   | 10.28   | 10.05   | 10.04   |
|       | Product Pump   | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     |
|       | PSH Thickness  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|       | TOC Elev       | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 |
|       | PSH Elev       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|       | Water Elev     | 3357.87 | 3358.12 | 3358.02 | 3357.72 | 3357.97 | 3357.84 | 3357.87 | 3357.81 | 3358.12 | 3358.07 | 3358.02 | 3357.89 | 3358.12 | 3358.13 |
| RW-4R | Depth to PSH   | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|       | Depth to Water | 13.02   | 12.91   | 12.96   | 13.05   | 12.95   | 12.93   | 12.88   | 12.75   | 12.6    | 12.42   | 12.4    | 12.63   | 12.52   | 12.57   |
|       | Product Pump   | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     |
|       | PSH Thickness  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|       | TOC Elev       | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 |
|       | PSH Elev       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|       | Water Elev     | 3351.84 | 3351.95 | 3351.90 | 3351.81 | 3351.91 | 3351.93 | 3351.98 | 3352.11 | 3352.26 | 3352.44 | 3352.46 | 3352.23 | 3352.34 | 3352.29 |
| RW-5R | Depth to PSH   | 15.9    | 15.75   | 0       | 15.35   | 15.3    | 15.34   | 15.35   | 15.19   | 15.09   | 14.85   | 14.89   | 14.94   | 14.89   | 14.9    |
|       | Depth to Water | 15.92   | 15.77   | 15.65   | 15.4    | 15.4    | 15.36   | 15.4    | 15.24   | 15.1    | 14.89   | 14.92   | 15.02   | 14.9    | 14.97   |
|       | Product Pump   | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     |
|       | PSH Thickness  | 0.02    | 0.02    | 0.00    | 0.05    | 0.10    | 0.02    | 0.05    | 0.05    | 0.01    | 0.04    | 0.03    | 0.08    | 0.01    | 0.07    |
|       | TOC Elev       | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 |
|       | PSH Elev       | 3352.66 | 3352.81 |         | 3353.21 | 3353.26 | 3353.22 | 3353.21 | 3353.37 | 3353.47 | 3353.71 | 3353.67 | 3353.62 | 3353.67 | 3353.66 |
|       | Water Elev     | 3352.64 | 3352.79 | 3352.91 | 3353.16 | 3353.16 | 3353.20 | 3353.16 | 3353.32 | 3353.46 | 3353.67 | 3353.64 | 3353.54 | 3353.66 | 3353.59 |
| RW-6R | Depth to PSH   | 14.2    | 0       | 14.14   | 0       | 14      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|       | Depth to Water | 14.25   | 14.19   | 14.14   | 14.21   | 14.2    | 14.05   | 14.08   | 13.93   | 13.85   | 13.79   | 13.65   | 13.79   | 13.77   | 13.67   |
|       | Product Pump   | 13.88   | 13.88   | 13.88   | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     |
|       | PSH Thickness  | 0.05    | 0.00    | 0.00    | 0.00    | 0.20    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|       | TOC Elev       | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 |
|       | PSH Elev       | 3354.16 |         | 3354.22 |         | 3354.36 |         |         |         |         |         |         |         |         |         |
|       | Water Elev     | 3354.11 | 3354.17 | 3354.22 | 3354.15 | 3354.16 | 3354.31 | 3354.28 | 3354.43 | 3354.51 | 3354.57 | 3354.71 | 3354.57 | 3354.59 | 3354.69 |
| RW-7R | Depth to PSH   | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|       | Depth to Water | 9.85    | 9.35    | 9.6     | 9.81    | 9.54    | 9.46    | 9.75    | 9.8     | 9.4     | 9.5     | 9.37    | 9.83    | 9.81    | 9.5     |
|       | Product Pump   | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     |
|       | PSH Thickness  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|       | TOC Elev       | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 |
|       | PSH Elev       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|       | Water Elev     | 3357.24 | 3357.74 | 3357.49 | 3357.28 | 3357.55 | 3357.63 | 3357.34 | 3357.29 | 3357.69 | 3357.59 | 3357.72 | 3357.26 | 3357.28 | 3357.59 |

Gauging Data

| Well   | Date:          | 4/9/15  | 4/15/15 | 4/22/15 | 4/30/15 | 5/8/15  | 5/15/15 | 5/18/15 | 5/27/15 | 6/5/15  | 6/12/15 | 6/18/15 | 7/2/15  | 7/10/15 | 7/17/15 |
|--------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| RW-8R  | Depth to PSH   | 0       | 9.25    | 9.4     | 9.62    | 0       | 9.49    | 9.56    | 9.56    | 0       | 0       | 0       | 9.65    | 0       | 0       |
|        | Depth to Water | 9.6     | 9.25    | 9.41    | 9.63    | 9.38    | 9.51    | 9.57    | 9.8     | 9.58    | 9.35    | 9.47    | 9.66    | 9.61    | 9.67    |
|        | Product Pump   | 9.1     | 9.1     | 9.1     | 9.1     | 9.1     | 9.5     | 9.5     | 9.5     | 9.5     | 9.5     | 9.5     | 9.5     | 9.5     | 9.5     |
|        | PSH Thickness  | 0.00    | 0.00    | 0.01    | 0.01    | 0.00    | 0.02    | 0.01    | 0.24    | 0.00    | 0.00    | 0.00    | 0.01    | 0.00    | 0.00    |
|        | TOC Elev       | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 |
|        | PSH Elev       |         | 3358.85 | 3358.70 | 3358.48 |         | 3358.61 | 3358.54 | 3358.54 |         |         |         | 3358.45 |         |         |
|        | Water Elev     | 3358.50 | 3358.85 | 3358.69 | 3358.47 | 3358.72 | 3358.59 | 3358.53 | 3358.30 | 3358.52 | 3358.75 | 3358.63 | 3358.44 | 3358.49 | 3358.43 |
| RW-12R | Depth to PSH   | 23.03   | 22.8    | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|        | Depth to Water | 23.05   | 22.83   | 20.78   | 20.4    | 20.79   | 20.51   | 19.22   | 19.15   | 18.64   | 18.38   | 17.25   | 17.56   | 17.9    | 18.14   |
|        | Product Pump   | 23.04   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   |
|        | PSH Thickness  | 0.02    | 0.03    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|        | TOC Elev       | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 |
|        | PSH Elev       | 3328.51 | 3328.74 |         |         |         |         |         |         |         |         |         |         |         |         |
|        | Water Elev     | 3328.49 | 3328.71 | 3330.76 | 3331.14 | 3330.75 | 3331.03 | 3332.32 | 3332.39 | 3332.90 | 3333.16 | 3334.29 | 3333.98 | 3333.64 | 3333.40 |
| RW-13R | Depth to PSH   | 21.22   | 21.11   | 19.9    | 19.6    | 19.85   | 19.74   | 18.47   | 19.42   | 18.1    | 17.87   | 17.23   | 17      | 17.56   | 17.8    |
|        | Depth to Water | 21.35   | 21.2    | 19.96   | 19.65   | 20      | 19.85   | 18.88   | 19.85   | 18.5    | 18.3    | 17.57   | 17.36   | 17.97   | 18.15   |
|        | Product Pump   | 21.2    | 21.13   | 21.13   | 19.62   | 19.88   | 19.77   | 19.77   | 19.77   | 19.77   | 17.96   | 17.96   | 17.96   | 17.96   | 17.87   |
|        | PSH Thickness  | 0.13    | 0.09    | 0.06    | 0.05    | 0.15    | 0.11    | 0.41    | 0.43    | 0.40    | 0.43    | 0.34    | 0.36    | 0.41    | 0.35    |
|        | TOC Elev       | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 |
|        | PSH Elev       | 3330.32 | 3330.43 | 3331.64 | 3331.94 | 3331.69 | 3331.80 | 3333.07 | 3332.12 | 3333.44 | 3333.67 | 3334.31 | 3334.54 | 3333.98 | 3333.74 |
|        | Water Elev     | 3330.19 | 3330.34 | 3331.58 | 3331.89 | 3331.54 | 3331.69 | 3332.66 | 3331.69 | 3333.04 | 3333.24 | 3333.97 | 3334.18 | 3333.57 | 3333.39 |
| RW-14R | Depth to PSH   | 17.25   | 16.95   | 15.98   | 16.07   | 16.19   | 15.96   | 15.59   | 15.75   | 15.73   | 15.7    | 15.48   | 15.59   | 15.95   | 17.05   |
|        | Depth to Water | 17.46   | 17.12   | 16.15   | 16.23   | 16.38   | 16.15   | 15.72   | 15.95   | 15.9    | 15.91   | 15.54   | 15.8    | 16.1    | 17.42   |
|        | Product Pump   | 17.29   | 16.99   | 16.99   | 16.11   | 16.23   | 16      | 16      | 16      | 16      | 15.75   | 15.75   | 15.75   | 15.75   | 17.13   |
|        | PSH Thickness  | 0.21    | 0.17    | 0.17    | 0.16    | 0.19    | 0.19    | 0.13    | 0.20    | 0.17    | 0.21    | 0.06    | 0.21    | 0.15    | 0.37    |
|        | TOC Elev       | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 |
|        | PSH Elev       | 3332.12 | 3332.42 | 3333.39 | 3333.30 | 3333.18 | 3333.41 | 3333.78 | 3333.62 | 3333.64 | 3333.67 | 3333.89 | 3333.78 | 3333.42 | 3332.32 |
|        | Water Elev     | 3331.91 | 3332.25 | 3333.22 | 3333.14 | 3332.99 | 3333.22 | 3333.65 | 3333.42 | 3333.47 | 3333.46 | 3333.83 | 3333.57 | 3333.27 | 3331.95 |
| RW-15  | Depth to PSH   | 14.53   | 14.5    | 14.51   | 14.65   | 14.5    | 14.51   | 14.44   | 18.35   | 14.12   | 14.1    | 14      | 13.89   | 13.89   | 13.74   |
|        | Depth to Water | 14.6    | 14.6    | 14.67   | 14.75   | 14.67   | 14.6    | 14.53   | 14.43   | 14.19   | 14.2    | 14.08   | 13.93   | 13.9    | 13.8    |
|        | Product Pump   | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     |
|        | PSH Thickness  | 0.07    | 0.10    | 0.16    | 0.10    | 0.17    | 0.09    | 0.09    | -3.92   | 0.07    | 0.10    | 0.08    | 0.04    | 0.01    | 0.06    |
|        | TOC Elev       | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 |
|        | PSH Elev       | 3350.77 | 3350.80 | 3350.79 | 3350.65 | 3350.80 | 3350.79 | 3350.86 | 3346.95 | 3351.18 | 3351.20 | 3351.30 | 3351.41 | 3351.41 | 3351.56 |
|        | Water Elev     | 3350.70 | 3350.70 | 3350.63 | 3350.55 | 3350.63 | 3350.70 | 3350.77 | 3350.87 | 3351.11 | 3351.10 | 3351.22 | 3351.37 | 3351.40 | 3351.50 |
| RW-19  | Depth to PSH   | 22.2    | 22.25   | 22.41   | 22.58   | 21.57   | 23.94   | 22.47   | 22.32   | 22.19   | 21.94   | 21.8    | 21.7    | 21.65   | 21.45   |
|        | Depth to Water | 22.6    | 22.74   | 22.85   | 23      | 21.97   | 24.38   | 22.95   | 22.6    | 22.49   | 22.28   | 22.16   | 22.2    | 22.05   | 21.79   |
|        | Product Pump   | OUT     | OUT     | OUT     | OUT     | 21.65   | 24.03   | 24.03   | 24.03   | 24.03   | 22.01   | 22.01   | 22.01   | 22.01   | 21.52   |
|        | PSH Thickness  | 0.40    | 0.49    | 0.44    | 0.42    | 0.40    | 0.44    | 0.48    | 0.28    | 0.30    | 0.34    | 0.36    | 0.50    | 0.40    | 0.34    |
|        | TOC Elev       | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 |
|        | PSH Elev       | 3346.91 | 3346.86 | 3346.70 | 3346.53 | 3347.54 | 3345.17 | 3346.64 | 3346.79 | 3346.92 | 3347.17 | 3347.31 | 3347.41 | 3347.46 | 3347.66 |
|        | Water Elev     | 3346.51 | 3346.37 | 3346.26 | 3346.11 | 3347.14 | 3344.73 | 3346.16 | 3346.51 | 3346.62 | 3346.83 | 3346.95 | 3346.91 | 3347.06 | 3347.32 |

Gauging Data

| Well  | Date:          | 4/9/15  | 4/15/15 | 4/22/15 | 4/30/15 | 5/8/15  | 5/15/15 | 5/18/15 | 5/27/15 | 6/5/15  | 6/12/15 | 6/18/15 | 7/2/15  | 7/10/15 | 7/17/15 |
|-------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| RW-20 | Depth to PSH   | 19.75   | 19.75   | 19.77   | 19.72   | 19.75   | 19.78   | 19.7    | 19.74   | 19.75   | 19.74   | 19.7    | 19.15   | 19.7    | 19.74   |
|       | Depth to Water | 19.95   | 20.05   | 19.97   | 20      | 20      | 20      | 20      | 19.98   | 20      | 20      | 19.9    | 19.35   | 19.95   | 20.19   |
|       | Product Pump   | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     |
|       | PSH Thickness  | 0.20    | 0.30    | 0.20    | 0.28    | 0.25    | 0.22    | 0.30    | 0.24    | 0.25    | 0.26    | 0.20    | 0.20    | 0.25    | 0.45    |
|       | TOC Elev       | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 |
|       | PSH Elev       | 3328.69 | 3328.69 | 3328.67 | 3328.72 | 3328.69 | 3328.66 | 3328.74 | 3328.70 | 3328.69 | 3328.70 | 3328.74 | 3329.29 | 3328.74 | 3328.70 |
|       | Water Elev     | 3328.49 | 3328.39 | 3328.47 | 3328.44 | 3328.44 | 3328.44 | 3328.44 | 3328.46 | 3328.44 | 3328.44 | 3328.54 | 3329.09 | 3328.49 | 3328.25 |
| RW-22 | Depth to PSH   | 21.18   | Too Wet | 18.16   | 0       | 0       | Too Wet | 0       | 0       | Too Wet | 0       | Too Wet | 15.64   | Too Wet | 0       |
|       | Depth to Water | 21.2    | Too Wet | 18.16   | 18.4    | 18.61   | Too Wet | 16.78   | 17.19   | Too Wet | 16.64   | Too Wet | 15.65   | Too Wet | 16.82   |
|       | Product Pump   | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     |
|       | PSH Thickness  | 0.02    | #VALUE! | 0.00    | 0.00    | 0.00    | #VALUE! | 0.00    | 0.00    | #VALUE! | 0.00    | #VALUE! | 0.01    | #VALUE! | 0.00    |
|       | TOC Elev       | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 |
|       | PSH Elev       | 3328.03 | #VALUE! | 3331.05 |         |         | #VALUE! |         |         | #VALUE! |         | #VALUE! | 3333.57 | #VALUE! |         |
|       | Water Elev     | 3328.01 | #VALUE! | 3331.05 | 3330.81 | 3330.60 | #VALUE! | 3332.43 | 3332.02 | #VALUE! | 3332.57 | #VALUE! | 3333.56 | #VALUE! | 3332.39 |

Gauging Data

| Well  | Date:          | 7/24/15 | 7/30/15 | 8/7/15  | 8/14/15 | 8/21/15 | 8/28/15 | 9/4/15  | 9/11/15 | 10/2/15 | 10/9/15 | 10/16/15 | 10/23/15 | 10/30/15 | 11/6/15 |
|-------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|---------|
| RW-1R | Depth to PSH   | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0        | 0        | 0        | 0       |
|       | Depth to Water | 9.25    | 9.00    | 9.07    | 9.32    | 9.05    | 9.15    | 9.25    | 9.24    | 9.48    | 7.77    | 8.00     | 6.94     | 7.39     | 7.55    |
|       | Product Pump   | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out      | Out      | Out      | Out     |
|       | PSH Thickness  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00     | 0.00     | 0.00     | 0.00    |
|       | TOC Elev       | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03 | 3367.03  | 3367.03  | 3367.03  | 3367.03 |
|       | PSH Elev       |         |         |         |         |         |         |         |         |         |         |          |          |          |         |
|       | Water Elev     | 3357.78 | 3358.03 | 3357.96 | 3357.71 | 3357.98 | 3357.88 | 3357.78 | 3357.79 | 3357.55 | 3359.26 | 3359.03  | 3360.09  | 3359.64  | 3359.48 |
| RW-2R | Depth to PSH   | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0        | 0        | 0        | 0       |
|       | Depth to Water | 10.3    | 10.19   | 10.25   | 10.42   | 10.5    | 10.32   | 10.4    | 10.45   | 10.6    | 9.69    | 9.34     | 9.15     | 8.82     | 8.9     |
|       | Product Pump   | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out      | Out      | Out      | Out     |
|       | PSH Thickness  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00     | 0.00     | 0.00     | 0.00    |
|       | TOC Elev       | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17 | 3368.17  | 3368.17  | 3368.17  | 3368.17 |
|       | PSH Elev       |         |         |         |         |         |         |         |         |         |         |          |          |          |         |
|       | Water Elev     | 3357.87 | 3357.98 | 3357.92 | 3357.75 | 3357.67 | 3357.85 | 3357.77 | 3357.72 | 3357.57 | 3358.48 | 3358.83  | 3359.02  | 3359.35  | 3359.27 |
| RW-4R | Depth to PSH   | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0        | 0        | 0        | 0       |
|       | Depth to Water | 12.57   | 12.79   | 12.45   | 12.52   | 12.45   | 12.36   | 12.33   | 12.32   | 12.39   | 11.97   | 11.5     | 11.43    | 11.14    | 11.12   |
|       | Product Pump   | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out      | Out      | Out      | Out     |
|       | PSH Thickness  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00     | 0.00     | 0.00     | 0.00    |
|       | TOC Elev       | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86 | 3364.86  | 3364.86  | 3364.86  | 3364.86 |
|       | PSH Elev       |         |         |         |         |         |         |         |         |         |         |          |          |          |         |
|       | Water Elev     | 3352.29 | 3352.07 | 3352.41 | 3352.34 | 3352.41 | 3352.50 | 3352.53 | 3352.54 | 3352.47 | 3352.89 | 3353.36  | 3353.43  | 3353.72  | 3353.74 |
| RW-5R | Depth to PSH   | 14.91   | 14.89   | 14.78   | 14.8    | 14.7    | 14.63   | 14.59   | 14.42   | 14.63   | 14.15   | 13.8     | 14.79    | 13.38    | 13.36   |
|       | Depth to Water | 14.95   | 14.92   | 14.8    | 14.84   | 14.76   | 14.85   | 14.61   | 14.45   | 14.73   | 14.19   | 13.89    | 14.85    | 13.42    | 13.44   |
|       | Product Pump   | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out      | Out      | Out      | Out     |
|       | PSH Thickness  | 0.04    | 0.03    | 0.02    | 0.04    | 0.06    | 0.22    | 0.02    | 0.03    | 0.10    | 0.04    | 0.09     | 0.06     | 0.04     | 0.08    |
|       | TOC Elev       | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56 | 3368.56  | 3368.56  | 3368.56  | 3368.56 |
|       | PSH Elev       | 3353.65 | 3353.67 | 3353.78 | 3353.76 | 3353.86 | 3353.93 | 3353.97 | 3354.14 | 3353.93 | 3354.41 | 3354.76  | 3353.77  | 3355.18  | 3355.20 |
|       | Water Elev     | 3353.61 | 3353.64 | 3353.76 | 3353.72 | 3353.80 | 3353.71 | 3353.95 | 3354.11 | 3353.83 | 3354.37 | 3354.67  | 3353.71  | 3355.14  | 3355.12 |
| RW-6R | Depth to PSH   | 0       | 0       | 0       | 0       | 0       | 0       | 13.5    | 13.5    | 13.79   | 0       | 0        | 0        | 0        | 0       |
|       | Depth to Water | 13.69   | 13.69   | 13.57   | 13.65   | 13.55   | 13.59   | 13.5    | 13.5    | 13.8    | 13.33   | 12.92    | 12.79    | 12.55    | 12.49   |
|       | Product Pump   | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out      | Out      | Out      | Out     |
|       | PSH Thickness  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.01    | 0.00    | 0.00     | 0.00     | 0.00     | 0.00    |
|       | TOC Elev       | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36 | 3368.36  | 3368.36  | 3368.36  | 3368.36 |
|       | PSH Elev       |         |         |         |         |         |         | 3354.86 | 3354.86 | 3354.57 |         |          |          |          |         |
|       | Water Elev     | 3354.67 | 3354.67 | 3354.79 | 3354.71 | 3354.81 | 3354.77 | 3354.86 | 3354.86 | 3354.56 | 3355.03 | 3355.44  | 3355.57  | 3355.81  | 3355.87 |
| RW-7R | Depth to PSH   | 10.25   | 0       | 0       | 10.2    | 9.57    | 0       | 0       | 0       | 10.18   | 0       | 0        | 0        | 0        | 0       |
|       | Depth to Water | 10.35   | 9.9     | 10.04   | 10.23   | 9.58    | 9.78    | 9.96    | 9.87    | 10.18   | 8.45    | 8.23     | 7.91     | 7.76     | 7.98    |
|       | Product Pump   | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out     | Out      | Out      | Out      | Out     |
|       | PSH Thickness  | 0.10    | 0.00    | 0.00    | 0.03    | 0.01    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00     | 0.00     | 0.00     | 0.00    |
|       | TOC Elev       | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09 | 3367.09  | 3367.09  | 3367.09  | 3367.09 |
|       | PSH Elev       | 3356.84 |         |         | 3356.89 | 3357.52 |         |         |         | 3356.91 |         |          |          |          |         |
|       | Water Elev     | 3356.74 | 3357.19 | 3357.05 | 3356.86 | 3357.51 | 3357.31 | 3357.13 | 3357.22 | 3356.91 | 3358.64 | 3358.86  | 3359.18  | 3359.33  | 3359.11 |

Gauging Data

| Well   | Date:          | 7/24/15 | 7/30/15 | 8/7/15  | 8/14/15 | 8/21/15 | 8/28/15 | 9/4/15  | 9/11/15 | 10/2/15 | 10/9/15 | 10/16/15 | 10/23/15 | 10/30/15 | 11/6/15 |
|--------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|---------|
| RW-8R  | Depth to PSH   | 9.85    | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 9.94    | 0       | 0        | 0        | 0        | 0       |
|        | Depth to Water | 9.9     | 9.77    | 9.75    | 9.94    | 9.88    | 9.6     | 9.65    | 9.75    | 9.95    | 8.85    | 8.35     | 8.22     | 7.82     | 8.03    |
|        | Product Pump   | 9.5     | 9.5     | 9.5     | 9.5     | 9.5     | 9.5     | 9.5     | 9.5     | 9.5     | 9.5     | 9.5      | 9.5      | 9.5      | 9.5     |
|        | PSH Thickness  | 0.05    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.01    | 0.00    | 0.00     | 0.00     | 0.00     | 0.00    |
|        | TOC Elev       | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10 | 3368.10  | 3368.10  | 3368.10  | 3368.10 |
|        | PSH Elev       | 3358.25 |         |         |         |         |         |         |         | 3358.16 |         |          |          |          |         |
|        | Water Elev     | 3358.20 | 3358.33 | 3358.35 | 3358.16 | 3358.22 | 3358.50 | 3358.45 | 3358.35 | 3358.15 | 3359.25 | 3359.75  | 3359.88  | 3360.28  | 3360.07 |
| RW-12R | Depth to PSH   | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0        | 0        | 0        | 0       |
|        | Depth to Water | 18.59   | 19.1    | 18.98   | 19.35   | 18.74   | 19      | 18.54   | 19.08   | 19.47   | 19.02   | 18.59    | 18.62    | 19.05    | 19.53   |
|        | Product Pump   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36   | 20.36    | 20.36    | 20.36    | 20.36   |
|        | PSH Thickness  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00     | 0.00     | 0.00     | 0.00    |
|        | TOC Elev       | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54  | 3351.54  | 3351.54  | 3351.54 |
|        | PSH Elev       |         |         |         |         |         |         |         |         |         |         |          |          |          |         |
|        | Water Elev     | 3332.95 | 3332.44 | 3332.56 | 3332.19 | 3332.80 | 3332.54 | 3333.00 | 3332.46 | 3332.07 | 3332.52 | 3332.95  | 3332.92  | 3332.49  | 3332.01 |
| RW-13R | Depth to PSH   | 17.8    | 18.69   | 18.59   | 18.95   | 18.43   | 18.59   | 18.5    | 18.81   | 18.86   | 18.52   | 18.01    | 18.29    | 18.4     | 18.94   |
|        | Depth to Water | 18.15   | 18.95   | 18.95   | 19.18   | 18.85   | 18.59   | 18.57   | 18.92   | 19      | 18.88   | 18.55    | 18.7     | 18.69    | 19.05   |
|        | Product Pump   | 17.87   | 17.87   | 17.87   | 17.87   | 17.87   | 17.87   | 17.87   | 17.87   | 17.87   | 17.87   | 17.87    | 17.87    | 17.87    | 17.87   |
|        | PSH Thickness  | 0.35    | 0.26    | 0.36    | 0.23    | 0.42    | 0.00    | 0.07    | 0.11    | 0.14    | 0.36    | 0.54     | 0.41     | 0.29     | 0.11    |
|        | TOC Elev       | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54 | 3351.54  | 3351.54  | 3351.54  | 3351.54 |
|        | PSH Elev       | 3333.74 | 3332.85 | 3332.95 | 3332.59 | 3333.11 | 3332.95 | 3333.04 | 3332.73 | 3332.68 | 3333.02 | 3333.53  | 3333.25  | 3333.14  | 3332.60 |
|        | Water Elev     | 3333.39 | 3332.59 | 3332.59 | 3332.36 | 3332.69 | 3332.95 | 3332.97 | 3332.62 | 3332.54 | 3332.66 | 3332.99  | 3332.84  | 3332.85  | 3332.49 |
| RW-14R | Depth to PSH   | 16.4    | 16.78   | 16.87   | 17.02   | 17.09   | 17.2    | 17.03   | 17.24   | 17.34   | 17.21   | 16.79    | 16.5     | 16.49    | 16.5    |
|        | Depth to Water | 16.55   | 16.98   | 17.03   | 17.2    | 17.24   | 17.43   | 17.22   | 17.4    | 17.51   | 17.35   | 16.93    | 16.76    | 16.59    | 16.64   |
|        | Product Pump   | 17.13   | 17.13   | 17.13   | 17.13   | 17.13   | 17.13   | 17.13   | 17.13   | 17.13   | 17.13   | 17.13    | 17.13    | 17.13    | 17.13   |
|        | PSH Thickness  | 0.15    | 0.20    | 0.16    | 0.18    | 0.15    | 0.23    | 0.19    | 0.16    | 0.17    | 0.14    | 0.14     | 0.26     | 0.10     | 0.14    |
|        | TOC Elev       | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37 | 3349.37  | 3349.37  | 3349.37  | 3349.37 |
|        | PSH Elev       | 3332.97 | 3332.59 | 3332.50 | 3332.35 | 3332.28 | 3332.17 | 3332.34 | 3332.13 | 3332.03 | 3332.16 | 3332.58  | 3332.87  | 3332.88  | 3332.87 |
|        | Water Elev     | 3332.82 | 3332.39 | 3332.34 | 3332.17 | 3332.13 | 3331.94 | 3332.15 | 3331.97 | 3331.86 | 3332.02 | 3332.44  | 3332.61  | 3332.78  | 3332.73 |
| RW-15  | Depth to PSH   | 13.74   | 13.76   | 13.6    | 13.63   | 12.84   | 13.75   | 13.8    | 13.63   | 13.45   | 13.41   | 13.04    | 0        | 0        | 0       |
|        | Depth to Water | 13.77   | 13.81   | 13.65   | 13.66   | 12.85   | 13.77   | 13.85   | 13.65   | 13.5    | 13.44   | 13.07    | 12.77    | 12.68    | 12.65   |
|        | Product Pump   | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A      | N/A      | N/A      | N/A     |
|        | PSH Thickness  | 0.03    | 0.05    | 0.05    | 0.03    | 0.01    | 0.02    | 0.05    | 0.02    | 0.05    | 0.03    | 0.03     | 0.00     | 0.00     | 0.00    |
|        | TOC Elev       | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30 | 3365.30  | 3365.30  | 3365.30  | 3365.30 |
|        | PSH Elev       | 3351.56 | 3351.54 | 3351.70 | 3351.67 | 3352.46 | 3351.55 | 3351.50 | 3351.67 | 3351.85 | 3351.89 | 3352.26  |          |          |         |
|        | Water Elev     | 3351.53 | 3351.49 | 3351.65 | 3351.64 | 3352.45 | 3351.53 | 3351.45 | 3351.65 | 3351.80 | 3351.86 | 3352.23  | 3352.53  | 3352.62  | 3352.65 |
| RW-19  | Depth to PSH   | 21.44   | 21.48   | 21.27   | 21.33   | 21.17   | 21.17   | 21.14   | 21.19   | 21.31   | 21.3    | 21.1     | 21.17    | 20.93    | 20.94   |
|        | Depth to Water | 21.85   | 21.49   | 21.62   | 21.65   | 21.23   | 21.58   | 21.5    | 21.48   | 21.58   | 21.64   | 21.45    | 21.34    | 21.2     | 21.22   |
|        | Product Pump   | 21.52   | 21.52   | 21.52   | 21.52   | 21.52   | 21.52   | 21.52   | 21.52   | 21.52   | 21.52   | 21.52    | 21.52    | 21.52    | 21.52   |
|        | PSH Thickness  | 0.41    | 0.01    | 0.35    | 0.32    | 0.06    | 0.41    | 0.36    | 0.29    | 0.27    | 0.34    | 0.35     | 0.17     | 0.27     | 0.28    |
|        | TOC Elev       | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11 | 3369.11  | 3369.11  | 3369.11  | 3369.11 |
|        | PSH Elev       | 3347.67 | 3347.63 | 3347.84 | 3347.78 | 3347.94 | 3347.94 | 3347.97 | 3347.92 | 3347.80 | 3347.81 | 3348.01  | 3347.94  | 3348.18  | 3348.17 |
|        | Water Elev     | 3347.26 | 3347.62 | 3347.49 | 3347.46 | 3347.88 | 3347.53 | 3347.61 | 3347.63 | 3347.53 | 3347.47 | 3347.66  | 3347.77  | 3347.91  | 3347.89 |

Gauging Data

| Well  | Date:          | 7/24/15 | 7/30/15 | 8/7/15  | 8/14/15 | 8/21/15 | 8/28/15 | 9/4/15  | 9/11/15 | 10/2/15 | 10/9/15 | 10/16/15 | 10/23/15 | 10/30/15 | 11/6/15 |
|-------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|---------|
| RW-20 | Depth to PSH   | 19.7    | 19.73   | 19.72   | 19.73   | 19.72   | 19.75   | 19.8    | 19.73   | 19.75   | 19.8    | 19.79    | 19.7     | 14.29    | 19.78   |
|       | Depth to Water | 19.94   | 19.98   | 20.09   | 20.03   | 19.97   | 20.05   | 20.06   | 19.84   | 20.03   | 20      | 20.07    | 20.08    | 17.2     | 19.94   |
|       | Product Pump   | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A      | N/A      | N/A      | N/A     |
|       | PSH Thickness  | 0.24    | 0.25    | 0.37    | 0.30    | 0.25    | 0.30    | 0.26    | 0.11    | 0.28    | 0.20    | 0.28     | 0.38     | 2.91     | 0.16    |
|       | TOC Elev       | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44 | 3348.44  | 3348.44  | 3348.44  | 3348.44 |
|       | PSH Elev       | 3328.74 | 3328.71 | 3328.72 | 3328.71 | 3328.72 | 3328.69 | 3328.64 | 3328.71 | 3328.69 | 3328.64 | 3328.65  | 3328.74  | 3334.15  | 3328.66 |
|       | Water Elev     | 3328.50 | 3328.46 | 3328.35 | 3328.41 | 3328.47 | 3328.39 | 3328.38 | 3328.60 | 3328.41 | 3328.44 | 3328.37  | 3328.36  | 3331.24  | 3328.50 |
| RW-22 | Depth to PSH   | 17.25   | Too Wet | 0       | 0       | Too Wet | 17.92   | 0       | Too Wet | 17.86   | Too Wet | 17.17    | Too Wet  | 17.49    | 18.06   |
|       | Depth to Water | 17.25   | Too Wet | 17.71   | 18.13   | Too Wet | 17.93   | 17.34   | Too Wet | 17.87   | Too Wet | 17.19    | Too Wet  | 17.5     | 18.07   |
|       | Product Pump   | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A     | N/A      | N/A      | N/A      | N/A     |
|       | PSH Thickness  | 0.00    | #VALUE! | 0.00    | 0.00    | #VALUE! | 0.01    | 0.00    | #VALUE! | 0.01    | #VALUE! | 0.02     | #VALUE!  | 0.01     | 0.01    |
|       | TOC Elev       | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21 | 3349.21  | 3349.21  | 3349.21  | 3349.21 |
|       | PSH Elev       | 3331.96 | #VALUE! |         |         | #VALUE! | 3331.29 |         | #VALUE! | 3331.35 | #VALUE! | 3332.04  | #VALUE!  | 3331.72  | 3331.15 |
|       | Water Elev     | 3331.96 | #VALUE! | 3331.50 | 3331.08 | #VALUE! | 3331.28 | 3331.87 | #VALUE! | 3331.34 | #VALUE! | 3332.02  | #VALUE!  | 3331.71  | 3331.14 |

Gauging Data

| Well  | Date:          | 11/13/15 | 11/20/15 | 11/24/15 | 12/4/15 | 12/9/15 | 12/22/15 |
|-------|----------------|----------|----------|----------|---------|---------|----------|
| RW-1R | Depth to PSH   | 0        | 0        | 0        | 0       | 0       | 0        |
|       | Depth to Water | 7.55     | 7.72     | 7.59     | 7.77    | 7.65    | 8.07     |
|       | Product Pump   | Out      | Out      | Out      | Out     | Out     | Out      |
|       | PSH Thickness  | 0.00     | 0.00     | 0.00     | 0.00    | 0.00    | 0.00     |
|       | TOC Elev       | 3367.03  | 3367.03  | 3367.03  | 3367.03 | 3367.03 | 3367.03  |
|       | PSH Elev       |          |          |          |         |         |          |
|       | Water Elev     | 3359.48  | 3359.31  | 3359.44  | 3359.26 | 3359.38 | 3358.96  |
| RW-2R | Depth to PSH   | 0        | 0        | 0        | 0       | 0       | 0        |
|       | Depth to Water | 8.98     | 9.19     | 9.05     | 9.17    | 9.02    | 9.34     |
|       | Product Pump   | Out      | Out      | Out      | Out     | Out     | Out      |
|       | PSH Thickness  | 0.00     | 0.00     | 0.00     | 0.00    | 0.00    | 0.00     |
|       | TOC Elev       | 3368.17  | 3368.17  | 3368.17  | 3368.17 | 3368.17 | 3368.17  |
|       | PSH Elev       |          |          |          |         |         |          |
|       | Water Elev     | 3359.19  | 3358.98  | 3359.12  | 3359.00 | 3359.15 | 3358.83  |
| RW-4R | Depth to PSH   | 0        | 0        | 0        | 0       | 0       | 0        |
|       | Depth to Water | 11.3     | 11.38    | 11.39    | 11.58   | 11.52   | 11.69    |
|       | Product Pump   | Out      | Out      | Out      | Out     | Out     | Out      |
|       | PSH Thickness  | 0.00     | 0.00     | 0.00     | 0.00    | 0.00    | 0.00     |
|       | TOC Elev       | 3364.86  | 3364.86  | 3364.86  | 3364.86 | 3364.86 | 3364.86  |
|       | PSH Elev       |          |          |          |         |         |          |
|       | Water Elev     | 3353.56  | 3353.48  | 3353.47  | 3353.28 | 3353.34 | 3353.17  |
| RW-5R | Depth to PSH   | 13.48    | 13.69    | 13.65    | 13.84   | 13.88   | 13.85    |
|       | Depth to Water | 13.57    | 13.74    | 13.8     | 14.3    | 13.93   | 13.9     |
|       | Product Pump   | Out      | Out      | Out      | Out     | Out     | Out      |
|       | PSH Thickness  | 0.09     | 0.05     | 0.15     | 0.46    | 0.05    | 0.05     |
|       | TOC Elev       | 3368.56  | 3368.56  | 3368.56  | 3368.56 | 3368.56 | 3368.56  |
|       | PSH Elev       | 3355.08  | 3354.87  | 3354.91  | 3354.72 | 3354.68 | 3354.71  |
|       | Water Elev     | 3354.99  | 3354.82  | 3354.76  | 3354.26 | 3354.63 | 3354.66  |
| RW-6R | Depth to PSH   | 0        | 0        | 0        | 0       | 0       | 0        |
|       | Depth to Water | 12.68    | 12.67    | 12.52    | 12.81   | 12.66   | 12.65    |
|       | Product Pump   | Out      | Out      | Out      | Out     | Out     | Out      |
|       | PSH Thickness  | 0.00     | 0.00     | 0.00     | 0.00    | 0.00    | 0.00     |
|       | TOC Elev       | 3368.36  | 3368.36  | 3368.36  | 3368.36 | 3368.36 | 3368.36  |
|       | PSH Elev       |          |          |          |         |         |          |
|       | Water Elev     | 3355.68  | 3355.69  | 3355.84  | 3355.55 | 3355.70 | 3355.71  |
| RW-7R | Depth to PSH   | 0        | 0        | 0        | 0       | 0       | 0        |
|       | Depth to Water | 8.31     | 8.49     | 7.44     | 8.78    | 8.69    | 9.09     |
|       | Product Pump   | Out      | Out      | Out      | Out     | Out     | Out      |
|       | PSH Thickness  | 0.00     | 0.00     | 0.00     | 0.00    | 0.00    | 0.00     |
|       | TOC Elev       | 3367.09  | 3367.09  | 3367.09  | 3367.09 | 3367.09 | 3367.09  |
|       | PSH Elev       |          |          |          |         |         |          |
|       | Water Elev     | 3358.78  | 3358.60  | 3359.65  | 3358.31 | 3358.40 | 3358.00  |

Gauging Data

| Well   | Date:          | 11/13/15 | 11/20/15 | 11/24/15 | 12/4/15 | 12/9/15 | 12/22/15 |
|--------|----------------|----------|----------|----------|---------|---------|----------|
| RW-8R  | Depth to PSH   | 0        | 0        | 0        | 0       | 0       | 0        |
|        | Depth to Water | 8.2      | 8.3      | 8.15     | 8.4     | 8.27    | 11.55    |
|        | Product Pump   | 9.5      | 9.5      | 9.5      | 9.5     | 9.5     | 9.5      |
|        | PSH Thickness  | 0.00     | 0.00     | 0.00     | 0.00    | 0.00    | 0.00     |
|        | TOC Elev       | 3368.10  | 3368.10  | 3368.10  | 3368.10 | 3368.10 | 3368.10  |
|        | PSH Elev       |          |          |          |         |         |          |
|        | Water Elev     | 3359.90  | 3359.80  | 3359.95  | 3359.70 | 3359.83 | 3356.55  |
| RW-12R | Depth to PSH   | 0        | 0        | 0        | 0       | 0       | 0        |
|        | Depth to Water | 20       | 19.96    | 20.88    | 20.44   | 21.7    | 21.72    |
|        | Product Pump   | 20.36    | 20.36    | 20.36    | 20.36   | 20.36   | 20.36    |
|        | PSH Thickness  | 0.00     | 0.00     | 0.00     | 0.00    | 0.00    | 0.00     |
|        | TOC Elev       | 3351.54  | 3351.54  | 3351.54  | 3351.54 | 3351.54 | 3351.54  |
|        | PSH Elev       |          |          |          |         |         |          |
|        | Water Elev     | 3331.54  | 3331.58  | 3330.66  | 3331.10 | 3329.84 | 3329.82  |
| RW-13R | Depth to PSH   | 19.34    | 19.89    | 20       | 20.39   | 20.45   | 20.5     |
|        | Depth to Water | 19.37    | 19.91    | 20.03    | 20.4    | 20.49   | 20.54    |
|        | Product Pump   | 17.87    | 17.87    | 17.87    | 17.87   | 17.87   | 17.87    |
|        | PSH Thickness  | 0.03     | 0.02     | 0.03     | 0.01    | 0.04    | 0.04     |
|        | TOC Elev       | 3351.54  | 3351.54  | 3351.54  | 3351.54 | 3351.54 | 3351.54  |
|        | PSH Elev       | 3332.20  | 3331.65  | 3331.54  | 3331.15 | 3331.09 | 3331.04  |
|        | Water Elev     | 3332.17  | 3331.63  | 3331.51  | 3331.14 | 3331.05 | 3331.00  |
| RW-14R | Depth to PSH   | 16.54    | 16.71    | 16.74    | 17      | 17      | 17       |
|        | Depth to Water | 16.54    | 16.9     | 16.89    | 17.12   | 17.03   | 17.19    |
|        | Product Pump   | 17.13    | 17.13    | 17.13    | 17.13   | 17.2    | 17.2     |
|        | PSH Thickness  | 0.00     | 0.19     | 0.15     | 0.12    | 0.03    | 0.19     |
|        | TOC Elev       | 3349.37  | 3349.37  | 3349.37  | 3349.37 | 3349.37 | 3349.37  |
|        | PSH Elev       | 3332.83  | 3332.66  | 3332.63  | 3332.37 | 3332.37 | 3332.37  |
|        | Water Elev     | 3332.83  | 3332.47  | 3332.48  | 3332.25 | 3332.34 | 3332.18  |
| RW-15  | Depth to PSH   | 0        | 0        | 0        | 0       | 13.1    | 13.08    |
|        | Depth to Water | 12.61    | 12.85    | 12.81    | 13.09   | 13.11   | 13.1     |
|        | Product Pump   | N/A      | N/A      | N/A      | N/A     | N/A     | N/A      |
|        | PSH Thickness  | 0.00     | 0.00     | 0.00     | 0.00    | 0.01    | 0.02     |
|        | TOC Elev       | 3365.30  | 3365.30  | 3365.30  | 3365.30 | 3365.30 | 3365.30  |
|        | PSH Elev       |          |          |          |         | 3352.20 | 3352.22  |
|        | Water Elev     | 3352.69  | 3352.45  | 3352.49  | 3352.21 | 3352.19 | 3352.20  |
| RW-19  | Depth to PSH   | 20.95    | 21.09    | 21.02    | 21.43   | 21.4    | 21.41    |
|        | Depth to Water | 21.25    | 21.42    | 21.33    | 21.69   | 21.7    | 21.7     |
|        | Product Pump   | 21.52    | 21.52    | 21.52    | 21.52   | 21.52   | 21.52    |
|        | PSH Thickness  | 0.30     | 0.33     | 0.31     | 0.26    | 0.30    | 0.29     |
|        | TOC Elev       | 3369.11  | 3369.11  | 3369.11  | 3369.11 | 3369.11 | 3369.11  |
|        | PSH Elev       | 3348.16  | 3348.02  | 3348.09  | 3347.68 | 3347.71 | 3347.70  |
|        | Water Elev     | 3347.86  | 3347.69  | 3347.78  | 3347.42 | 3347.41 | 3347.41  |

Gauging Data

| Well  | Date:          | 11/13/15 | 11/20/15 | 11/24/15 | 12/4/15 | 12/9/15 | 12/22/15 |
|-------|----------------|----------|----------|----------|---------|---------|----------|
| RW-20 | Depth to PSH   | 19.78    | 19.75    | 19.78    | 19.78   | 19.75   | 19.75    |
|       | Depth to Water | 19.96    | 19.99    | 20.08    | 20      | 19.97   | 20       |
|       | Product Pump   | N/A      | N/A      | N/A      | N/A     | N/A     | N/A      |
|       | PSH Thickness  | 0.18     | 0.24     | 0.30     | 0.22    | 0.22    | 0.25     |
|       | TOC Elev       | 3348.44  | 3348.44  | 3348.44  | 3348.44 | 3348.44 | 3348.44  |
|       | PSH Elev       | 3328.66  | 3328.69  | 3328.66  | 3328.66 | 3328.69 | 3328.69  |
|       | Water Elev     | 3328.48  | 3328.45  | 3328.36  | 3328.44 | 3328.47 | 3328.44  |
| RW-22 | Depth to PSH   | 18.63    | 0        | 0        | 0       | 19.81   | 19.8     |
|       | Depth to Water | 18.63    | 19       | 19.13    | 19.58   | 19.81   | 19.8     |
|       | Product Pump   | N/A      | N/A      | N/A      | N/A     | N/A     | N/A      |
|       | PSH Thickness  | 0.00     | 0.00     | 0.00     | 0.00    | 0.00    | 0.00     |
|       | TOC Elev       | 3349.21  | 3349.21  | 3349.21  | 3349.21 | 3349.21 | 3349.21  |
|       | PSH Elev       | 3330.58  |          |          |         | 3329.40 | 3329.41  |
|       | Water Elev     | 3330.58  | 3330.21  | 3330.08  | 3329.63 | 3329.40 | 3329.41  |

# APPENDIX F

Refinery Discharges Laboratory Reports



F.1 RO Reject Discharge Analytical Data 2015

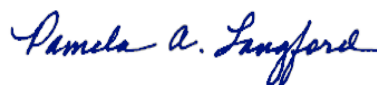


## ARCADIS US - TX

Sample Delivery Group: L759281  
Samples Received: 04/15/2015  
Project Number: TX000836.0008.15009  
Description: Reject

Report To: Project Manager  
2929 Briarpark Dr., Suite 300  
Houston, TX 77042

Entire Report Reviewed By:



Pam Langford

Pam Langford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



|                                                         |           |                       |
|---------------------------------------------------------|-----------|-----------------------|
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# SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



## REGULAR UNIT SOUTH FIELD RD REJECT L759281-01 GW

Collected by  
Scott Ude

Collected date/time  
04/14/15 13:30

Received date/time  
04/15/15 09:00

| Method                                                  | Batch    | Dilution | Preparation<br>date/time | Analysis<br>date/time | Analysis Analyst |
|---------------------------------------------------------|----------|----------|--------------------------|-----------------------|------------------|
| Gravimetric Analysis by Method 2540 C-2011              | WG782480 | 1        | 04/16/15 17:17           | 04/17/15 15:25        | MF               |
| Mercury by Method 7470A                                 | WG782318 | 1        | 04/20/15 15:24           | 04/21/15 09:32        | ESC              |
| Mercury by Method 7470A                                 | WG784623 | 1        | 04/25/15 15:21           | 04/27/15 08:39        | ESC              |
| Metals (ICPMS) by Method 6020                           | WG783437 | 10       | 04/21/15 20:13           | 04/23/15 13:38        | JD               |
| Metals (ICPMS) by Method 6020                           | WG783437 | 5        | 04/21/15 20:13           | 04/23/15 12:53        | JD               |
| Polychlorinated Biphenyls (GC) by Method 8082           | WG782838 | 1        | 04/17/15 15:34           | 04/20/15 10:42        | EGR              |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C | WG782361 | 1        | 04/16/15 16:08           | 04/17/15 05:02        | ADF              |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C | WG782361 | 1        | 04/16/15 16:08           | 04/17/15 17:00        | KMF              |
| Semi-Volatile Organic Compounds (GC) by Method 8015     | WG782628 | 1        | 04/16/15 08:43           | 04/16/15 17:17        | JNS              |
| Volatile Organic Compounds (GC) by Method 8015D/GRO     | WG782393 | 1        | 04/16/15 21:05           | 04/16/15 21:05        | MCB              |
| Volatile Organic Compounds (GC/MS) by Method 8260B      | WG782439 | 1        | 04/18/15 02:24           | 04/18/15 02:24        | KLO              |
| Wet Chemistry by Method 353.2                           | WG783651 | 1        | 04/24/15 12:35           | 04/24/15 12:35        | JAL              |
| Wet Chemistry by Method 9012B                           | WG783058 | 1        | 04/18/15 12:19           | 04/21/15 09:48        | MCG              |
| Wet Chemistry by Method 9056MOD                         | WG782493 | 1        | 04/20/15 19:21           | 04/20/15 19:21        | NJM              |
| Wet Chemistry by Method 9056MOD                         | WG782493 | 50       | 04/20/15 22:25           | 04/20/15 22:25        | NJM              |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

## TEMPORARY UNIT SOUTH FIELD RD REJECT L759281-02 GW

Collected by  
Scott Ude

Collected date/time  
04/14/15 13:15

Received date/time  
04/15/15 09:00

| Method                                                  | Batch    | Dilution | Preparation<br>date/time | Analysis<br>date/time | Analysis Analyst |
|---------------------------------------------------------|----------|----------|--------------------------|-----------------------|------------------|
| Gravimetric Analysis by Method 2540 C-2011              | WG782480 | 1        | 04/16/15 17:17           | 04/17/15 15:28        | MF               |
| Mercury by Method 7470A                                 | WG782318 | 1        | 04/20/15 15:24           | 04/21/15 09:45        | ESC              |
| Mercury by Method 7470A                                 | WG784623 | 1        | 04/25/15 15:21           | 04/27/15 08:42        | ESC              |
| Metals (ICPMS) by Method 6020                           | WG783437 | 10       | 04/21/15 20:13           | 04/23/15 13:41        | JD               |
| Metals (ICPMS) by Method 6020                           | WG783437 | 5        | 04/21/15 20:13           | 04/23/15 13:02        | JD               |
| Polychlorinated Biphenyls (GC) by Method 8082           | WG782838 | 1        | 04/17/15 15:34           | 04/20/15 10:55        | EGR              |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C | WG782361 | 1        | 04/16/15 16:08           | 04/17/15 05:25        | ADF              |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C | WG782361 | 1        | 04/16/15 16:08           | 04/17/15 17:17        | KMF              |
| Semi-Volatile Organic Compounds (GC) by Method 8015     | WG782628 | 1        | 04/16/15 08:43           | 04/16/15 17:34        | JNS              |
| Volatile Organic Compounds (GC) by Method 8015D/GRO     | WG782393 | 1        | 04/16/15 21:27           | 04/16/15 21:27        | MCB              |
| Volatile Organic Compounds (GC/MS) by Method 8260B      | WG782439 | 1        | 04/18/15 02:46           | 04/18/15 02:46        | KLO              |
| Wet Chemistry by Method 353.2                           | WG783651 | 1        | 04/24/15 12:39           | 04/24/15 12:39        | JAL              |
| Wet Chemistry by Method 9012B                           | WG783058 | 1        | 04/18/15 12:19           | 04/21/15 09:49        | MCG              |
| Wet Chemistry by Method 9056MOD                         | WG782493 | 1        | 04/20/15 19:36           | 04/20/15 19:36        | NJM              |
| Wet Chemistry by Method 9056MOD                         | WG782493 | 50       | 04/20/15 22:40           | 04/20/15 22:40        | NJM              |

<sup>9</sup>Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Pam Langford

Pam Langford  
Technical Service Representative

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|------------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| Dissolved Solids | 2950000        |           | 2800        | 10000       | 1        | 04/17/2015 15:25        | <a href="#">WG782480</a> |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Wet Chemistry by Method 353.2

| Analyte         | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|-----------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| Nitrate-Nitrite | 2140           |           | 20.0        | 100         | 1        | 04/24/2015 12:35        | <a href="#">WG783651</a> |

## Wet Chemistry by Method 9012B

| Analyte | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|---------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| Cyanide | U              |           | 1.80        | 5.00        | 1        | 04/21/2015 09:48        | <a href="#">WG783058</a> |

## Wet Chemistry by Method 9056MOD

| Analyte  | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|----------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| Chloride | 52900          |           | 52.0        | 1000        | 1        | 04/20/2015 19:21        | <a href="#">WG782493</a> |
| Fluoride | 3610           |           | 9.90        | 100         | 1        | 04/20/2015 19:21        | <a href="#">WG782493</a> |
| Sulfate  | 1530000        |           | 3900        | 250000      | 50       | 04/20/2015 22:25        | <a href="#">WG782493</a> |

## Mercury by Method 7470A

| Analyte           | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|-------------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| Mercury           | U              |           | 0.0490      | 0.200       | 1        | 04/27/2015 08:39        | <a href="#">WG784623</a> |
| Mercury,Dissolved | U              |           | 0.0490      | 0.200       | 1        | 04/21/2015 09:32        | <a href="#">WG782318</a> |

## Metals (ICPMS) by Method 6020

| Analyte              | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|----------------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| Aluminum,Dissolved   | 16.6           | J         | 10.0        | 500         | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Arsenic,Dissolved    | U              |           | 1.20        | 10.0        | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Barium,Dissolved     | 69.6           |           | 1.80        | 25.0        | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Boron,Dissolved      | 116            |           | 7.50        | 100         | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Cadmium,Dissolved    | U              |           | 0.800       | 5.00        | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Calcium,Dissolved    | 685000         |           | 460         | 10000       | 10       | 04/23/2015 13:38        | <a href="#">WG783437</a> |
| Chromium,Dissolved   | U              |           | 2.70        | 10.0        | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Copper,Dissolved     | 88.7           | J6 O1     | 2.60        | 25.0        | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Cobalt,Dissolved     | U              |           | 1.30        | 10.0        | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Iron,Dissolved       | U              |           | 75.0        | 500         | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Lead,Dissolved       | U              |           | 1.20        | 10.0        | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Manganese,Dissolved  | 2.44           | J         | 1.20        | 25.0        | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Molybdenum,Dissolved | 12.1           | J         | 0.700       | 25.0        | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Nickel,Dissolved     | 17.5           |           | 1.80        | 10.0        | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Potassium,Dissolved  | 5480           |           | 180         | 5000        | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Selenium,Dissolved   | 8.08           | J         | 1.90        | 10.0        | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Silver,Dissolved     | U              |           | 1.60        | 10.0        | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Sodium,Dissolved     | 60000          | V         | 550         | 5000        | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Uranium,Dissolved    | 5.46           | J         | 1.60        | 50.0        | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |
| Zinc,Dissolved       | 16.1           | J         | 13.0        | 125         | 5        | 04/23/2015 12:53        | <a href="#">WG783437</a> |

## Volatile Organic Compounds (GC) by Method 8015D/GRO

| Analyte                   | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|---------------------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| TPH (GC/FID) Low Fraction | U              |           | 31.0        | 100         | 1        | 04/16/2015 21:05        | <a href="#">WG782393</a> |



## Volatile Organic Compounds (GC) by Method 8015D/GRO

| Analyte                         | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|---------------------------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| (S) a,a,a-Trifluorotoluene(FID) | 91.3           |           |             | 62.0-128    |          | 04/16/2015 21:05        | <a href="#">WG782393</a> |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Volatile Organic Compounds (GC/MS) by Method 8260B

| Analyte                     | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|-----------------------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| Acetone                     | U              |           | 10.0        | 50.0        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Benzene                     | U              |           | 0.330       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Bromodichloromethane        | U              |           | 0.380       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Bromoform                   | U              | J3        | 0.470       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Bromomethane                | U              |           | 0.870       | 5.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| n-Butylbenzene              | 0.438          | J         | 0.360       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| sec-Butylbenzene            | U              |           | 0.360       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Carbon disulfide            | U              |           | 0.280       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Carbon tetrachloride        | U              |           | 0.380       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Chlorobenzene               | U              |           | 0.350       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Chlorodibromomethane        | U              |           | 0.330       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Chloroethane                | U              |           | 0.450       | 5.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Chloroform                  | U              |           | 0.320       | 5.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Chloromethane               | U              |           | 0.280       | 2.50        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| 1,2-Dibromoethane           | U              | J3        | 0.380       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| 1,1-Dichloroethane          | U              |           | 0.260       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| 1,2-Dichloroethane          | U              |           | 0.360       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| 1,1-Dichloroethene          | U              |           | 0.400       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| cis-1,2-Dichloroethene      | U              |           | 0.260       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| trans-1,2-Dichloroethene    | U              |           | 0.400       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| 1,2-Dichloropropane         | U              |           | 0.310       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| cis-1,3-Dichloropropene     | U              |           | 0.420       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| trans-1,3-Dichloropropene   | U              |           | 0.420       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Ethylbenzene                | U              |           | 0.380       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Isopropylbenzene            | U              |           | 0.330       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| p-Isopropyltoluene          | U              |           | 0.350       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| 2-Butanone (MEK)            | U              |           | 3.90        | 10.0        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| 2-Hexanone                  | U              |           | 3.80        | 10.0        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Methylene Chloride          | U              |           | 1.00        | 5.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| 4-Methyl-2-pentanone (MIBK) | U              |           | 2.10        | 10.0        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Methyl tert-butyl ether     | U              |           | 0.370       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Naphthalene                 | U              |           | 1.00        | 5.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| n-Propylbenzene             | U              |           | 0.350       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Styrene                     | U              | J3        | 0.310       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| 1,1,1,2-Tetrachloroethane   | U              |           | 0.380       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| 1,1,2,2-Tetrachloroethane   | U              |           | 0.130       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Tetrachloroethene           | U              |           | 0.370       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Toluene                     | U              |           | 0.780       | 5.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| 1,1,1-Trichloroethane       | U              |           | 0.319       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| 1,1,2-Trichloroethane       | U              |           | 0.380       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Trichloroethene             | U              |           | 0.400       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| 1,2,4-Trimethylbenzene      | U              |           | 0.370       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| 1,3,5-Trimethylbenzene      | U              |           | 0.390       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Vinyl chloride              | U              |           | 0.260       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| o-Xylene                    | U              |           | 0.340       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| m&p-Xylene                  | U              |           | 0.720       | 1.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| Xylenes, Total              | U              |           | 1.10        | 3.00        | 1        | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| (S) Toluene-d8              | 102            |           |             | 88.5-111    |          | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| (S) Dibromofluoromethane    | 94.8           |           |             | 78.3-121    |          | 04/18/2015 02:24        | <a href="#">WG782439</a> |
| (S) 4-Bromofluorobenzene    | 104            |           |             | 71.0-126    |          | 04/18/2015 02:24        | <a href="#">WG782439</a> |



## Semi-Volatile Organic Compounds (GC) by Method 8015

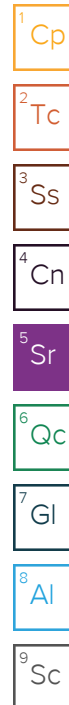
| Analyte              | Result | Qualifier | MDL  | RDL      | Dilution | Analysis         | Batch                    |
|----------------------|--------|-----------|------|----------|----------|------------------|--------------------------|
|                      | ug/l   |           | ug/l | ug/l     |          | date / time      |                          |
| C10-C28 Diesel Range | U      |           | 22.0 | 100      | 1        | 04/16/2015 17:17 | <a href="#">WG782628</a> |
| C28-C40 Oil Range    | U      |           | 12.0 | 100      | 1        | 04/16/2015 17:17 | <a href="#">WG782628</a> |
| (S) o-Terphenyl      | 115    |           |      | 50.0-150 |          | 04/16/2015 17:17 | <a href="#">WG782628</a> |

## Polychlorinated Biphenyls (GC) by Method 8082

| Analyte                  | Result | Qualifier | MDL    | RDL      | Dilution | Analysis         | Batch                    |
|--------------------------|--------|-----------|--------|----------|----------|------------------|--------------------------|
|                          | ug/l   |           | ug/l   | ug/l     |          | date / time      |                          |
| PCB 1016                 | U      |           | 0.100  | 0.500    | 1        | 04/20/2015 10:42 | <a href="#">WG782838</a> |
| PCB 1221                 | U      |           | 0.0730 | 0.500    | 1        | 04/20/2015 10:42 | <a href="#">WG782838</a> |
| PCB 1232                 | U      |           | 0.0420 | 0.500    | 1        | 04/20/2015 10:42 | <a href="#">WG782838</a> |
| PCB 1242                 | U      |           | 0.0470 | 0.500    | 1        | 04/20/2015 10:42 | <a href="#">WG782838</a> |
| PCB 1248                 | U      |           | 0.0860 | 0.500    | 1        | 04/20/2015 10:42 | <a href="#">WG782838</a> |
| PCB 1254                 | U      |           | 0.0470 | 0.500    | 1        | 04/20/2015 10:42 | <a href="#">WG782838</a> |
| PCB 1260                 | U      |           | 0.120  | 0.500    | 1        | 04/20/2015 10:42 | <a href="#">WG782838</a> |
| (S) Decachlorobiphenyl   | 85.1   |           |        | 10.0-156 |          | 04/20/2015 10:42 | <a href="#">WG782838</a> |
| (S) Tetrachloro-m-xylene | 82.3   |           |        | 13.9-137 |          | 04/20/2015 10:42 | <a href="#">WG782838</a> |

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C

| Analyte                     | Result | Qualifier | MDL    | RDL  | Dilution | Analysis         | Batch                    |
|-----------------------------|--------|-----------|--------|------|----------|------------------|--------------------------|
|                             | ug/l   |           | ug/l   | ug/l |          | date / time      |                          |
| Acenaphthene                | U      |           | 0.320  | 1.00 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Acenaphthylene              | U      |           | 0.310  | 1.00 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Acetophenone                | U      |           | 2.70   | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Anthracene                  | U      |           | 0.290  | 1.00 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Atrazine                    | U      |           | 1.50   | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Benzaldehyde                | U      |           | 1.40   | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Benzo(a)anthracene          | U      |           | 0.110  | 1.00 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Benzo(b)fluoranthene        | U      |           | 0.0900 | 1.00 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Benzo(k)fluoranthene        | U      |           | 0.360  | 1.00 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Benzo(g,h,i)perylene        | U      |           | 0.160  | 1.00 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Benzo(a)pyrene              | U      |           | 0.340  | 1.00 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Bis(2-chlorethoxy)methane   | U      |           | 0.330  | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Bis(2-chloroisopropyl)ether | U      |           | 0.440  | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Biphenyl                    | U      |           | 0.210  | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Bis(2-chloroethyl)ether     | U      |           | 1.60   | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| 4-Bromophenyl-phenylether   | U      |           | 0.340  | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| 2-Chloronaphthalene         | U      |           | 0.330  | 1.00 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| 4-Chlorophenyl-phenylether  | U      |           | 0.300  | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Chrysene                    | U      |           | 0.330  | 1.00 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Caprolactam                 | 0.894  | L         | 0.580  | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Carbazole                   | U      |           | 0.160  | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Dibenz(a,h)anthracene       | U      |           | 0.280  | 1.00 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| 3,3-Dichlorobenzidine       | U      |           | 2.00   | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| 2,4-Dinitrotoluene          | U      |           | 1.60   | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| 2,6-Dinitrotoluene          | U      |           | 0.280  | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Fluoranthene                | U      |           | 0.310  | 1.00 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Fluorene                    | U      |           | 0.320  | 1.00 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Hexachlorobenzene           | U      |           | 0.340  | 1.00 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Hexachloro-1,3-butadiene    | U      |           | 0.330  | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Hexachlorocyclopentadiene   | U      |           | 2.30   | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Hexachloroethane            | U      |           | 0.360  | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Indeno(1,2,3-cd)pyrene      | U      |           | 0.280  | 1.00 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Isophorone                  | U      |           | 0.270  | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Naphthalene                 | U      |           | 0.370  | 1.00 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |
| Nitrobenzene                | U      |           | 0.370  | 10.0 | 1        | 04/17/2015 05:02 | <a href="#">WG782361</a> |

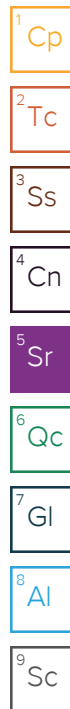




L759281

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C

| Analyte                    | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|----------------------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| n-Nitrosodiphenylamine     | U              |           | 0.300       | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| n-Nitrosodi-n-propylamine  | U              |           | 0.400       | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| Phenanthrene               | U              |           | 0.370       | 1.00        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| Benzylbutyl phthalate      | U              |           | 0.280       | 3.00        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| Bis(2-Ethylhexyl)phthalate | 2.59           | L         | 0.710       | 3.00        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| Di-n-butyl phthalate       | 2.33           | L         | 0.270       | 3.00        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| Diethyl phthalate          | U              |           | 0.280       | 3.00        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| Dimethyl phthalate         | 0.343          | L         | 0.280       | 3.00        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| Di-n-octyl phthalate       | 0.447          | L         | 0.280       | 3.00        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| Pyrene                     | U              |           | 0.330       | 1.00        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 1-Methylnaphthalene        | U              |           | 0.220       | 1.00        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 4-Chloroaniline            | U              |           | 0.380       | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 4-Chloro-3-methylphenol    | U              |           | 0.260       | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 2-Chlorophenol             | U              |           | 0.280       | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| Dibenzofuran               | U              |           | 0.340       | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 2,4-Dichlorophenol         | U              |           | 0.280       | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 2,4-Dimethylphenol         | U              |           | 0.620       | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 4,6-Dinitro-2-methylphenol | U              |           | 2.60        | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 2,4-Dinitrophenol          | U              |           | 3.20        | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 2-Methylnaphthalene        | U              |           | 0.310       | 1.00        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 2-Methylphenol             | U              |           | 0.310       | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 3&4-Methyl Phenol          | U              |           | 0.270       | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 2-Nitroaniline             | U              |           | 1.90        | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 3-Nitroaniline             | U              |           | 0.310       | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 4-Nitroaniline             | U              |           | 0.350       | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 2-Nitrophenol              | U              |           | 0.320       | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 4-Nitrophenol              | U              |           | 2.00        | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| Pentachlorophenol          | U              |           | 0.310       | 1.00        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| Phenol                     | U              |           | 0.330       | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 2,4,6-Trichlorophenol      | U              |           | 0.300       | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 2,4,5-Trichlorophenol      | U              |           | 0.240       | 10.0        | 1        | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| 1,3,5-Trinitrobenzene      | U              |           | 1.30        | 10.0        | 1        | 04/17/2015 17:00        | <a href="#">WG782361</a> |
| (S) 2-Fluorophenol         | 57.6           |           |             | 10.0-77.9   |          | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| (S) Phenol-d5              | 44.0           |           |             | 5.00-70.1   |          | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| (S) Nitrobenzene-d5        | 74.1           |           |             | 21.8-123    |          | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| (S) 2-Fluorobiphenyl       | 81.3           |           |             | 29.5-131    |          | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| (S) 2,4,6-Tribromophenol   | 75.0           |           |             | 11.2-130    |          | 04/17/2015 05:02        | <a href="#">WG782361</a> |
| (S) p-Terphenyl-d14        | 77.5           |           |             | 29.3-137    |          | 04/17/2015 05:02        | <a href="#">WG782361</a> |





## Gravimetric Analysis by Method 2540 C-2011

| Analyte          | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|------------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| Dissolved Solids | 3590000        |           | 2800        | 10000       | 1        | 04/17/2015 15:28        | <a href="#">WG782480</a> |

## Wet Chemistry by Method 353.2

| Analyte         | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|-----------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| Nitrate-Nitrite | 2470           |           | 20.0        | 100         | 1        | 04/24/2015 12:39        | <a href="#">WG783651</a> |

## Wet Chemistry by Method 9012B

| Analyte | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|---------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| Cyanide | U              |           | 1.80        | 5.00        | 1        | 04/21/2015 09:49        | <a href="#">WG783058</a> |

## Wet Chemistry by Method 9056MOD

| Analyte  | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|----------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| Chloride | 58900          |           | 52.0        | 1000        | 1        | 04/20/2015 19:36        | <a href="#">WG782493</a> |
| Fluoride | 3880           |           | 9.90        | 100         | 1        | 04/20/2015 19:36        | <a href="#">WG782493</a> |
| Sulfate  | 1830000        |           | 3900        | 250000      | 50       | 04/20/2015 22:40        | <a href="#">WG782493</a> |

## Mercury by Method 7470A

| Analyte           | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|-------------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| Mercury           | U              |           | 0.0490      | 0.200       | 1        | 04/27/2015 08:42        | <a href="#">WG784623</a> |
| Mercury,Dissolved | U              |           | 0.0490      | 0.200       | 1        | 04/21/2015 09:45        | <a href="#">WG782318</a> |

## Metals (ICPMS) by Method 6020

| Analyte              | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|----------------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| Aluminum,Dissolved   | 10.9           | U         | 10.0        | 500         | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Arsenic,Dissolved    | 1.52           | U         | 1.20        | 10.0        | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Barium,Dissolved     | 72.2           |           | 1.80        | 25.0        | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Boron,Dissolved      | 123            |           | 7.50        | 100         | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Cadmium,Dissolved    | U              |           | 0.800       | 5.00        | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Calcium,Dissolved    | 806000         |           | 460         | 10000       | 10       | 04/23/2015 13:41        | <a href="#">WG783437</a> |
| Chromium,Dissolved   | U              |           | 2.70        | 10.0        | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Copper,Dissolved     | U              |           | 2.60        | 25.0        | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Cobalt,Dissolved     | U              |           | 1.30        | 10.0        | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Iron,Dissolved       | U              |           | 75.0        | 500         | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Lead,Dissolved       | U              |           | 1.20        | 10.0        | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Manganese,Dissolved  | 5.10           | U         | 1.20        | 25.0        | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Molybdenum,Dissolved | 13.0           | U         | 0.700       | 25.0        | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Nickel,Dissolved     | U              |           | 1.80        | 10.0        | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Potassium,Dissolved  | 6600           |           | 180         | 5000        | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Selenium,Dissolved   | 8.82           | U         | 1.90        | 10.0        | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Silver,Dissolved     | U              |           | 1.60        | 10.0        | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Sodium,Dissolved     | 70300          |           | 550         | 5000        | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Uranium,Dissolved    | 6.09           | U         | 1.60        | 50.0        | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |
| Zinc,Dissolved       | U              |           | 13.0        | 125         | 5        | 04/23/2015 13:02        | <a href="#">WG783437</a> |

## Volatile Organic Compounds (GC) by Method 8015D/GRO

| Analyte                   | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|---------------------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| TPH (GC/FID) Low Fraction | U              |           | 31.0        | 100         | 1        | 04/16/2015 21:27        | <a href="#">WG782393</a> |



## Volatile Organic Compounds (GC) by Method 8015D/GRO

| Analyte                         | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch    |
|---------------------------------|----------------|-----------|-------------|-------------|----------|-------------------------|----------|
| (S) a,a,a-Trifluorotoluene(FID) | 91.1           |           |             | 62.0-128    |          | 04/16/2015 21:27        | WG782393 |

## Volatile Organic Compounds (GC/MS) by Method 8260B

| Analyte                     | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch    |
|-----------------------------|----------------|-----------|-------------|-------------|----------|-------------------------|----------|
| Acetone                     | U              |           | 10.0        | 50.0        | 1        | 04/18/2015 02:46        | WG782439 |
| Benzene                     | U              |           | 0.330       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Bromodichloromethane        | U              |           | 0.380       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Bromoform                   | U              |           | 0.470       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Bromomethane                | U              |           | 0.870       | 5.00        | 1        | 04/18/2015 02:46        | WG782439 |
| n-Butylbenzene              | U              |           | 0.360       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| sec-Butylbenzene            | U              |           | 0.360       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Carbon disulfide            | U              |           | 0.280       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Carbon tetrachloride        | U              |           | 0.380       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Chlorobenzene               | U              |           | 0.350       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Chlorodibromomethane        | U              |           | 0.330       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Chloroethane                | U              |           | 0.450       | 5.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Chloroform                  | U              |           | 0.320       | 5.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Chloromethane               | U              |           | 0.280       | 2.50        | 1        | 04/18/2015 02:46        | WG782439 |
| 1,2-Dibromoethane           | U              |           | 0.380       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| 1,1-Dichloroethane          | U              |           | 0.260       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| 1,2-Dichloroethane          | U              |           | 0.360       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| 1,1-Dichloroethene          | U              |           | 0.400       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| cis-1,2-Dichloroethene      | U              |           | 0.260       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| trans-1,2-Dichloroethene    | U              |           | 0.400       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| 1,2-Dichloropropane         | U              |           | 0.310       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| cis-1,3-Dichloropropene     | U              |           | 0.420       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| trans-1,3-Dichloropropene   | U              |           | 0.420       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Ethylbenzene                | U              |           | 0.380       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Isopropylbenzene            | U              |           | 0.330       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| p-Isopropyltoluene          | U              |           | 0.350       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| 2-Butanone (MEK)            | U              |           | 3.90        | 10.0        | 1        | 04/18/2015 02:46        | WG782439 |
| 2-Hexanone                  | U              |           | 3.80        | 10.0        | 1        | 04/18/2015 02:46        | WG782439 |
| Methylene Chloride          | U              |           | 1.00        | 5.00        | 1        | 04/18/2015 02:46        | WG782439 |
| 4-Methyl-2-pentanone (MIBK) | U              |           | 2.10        | 10.0        | 1        | 04/18/2015 02:46        | WG782439 |
| Methyl tert-butyl ether     | U              |           | 0.370       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Naphthalene                 | U              |           | 1.00        | 5.00        | 1        | 04/18/2015 02:46        | WG782439 |
| n-Propylbenzene             | U              |           | 0.350       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Styrene                     | U              |           | 0.310       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| 1,1,1,2-Tetrachloroethane   | U              |           | 0.380       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| 1,1,2,2-Tetrachloroethane   | U              |           | 0.130       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Tetrachloroethene           | U              |           | 0.370       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Toluene                     | U              |           | 0.780       | 5.00        | 1        | 04/18/2015 02:46        | WG782439 |
| 1,1,1-Trichloroethane       | U              |           | 0.319       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| 1,1,2-Trichloroethane       | U              |           | 0.380       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Trichloroethene             | U              |           | 0.400       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| 1,2,4-Trimethylbenzene      | U              |           | 0.370       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| 1,3,5-Trimethylbenzene      | U              |           | 0.390       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Vinyl chloride              | U              |           | 0.260       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| o-Xylene                    | U              |           | 0.340       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| m&p-Xylene                  | U              |           | 0.720       | 1.00        | 1        | 04/18/2015 02:46        | WG782439 |
| Xylenes, Total              | U              |           | 1.10        | 3.00        | 1        | 04/18/2015 02:46        | WG782439 |
| (S) Toluene-d8              | 103            |           |             | 88.5-111    |          | 04/18/2015 02:46        | WG782439 |
| (S) Dibromofluoromethane    | 93.2           |           |             | 78.3-121    |          | 04/18/2015 02:46        | WG782439 |
| (S) 4-Bromofluorobenzene    | 106            |           |             | 71.0-126    |          | 04/18/2015 02:46        | WG782439 |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Semi-Volatile Organic Compounds (GC) by Method 8015

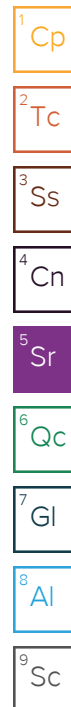
| Analyte              | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|----------------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| C10-C28 Diesel Range | U              |           | 22.0        | 100         | 1        | 04/16/2015 17:34        | <a href="#">WG782628</a> |
| C28-C40 Oil Range    | U              |           | 12.0        | 100         | 1        | 04/16/2015 17:34        | <a href="#">WG782628</a> |
| (S) o-Terphenyl      | 116            |           |             | 50.0-150    |          | 04/16/2015 17:34        | <a href="#">WG782628</a> |

## Polychlorinated Biphenyls (GC) by Method 8082

| Analyte                  | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|--------------------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| PCB 1016                 | U              |           | 0.100       | 0.500       | 1        | 04/20/2015 10:55        | <a href="#">WG782838</a> |
| PCB 1221                 | U              |           | 0.0730      | 0.500       | 1        | 04/20/2015 10:55        | <a href="#">WG782838</a> |
| PCB 1232                 | U              |           | 0.0420      | 0.500       | 1        | 04/20/2015 10:55        | <a href="#">WG782838</a> |
| PCB 1242                 | U              |           | 0.0470      | 0.500       | 1        | 04/20/2015 10:55        | <a href="#">WG782838</a> |
| PCB 1248                 | U              |           | 0.0860      | 0.500       | 1        | 04/20/2015 10:55        | <a href="#">WG782838</a> |
| PCB 1254                 | U              |           | 0.0470      | 0.500       | 1        | 04/20/2015 10:55        | <a href="#">WG782838</a> |
| PCB 1260                 | U              |           | 0.120       | 0.500       | 1        | 04/20/2015 10:55        | <a href="#">WG782838</a> |
| (S) Decachlorobiphenyl   | 85.8           |           |             | 10.0-156    |          | 04/20/2015 10:55        | <a href="#">WG782838</a> |
| (S) Tetrachloro-m-xylene | 85.6           |           |             | 13.9-137    |          | 04/20/2015 10:55        | <a href="#">WG782838</a> |

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C

| Analyte                     | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|-----------------------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| Acenaphthene                | U              |           | 0.320       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Acenaphthylene              | U              |           | 0.310       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Acetophenone                | U              |           | 2.70        | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Anthracene                  | U              |           | 0.290       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Atrazine                    | U              |           | 1.50        | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Benzaldehyde                | U              |           | 1.40        | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Benzo(a)anthracene          | U              |           | 0.110       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Benzo(b)fluoranthene        | U              |           | 0.0900      | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Benzo(k)fluoranthene        | U              |           | 0.360       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Benzo(g,h,i)perylene        | U              |           | 0.160       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Benzo(a)pyrene              | U              |           | 0.340       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Bis(2-chlorethoxy)methane   | U              |           | 0.330       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Bis(2-chloroisopropyl)ether | U              |           | 0.440       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Biphenyl                    | U              |           | 0.210       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Bis(2-chloroethyl)ether     | U              |           | 1.60        | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 4-Bromophenyl-phenylether   | U              |           | 0.340       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 2-Chloronaphthalene         | U              |           | 0.330       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 4-Chlorophenyl-phenylether  | U              |           | 0.300       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Chrysene                    | U              |           | 0.330       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Caprolactam                 | U              |           | 0.580       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Carbazole                   | U              |           | 0.160       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Dibenz(a,h)anthracene       | U              |           | 0.280       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 3,3-Dichlorobenzidine       | U              |           | 2.00        | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 2,4-Dinitrotoluene          | U              |           | 1.60        | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 2,6-Dinitrotoluene          | U              |           | 0.280       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Fluoranthene                | U              |           | 0.310       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Fluorene                    | U              |           | 0.320       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Hexachlorobenzene           | U              |           | 0.340       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Hexachloro-1,3-butadiene    | U              |           | 0.330       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Hexachlorocyclopentadiene   | U              |           | 2.30        | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Hexachloroethane            | U              |           | 0.360       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Indeno(1,2,3-cd)pyrene      | U              |           | 0.280       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Isophorone                  | U              |           | 0.270       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Naphthalene                 | U              |           | 0.370       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Nitrobenzene                | U              |           | 0.370       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |





## Semi Volatile Organic Compounds (GC/MS) by Method 8270C

| Analyte                    | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch                    |
|----------------------------|----------------|-----------|-------------|-------------|----------|-------------------------|--------------------------|
| n-Nitrosodiphenylamine     | U              |           | 0.300       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| n-Nitrosodi-n-propylamine  | U              |           | 0.400       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Phenanthrene               | U              |           | 0.370       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Benzylbutyl phthalate      | U              |           | 0.280       | 3.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Bis(2-Ethylhexyl)phthalate | 1.60           | L         | 0.710       | 3.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Di-n-butyl phthalate       | 1.19           | L         | 0.270       | 3.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Diethyl phthalate          | U              |           | 0.280       | 3.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Dimethyl phthalate         | U              |           | 0.280       | 3.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Di-n-octyl phthalate       | 0.484          | L         | 0.280       | 3.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Pyrene                     | U              |           | 0.330       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 1-Methylnaphthalene        | U              |           | 0.220       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 4-Chloroaniline            | U              |           | 0.380       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 4-Chloro-3-methylphenol    | U              |           | 0.260       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 2-Chlorophenol             | U              |           | 0.280       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Dibenzofuran               | U              |           | 0.340       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 2,4-Dichlorophenol         | U              |           | 0.280       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 2,4-Dimethylphenol         | U              |           | 0.620       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 4,6-Dinitro-2-methylphenol | U              |           | 2.60        | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 2,4-Dinitrophenol          | U              |           | 3.20        | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 2-Methylnaphthalene        | U              |           | 0.310       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 2-Methylphenol             | U              |           | 0.310       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 3&4-Methyl Phenol          | U              |           | 0.270       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 2-Nitroaniline             | U              |           | 1.90        | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 3-Nitroaniline             | U              |           | 0.310       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 4-Nitroaniline             | U              |           | 0.350       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 2-Nitrophenol              | U              |           | 0.320       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 4-Nitrophenol              | U              |           | 2.00        | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Pentachlorophenol          | U              |           | 0.310       | 1.00        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| Phenol                     | U              |           | 0.330       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 2,4,6-Trichlorophenol      | U              |           | 0.300       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 2,4,5-Trichlorophenol      | U              |           | 0.240       | 10.0        | 1        | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| 1,3,5-Trinitrobenzene      | U              |           | 1.30        | 10.0        | 1        | 04/17/2015 17:17        | <a href="#">WG782361</a> |
| (S) 2-Fluorophenol         | 58.6           |           |             | 10.0-77.9   |          | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| (S) Phenol-d5              | 42.8           |           |             | 5.00-70.1   |          | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| (S) Nitrobenzene-d5        | 74.8           |           |             | 21.8-123    |          | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| (S) 2-Fluorobiphenyl       | 91.3           |           |             | 29.5-131    |          | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| (S) 2,4,6-Tribromophenol   | 78.5           |           |             | 11.2-130    |          | 04/17/2015 05:25        | <a href="#">WG782361</a> |
| (S) p-Terphenyl-d14        | 78.1           |           |             | 29.3-137    |          | 04/17/2015 05:25        | <a href="#">WG782361</a> |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) 04/17/15 15:30

|                  | MB Result | MB Qualifier | MB MDL | MB RDL |
|------------------|-----------|--------------|--------|--------|
| Analyte          | mg/l      |              | mg/l   | mg/l   |
| Dissolved Solids | U         |              | 2.82   | 10.0   |

L759238-01 Original Sample (OS) • Duplicate (DUP)

(OS) 04/17/15 15:24 • (DUP) 04/17/15 15:24

|                  | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|------------------|-----------------|------------|----------|---------|---------------|----------------|
| Analyte          | mg/l            | mg/l       |          | %       |               | %              |
| Dissolved Solids | 425             | 428        | 1        | 0.703   |               | 5              |

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/17/15 15:29 • (LCSD) 04/17/15 15:29

|                  | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD   | RPD Limits |
|------------------|--------------|------------|-------------|----------|-----------|-------------|---------------|----------------|-------|------------|
| Analyte          | mg/l         | mg/l       | mg/l        | %        | %         | %           |               |                | %     | %          |
| Dissolved Solids | 8800         | 8540       | 8520        | 97.0     | 96.8      | 85.0-115    |               |                | 0.234 | 5          |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Method Blank (MB)

(MB) 04/24/15 12:26

|                 | MB Result | <u>MB Qualifier</u> | MB MDL | MB RDL |
|-----------------|-----------|---------------------|--------|--------|
| Analyte         | mg/l      |                     | mg/l   | mg/l   |
| Nitrate-Nitrite | U         |                     | 0.0197 | 0.100  |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L759360-01 Original Sample (OS) • Duplicate (DUP)

(OS) 04/24/15 12:56 • (DUP) 04/24/15 12:57

|                 | Original Result | DUP Result | Dilution | DUP RPD | <u>DUP Qualifier</u> | DUP RPD Limits |
|-----------------|-----------------|------------|----------|---------|----------------------|----------------|
| Analyte         | mg/l            | mg/l       |          | %       |                      | %              |
| Nitrate-Nitrite | 0.61            | 0.61       | 1        | 0.00    |                      | 20             |

L759184-01 Original Sample (OS) • Duplicate (DUP)

(OS) 04/24/15 12:33 • (DUP) 04/24/15 12:34

|                 | Original Result | DUP Result | Dilution | DUP RPD | <u>DUP Qualifier</u> | DUP RPD Limits |
|-----------------|-----------------|------------|----------|---------|----------------------|----------------|
| Analyte         | mg/l            | mg/l       |          | %       |                      | %              |
| Nitrate-Nitrite | ND              | ND         | 1        | 0.00    |                      | 20             |

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/24/15 12:29 • (LCSD) 04/24/15 12:30

|                 | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | <u>LCS Qualifier</u> | <u>LCSD Qualifier</u> | RPD  | RPD Limits |
|-----------------|--------------|------------|-------------|----------|-----------|-------------|----------------------|-----------------------|------|------------|
| Analyte         | mg/l         | mg/l       | mg/l        | %        | %         | %           |                      |                       | %    | %          |
| Nitrate-Nitrite | 5.00         | 4.95       | 5.03        | 99.0     | 101       | 90.0-110    |                      |                       | 1.60 | 20         |

L759281-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 04/24/15 12:35 • (MS) 04/24/15 12:36 • (MSD) 04/24/15 12:38

|                 | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | <u>MS Qualifier</u> | <u>MSD Qualifier</u> | RPD   | RPD Limits |
|-----------------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|---------------------|----------------------|-------|------------|
| Analyte         | mg/l         | mg/l            | mg/l      | mg/l       | %       | %        |          | %           |                     |                      | %     | %          |
| Nitrate-Nitrite | 5.00         | 2.14            | 7.36      | 7.39       | 105     | 106      | 1        | 90.0-110    |                     |                      | 0.407 | 20         |



Method Blank (MB)

(MB) 04/21/15 09:31

|         | MB Result | MB Qualifier | MB MDL  | MB RDL  |
|---------|-----------|--------------|---------|---------|
| Analyte | mg/l      |              | mg/l    | mg/l    |
| Cyanide | U         |              | 0.00180 | 0.00500 |

L759459-02 Original Sample (OS) • Duplicate (DUP)

(OS) 04/21/15 09:58 • (DUP) 04/21/15 09:59

|         | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| Analyte | mg/l            | mg/l       |          | %       |               | %              |
| Cyanide | ND              | ND         | 1        | 0.00    |               | 20             |

L759253-01 Original Sample (OS) • Duplicate (DUP)

(OS) 04/21/15 09:38 • (DUP) 04/21/15 09:39

|         | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| Analyte | mg/l            | mg/l       |          | %       |               | %              |
| Cyanide | ND              | ND         | 1        | 0.00    |               | 20             |

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/21/15 09:34 • (LCSD) 04/21/15 09:35

|         | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD  | RPD Limits |
|---------|--------------|------------|-------------|----------|-----------|-------------|---------------|----------------|------|------------|
| Analyte | mg/l         | mg/l       | mg/l        | %        | %         | %           |               |                | %    | %          |
| Cyanide | 0.100        | 0.109      | 0.105       | 109      | 105       | 90.0-110    |               |                | 3.74 | 20         |

L759253-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 04/21/15 09:41 • (MS) 04/21/15 09:42 • (MSD) 04/21/15 09:43

|         | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD  | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|------|------------|
| Analyte | mg/l         | mg/l            | mg/l      | mg/l       | %       | %        |          | %           |              |               | %    | %          |
| Cyanide | 0.200        | 0.000200        | 0.179     | 0.183      | 89.5    | 91.5     | 1        | 90.0-110    | J6           |               | 2.21 | 20         |

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) 04/20/15 12:27

| Analyte  | MB Result<br>mg/l | MB Qualifier | MB MDL<br>mg/l | MB RDL<br>mg/l |
|----------|-------------------|--------------|----------------|----------------|
| Chloride | U                 |              | 0.0519         | 1.00           |
| Fluoride | U                 |              | 0.0099         | 0.100          |
| Sulfate  | U                 |              | 0.0774         | 5.00           |

L759295-01 Original Sample (OS) • Duplicate (DUP)

(OS) 04/20/15 13:44 • (DUP) 04/20/15 13:59

| Analyte  | Original Result<br>mg/l | DUP Result<br>mg/l | Dilution | DUP RPD<br>% | DUP Qualifier | DUP RPD Limits<br>% |
|----------|-------------------------|--------------------|----------|--------------|---------------|---------------------|
| Chloride | 7.82                    | 7.83               | 1        | 0            |               | 20                  |
| Fluoride | 0.591                   | 0.590              | 1        | 0            |               | 20                  |
| Sulfate  | 22.8                    | 22.9               | 1        | 0            |               | 20                  |

L759156-01 Original Sample (OS) • Duplicate (DUP)

(OS) 04/20/15 20:07 • (DUP) 04/20/15 20:22

| Analyte  | Original Result<br>mg/l | DUP Result<br>mg/l | Dilution | DUP RPD<br>% | DUP Qualifier | DUP RPD Limits<br>% |
|----------|-------------------------|--------------------|----------|--------------|---------------|---------------------|
| Chloride | 2.96                    | 3.04               | 1        | 3            |               | 20                  |
| Fluoride | 0.234                   | 0.234              | 1        | 0            |               | 20                  |
| Sulfate  | 13.5                    | 13.6               | 1        | 0            |               | 20                  |

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/20/15 12:42 • (LCSD) 04/20/15 12:57

| Analyte  | Spike Amount<br>mg/l | LCS Result<br>mg/l | LCSD Result<br>mg/l | LCS Rec.<br>% | LCSD Rec.<br>% | Rec. Limits<br>% | LCS Qualifier | LCSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------|----------------------|--------------------|---------------------|---------------|----------------|------------------|---------------|----------------|----------|-----------------|
| Chloride | 40.0                 | 40.1               | 39.9                | 100           | 100            | 90-110           |               |                | 1        | 20              |
| Fluoride | 8.00                 | 8.10               | 8.02                | 101           | 100            | 90-110           |               |                | 1        | 20              |
| Sulfate  | 40.0                 | 40.1               | 39.7                | 100           | 99             | 90-110           |               |                | 1        | 20              |

L759081-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 04/20/15 16:18 • (MS) 04/20/15 16:33 • (MSD) 04/20/15 16:48

| Analyte  | Spike Amount<br>mg/l | Original Result<br>mg/l | MS Result<br>mg/l | MSD Result<br>mg/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Chloride | 50.0                 | 1.09                    | 49.8              | 51.8               | 97           | 101           | 1        | 80-120           |              |               | 4        | 20              |

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



L759081-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 04/20/15 16:18 • (MS) 04/20/15 16:33 • (MSD) 04/20/15 16:48

| Analyte  | Spike Amount<br>mg/l | Original Result<br>mg/l | MS Result<br>mg/l | MSD Result<br>mg/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | <u>MS Qualifier</u> | <u>MSD Qualifier</u> | RPD<br>% | RPD Limits<br>% |
|----------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|---------------------|----------------------|----------|-----------------|
| Fluoride | 5.00                 | 1.76                    | 6.42              | 6.61               | 93           | 97            | 1        | 80-120           |                     |                      | 3        | 20              |
| Sulfate  | 50.0                 | 53.2                    | 99.0              | 101                | 92           | 95            | 1        | 80-120           |                     |                      | 2        | 20              |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Method Blank (MB)

(MB) 04/21/15 09:24

| Analyte           | MB Result<br>mg/l | <u>MB Qualifier</u> | MB MDL<br>mg/l | MB RDL<br>mg/l |
|-------------------|-------------------|---------------------|----------------|----------------|
| Mercury,Dissolved | U                 |                     | 0.000049       | 0.000200       |

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/21/15 09:27 • (LCSD) 04/21/15 09:30

| Analyte           | Spike Amount<br>mg/l | LCS Result<br>mg/l | LCSD Result<br>mg/l | LCS Rec.<br>% | LCSD Rec.<br>% | Rec. Limits<br>% | <u>LCS Qualifier</u> | <u>LCSD Qualifier</u> | RPD<br>% | RPD Limits<br>% |
|-------------------|----------------------|--------------------|---------------------|---------------|----------------|------------------|----------------------|-----------------------|----------|-----------------|
| Mercury,Dissolved | 0.00300              | 0.00305            | 0.00313             | 102           | 104            | 80-120           |                      |                       | 3        | 20              |

L759281-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 04/21/15 09:32 • (MS) 04/21/15 09:35 • (MSD) 04/21/15 09:43

| Analyte           | Spike Amount<br>mg/l | Original Result<br>mg/l | MS Result<br>mg/l | MSD Result<br>mg/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | <u>MS Qualifier</u> | <u>MSD Qualifier</u> | RPD<br>% | RPD Limits<br>% |
|-------------------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|---------------------|----------------------|----------|-----------------|
| Mercury,Dissolved | 0.00300              | ND                      | 0.00315           | 0.00311            | 105          | 104           | 1        | 75-125           |                     |                      | 1        | 20              |

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) 04/27/15 08:26

|         | MB Result | MB Qualifier | MB MDL   | MB RDL   |
|---------|-----------|--------------|----------|----------|
| Analyte | mg/l      |              | mg/l     | mg/l     |
| Mercury | U         |              | 0.000049 | 0.000200 |

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/27/15 08:28 • (LCSD) 04/27/15 08:30

|         | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD | RPD Limits |
|---------|--------------|------------|-------------|----------|-----------|-------------|---------------|----------------|-----|------------|
| Analyte | mg/l         | mg/l       | mg/l        | %        | %         | %           |               |                | %   | %          |
| Mercury | 0.00300      | 0.00297    | 0.00287     | 99       | 96        | 80-120      |               |                | 3   | 20         |

L760902-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 04/27/15 08:33 • (MS) 04/27/15 08:35 • (MSD) 04/27/15 08:37

|         | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-----|------------|
| Analyte | mg/l         | mg/l            | mg/l      | mg/l       | %       | %        |          | %           |              |               | %   | %          |
| Mercury | 0.00300      | ND              | 0.00290   | 0.00282    | 97      | 94       | 1        | 75-125      |              |               | 3   | 20         |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



Method Blank (MB)

(MB) 04/23/15 12:47

| Analyte              | MB Result<br>mg/l | MB Qualifier | MB MDL<br>mg/l | MB RDL<br>mg/l |
|----------------------|-------------------|--------------|----------------|----------------|
| Aluminum,Dissolved   | 0.00723           |              | 0.002          | 0.100          |
| Arsenic,Dissolved    | U                 |              | 0.00025        | 0.00200        |
| Barium,Dissolved     | U                 |              | 0.00036        | 0.00500        |
| Boron,Dissolved      | U                 |              | 0.0015         | 0.0200         |
| Cadmium,Dissolved    | U                 |              | 0.00016        | 0.00100        |
| Calcium,Dissolved    | 0.119             |              | 0.046          | 1.00           |
| Chromium,Dissolved   | U                 |              | 0.00054        | 0.00200        |
| Copper,Dissolved     | U                 |              | 0.00052        | 0.00500        |
| Cobalt,Dissolved     | U                 |              | 0.00026        | 0.00200        |
| Iron,Dissolved       | U                 |              | 0.015          | 0.100          |
| Lead,Dissolved       | U                 |              | 0.00024        | 0.00200        |
| Manganese,Dissolved  | 0.000705          |              | 0.00025        | 0.00500        |
| Molybdenum,Dissolved | U                 |              | 0.00014        | 0.00500        |
| Nickel,Dissolved     | 0.000423          |              | 0.00035        | 0.00200        |
| Potassium,Dissolved  | 0.164             |              | 0.037          | 1.00           |
| Selenium,Dissolved   | U                 |              | 0.00038        | 0.00200        |
| Silver,Dissolved     | U                 |              | 0.00031        | 0.00200        |
| Sodium,Dissolved     | U                 |              | 0.11           | 1.00           |
| Uranium,Dissolved    | U                 |              | 0.00033        | 0.0100         |
| Zinc,Dissolved       | U                 |              | 0.00256        | 0.0250         |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/23/15 12:49 • (LCSD) 04/23/15 12:51

| Analyte             | Spike Amount<br>mg/l | LCS Result<br>mg/l | LCSD Result<br>mg/l | LCS Rec.<br>% | LCSD Rec.<br>% | Rec. Limits<br>% | LCS Qualifier | LCSD Qualifier | RPD<br>% | RPD Limits<br>% |
|---------------------|----------------------|--------------------|---------------------|---------------|----------------|------------------|---------------|----------------|----------|-----------------|
| Aluminum,Dissolved  | 5.00                 | 4.91               | 4.95                | 98            | 99             | 80-120           |               |                | 1        | 20              |
| Arsenic,Dissolved   | 0.0500               | 0.0548             | 0.0532              | 110           | 106            | 80-120           |               |                | 3        | 20              |
| Barium,Dissolved    | 0.0500               | 0.0479             | 0.0499              | 96            | 100            | 80-120           |               |                | 4        | 20              |
| Boron,Dissolved     | 0.0500               | 0.0449             | 0.0493              | 90            | 99             | 80-120           |               |                | 9        | 20              |
| Cadmium,Dissolved   | 0.0500               | 0.0528             | 0.0515              | 106           | 103            | 80-120           |               |                | 3        | 20              |
| Calcium,Dissolved   | 5.00                 | 5.03               | 4.89                | 101           | 98             | 80-120           |               |                | 3        | 20              |
| Chromium,Dissolved  | 0.0500               | 0.0494             | 0.0484              | 99            | 97             | 80-120           |               |                | 2        | 20              |
| Copper,Dissolved    | 0.0500               | 0.0522             | 0.0505              | 104           | 101            | 80-120           |               |                | 3        | 20              |
| Cobalt,Dissolved    | 0.0500               | 0.0509             | 0.0499              | 102           | 100            | 80-120           |               |                | 2        | 20              |
| Iron,Dissolved      | 5.00                 | 4.81               | 4.68                | 96            | 94             | 80-120           |               |                | 3        | 20              |
| Lead,Dissolved      | 0.0500               | 0.0503             | 0.0505              | 101           | 101            | 80-120           |               |                | 0        | 20              |
| Manganese,Dissolved | 0.0500               | 0.0493             | 0.0488              | 99            | 98             | 80-120           |               |                | 1        | 20              |



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/23/15 12:49 • (LCSD) 04/23/15 12:51

| Analyte              | Spike Amount<br>mg/l | LCS Result<br>mg/l | LCSD Result<br>mg/l | LCS Rec.<br>% | LCSD Rec.<br>% | Rec. Limits<br>% | LCS Qualifier | LCSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------------------|----------------------|--------------------|---------------------|---------------|----------------|------------------|---------------|----------------|----------|-----------------|
| Molybdenum,Dissolved | 0.0500               | 0.0499             | 0.0494              | 100           | 99             | 80-120           |               |                | 1        | 20              |
| Nickel,Dissolved     | 0.0500               | 0.0506             | 0.0486              | 101           | 97             | 80-120           |               |                | 4        | 20              |
| Potassium,Dissolved  | 5.00                 | 5.12               | 5.20                | 102           | 104            | 80-120           |               |                | 2        | 20              |
| Selenium,Dissolved   | 0.0500               | 0.0513             | 0.0536              | 103           | 107            | 80-120           |               |                | 4        | 20              |
| Silver,Dissolved     | 0.0500               | 0.0532             | 0.0524              | 106           | 105            | 80-120           |               |                | 2        | 20              |
| Sodium,Dissolved     | 5.00                 | 5.15               | 5.24                | 103           | 105            | 80-120           |               |                | 2        | 20              |
| Uranium,Dissolved    | 0.0500               | 0.0489             | 0.0490              | 98            | 98             | 80-120           |               |                | 0        | 20              |
| Zinc,Dissolved       | 0.0500               | 0.0495             | 0.0472              | 99            | 94             | 80-120           |               |                | 5        | 20              |

L759281-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 04/23/15 13:38 • (MS) 04/23/15 12:58 • (MSD) 04/23/15 13:00

| Analyte              | Spike Amount<br>mg/l | Original Result<br>mg/l | MS Result<br>mg/l | MSD Result<br>mg/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------------------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Aluminum,Dissolved   | 1.00                 | 0.0166                  | 5.42              | 5.65               | 108          | 113           | 5        | 75-125           |              |               | 4        | 20              |
| Arsenic,Dissolved    | 0.0100               | 0.00104                 | 0.0603            | 0.0628             | 119          | 124           | 5        | 75-125           |              |               | 4        | 20              |
| Barium,Dissolved     | 0.0100               | 0.0696                  | 0.125             | 0.121              | 111          | 102           | 5        | 75-125           |              |               | 4        | 20              |
| Boron,Dissolved      | 0.0100               | 0.116                   | 0.158             | 0.173              | 85           | 113           | 5        | 75-125           |              |               | 8        | 20              |
| Cadmium,Dissolved    | 0.0100               | 0.000186                | 0.0563            | 0.0596             | 112          | 119           | 5        | 75-125           |              |               | 6        | 20              |
| Calcium,Dissolved    | 1.00                 | 685                     | 706               | 726                | 146          | 535           | 5        | 75-125           | V            | V             | 3        | 20              |
| Chromium,Dissolved   | 0.0100               | ND                      | 0.0516            | 0.0540             | 103          | 108           | 5        | 75-125           |              |               | 5        | 20              |
| Copper,Dissolved     | 0.0100               | 0.0887                  | 0.0570            | 0.0586             | 0            | 0             | 5        | 75-125           | J6           | J6            | 3        | 20              |
| Cobalt,Dissolved     | 0.0100               | ND                      | 0.0544            | 0.0569             | 109          | 114           | 5        | 75-125           |              |               | 5        | 20              |
| Potassium,Dissolved  | 1.00                 | 5.48                    | 10.9              | 11.2               | 109          | 114           | 5        | 75-125           |              |               | 2        | 20              |
| Iron,Dissolved       | 1.00                 | 0.0581                  | 5.34              | 5.54               | 106          | 110           | 5        | 75-125           |              |               | 4        | 20              |
| Lead,Dissolved       | 0.0100               | 0.000124                | 0.0538            | 0.0545             | 107          | 109           | 5        | 75-125           |              |               | 1        | 20              |
| Manganese,Dissolved  | 0.0100               | 0.00244                 | 0.0541            | 0.0579             | 103          | 111           | 5        | 75-125           |              |               | 7        | 20              |
| Molybdenum,Dissolved | 0.0100               | 0.0121                  | 0.0670            | 0.0689             | 110          | 114           | 5        | 75-125           |              |               | 3        | 20              |
| Nickel,Dissolved     | 0.0100               | 0.0175                  | 0.0560            | 0.0577             | 77           | 80            | 5        | 75-125           |              |               | 3        | 20              |
| Selenium,Dissolved   | 0.0100               | 0.00808                 | 0.0630            | 0.0661             | 110          | 116           | 5        | 75-125           |              |               | 5        | 20              |
| Silver,Dissolved     | 0.0100               | 0.000273                | 0.0569            | 0.0586             | 113          | 117           | 5        | 75-125           |              |               | 3        | 20              |
| Sodium,Dissolved     | 1.00                 | 60.0                    | 67.5              | 68.7               | 151          | 175           | 5        | 75-125           | V            | V             | 2        | 20              |
| Uranium,Dissolved    | 0.0100               | 0.00546                 | 0.0598            | 0.0614             | 109          | 112           | 5        | 75-125           |              |               | 3        | 20              |
| Zinc,Dissolved       | 0.0100               | 0.0161                  | 0.0728            | 0.0720             | 114          | 112           | 5        | 75-125           |              |               | 1        | 20              |

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) 04/16/15 13:14

| Analyte                         | MB Result<br>mg/l | MB Qualifier | MB MDL<br>mg/l | MB RDL<br>mg/l |
|---------------------------------|-------------------|--------------|----------------|----------------|
| TPH (GC/FID) Low Fraction       | U                 |              | 0.0314         | 0.100          |
| (S) a,a,a-Trifluorotoluene(FID) | 91.1              |              |                | 62.0-128       |

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/16/15 10:57 • (LCSD) 04/16/15 11:19

| Analyte                         | Spike Amount<br>mg/l | LCS Result<br>mg/l | LCSD Result<br>mg/l | LCS Rec.<br>% | LCSD Rec.<br>% | Rec. Limits<br>% | LCS Qualifier | LCSD Qualifier | RPD<br>% | RPD Limits<br>% |
|---------------------------------|----------------------|--------------------|---------------------|---------------|----------------|------------------|---------------|----------------|----------|-----------------|
| TPH (GC/FID) Low Fraction       | 5.50                 | 5.02               | 5.13                | 91.3          | 93.2           | 67.0-132         |               |                | 2.00     | 20              |
| (S) a,a,a-Trifluorotoluene(FID) |                      |                    |                     | 98.0          | 98.3           | 62.0-128         |               |                |          |                 |

L757731-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 04/16/15 13:53 • (MS) 04/16/15 12:08 • (MSD) 04/16/15 12:30

| Analyte                         | Spike Amount<br>mg/l | Original Result<br>mg/l | MS Result<br>mg/l | MSD Result<br>mg/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|---------------------------------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| TPH (GC/FID) Low Fraction       | 5.50                 | ND                      | 5.13              | 5.44               | 93.3         | 98.9          | 1        | 50.0-143         |              |               | 5.84     | 20              |
| (S) a,a,a-Trifluorotoluene(FID) |                      |                         |                   |                    | 98.5         | 98.9          |          | 62.0-128         |              |               |          |                 |



Method Blank (MB)

(MB) 04/17/15 22:36

| Analyte                     | MB Result<br>mg/l | MB Qualifier | MB MDL<br>mg/l | MB RDL<br>mg/l |
|-----------------------------|-------------------|--------------|----------------|----------------|
| Acetone                     | U                 |              | 0.0100         | 0.0500         |
| Benzene                     | U                 |              | 0.000331       | 0.00100        |
| Bromodichloromethane        | U                 |              | 0.000380       | 0.00100        |
| Bromoform                   | U                 |              | 0.000469       | 0.00100        |
| Bromomethane                | U                 |              | 0.000866       | 0.00500        |
| n-Butylbenzene              | 0.000383          |              | 0.000361       | 0.00100        |
| sec-Butylbenzene            | U                 |              | 0.000365       | 0.00100        |
| Carbon disulfide            | U                 |              | 0.000275       | 0.00100        |
| Carbon tetrachloride        | U                 |              | 0.000379       | 0.00100        |
| Chlorobenzene               | U                 |              | 0.000348       | 0.00100        |
| Chlorodibromomethane        | U                 |              | 0.000327       | 0.00100        |
| Chloroethane                | U                 |              | 0.000453       | 0.00500        |
| Chloroform                  | U                 |              | 0.000324       | 0.00500        |
| Chloromethane               | U                 |              | 0.000276       | 0.00250        |
| 1,2-Dibromoethane           | U                 |              | 0.000381       | 0.00100        |
| 1,1-Dichloroethane          | U                 |              | 0.000259       | 0.00100        |
| 1,2-Dichloroethane          | U                 |              | 0.000361       | 0.00100        |
| 1,1-Dichloroethene          | U                 |              | 0.000398       | 0.00100        |
| cis-1,2-Dichloroethene      | U                 |              | 0.000260       | 0.00100        |
| trans-1,2-Dichloroethene    | U                 |              | 0.000396       | 0.00100        |
| 1,2-Dichloropropane         | U                 |              | 0.000306       | 0.00100        |
| cis-1,3-Dichloropropene     | U                 |              | 0.000418       | 0.00100        |
| trans-1,3-Dichloropropene   | U                 |              | 0.000419       | 0.00100        |
| Ethylbenzene                | U                 |              | 0.000384       | 0.00100        |
| 2-Hexanone                  | U                 |              | 0.00382        | 0.0100         |
| Isopropylbenzene            | U                 |              | 0.000326       | 0.00100        |
| p-Isopropyltoluene          | U                 |              | 0.000350       | 0.00100        |
| 2-Butanone (MEK)            | U                 |              | 0.00393        | 0.0100         |
| Methylene Chloride          | U                 |              | 0.00100        | 0.00500        |
| 4-Methyl-2-pentanone (MIBK) | U                 |              | 0.00214        | 0.0100         |
| Methyl tert-butyl ether     | U                 |              | 0.000367       | 0.00100        |
| Naphthalene                 | U                 |              | 0.00100        | 0.00500        |
| n-Propylbenzene             | U                 |              | 0.000349       | 0.00100        |
| Styrene                     | U                 |              | 0.000307       | 0.00100        |
| 1,1,1,2-Tetrachloroethane   | U                 |              | 0.000385       | 0.00100        |
| 1,1,2,2-Tetrachloroethane   | U                 |              | 0.000130       | 0.00100        |
| Tetrachloroethene           | U                 |              | 0.000372       | 0.00100        |
| Toluene                     | U                 |              | 0.000780       | 0.00500        |
| 1,1,1-Trichloroethane       | U                 |              | 0.000319       | 0.00100        |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Method Blank (MB)

(MB) 04/17/15 22:36

| Analyte                  | MB Result<br>mg/l | MB Qualifier | MB MDL<br>mg/l | MB RDL<br>mg/l |
|--------------------------|-------------------|--------------|----------------|----------------|
| 1,1,2-Trichloroethane    | U                 |              | 0.000383       | 0.00100        |
| Trichloroethene          | U                 |              | 0.000398       | 0.00100        |
| 1,2,4-Trimethylbenzene   | U                 |              | 0.000373       | 0.00100        |
| 1,3,5-Trimethylbenzene   | U                 |              | 0.000387       | 0.00100        |
| Vinyl chloride           | U                 |              | 0.000259       | 0.00100        |
| Xylenes, Total           | U                 |              | 0.00106        | 0.00300        |
| o-Xylene                 | U                 |              | 0.000341       | 0.00100        |
| m&p-Xylenes              | U                 |              | 0.000719       | 0.00200        |
| (S) Toluene-d8           | 103               |              |                | 88.5-111       |
| (S) Dibromofluoromethane | 97.4              |              |                | 78.3-121       |
| (S) 4-Bromofluorobenzene | 102               |              |                | 71.0-126       |

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/17/15 21:07 • (LCSD) 04/17/15 21:29

| Analyte                  | Spike Amount<br>mg/l | LCS Result<br>mg/l | LCSD Result<br>mg/l | LCS Rec.<br>% | LCSD Rec.<br>% | Rec. Limits<br>% | LCS Qualifier | LCSD Qualifier | RPD<br>% | RPD Limits<br>% |
|--------------------------|----------------------|--------------------|---------------------|---------------|----------------|------------------|---------------|----------------|----------|-----------------|
| Acetone                  | 0.125                | 0.116              | 0.114               | 92.5          | 91.0           | 35.6-163         |               |                | 1.60     | 23.9            |
| Benzene                  | 0.0250               | 0.0222             | 0.0246              | 88.7          | 98.4           | 74.8-121         |               |                | 10.3     | 20              |
| Bromodichloromethane     | 0.0250               | 0.0223             | 0.0246              | 89.3          | 98.3           | 75.1-116         |               |                | 9.62     | 20              |
| Bromoform                | 0.0250               | 0.0232             | 0.0247              | 93.0          | 98.6           | 67.5-130         |               |                | 5.87     | 20              |
| Bromomethane             | 0.0250               | 0.0242             | 0.0274              | 96.9          | 109            | 49.9-162         |               |                | 12.2     | 20              |
| n-Butylbenzene           | 0.0250               | 0.0242             | 0.0263              | 97.0          | 105            | 76.2-126         |               |                | 7.95     | 20              |
| sec-Butylbenzene         | 0.0250               | 0.0237             | 0.0261              | 95.0          | 105            | 74.4-127         |               |                | 9.58     | 20              |
| Carbon disulfide         | 0.0250               | 0.0232             | 0.0258              | 92.9          | 103            | 64.6-140         |               |                | 10.5     | 20              |
| Carbon tetrachloride     | 0.0250               | 0.0196             | 0.0224              | 78.2          | 89.7           | 70.2-123         |               |                | 13.7     | 20              |
| Chlorobenzene            | 0.0250               | 0.0236             | 0.0261              | 94.6          | 104            | 78.1-119         |               |                | 9.95     | 20              |
| Chlorodibromomethane     | 0.0250               | 0.0223             | 0.0240              | 89.3          | 96.0           | 74.0-121         |               |                | 7.20     | 20              |
| Chloroethane             | 0.0250               | 0.0223             | 0.0249              | 89.1          | 99.7           | 61.7-135         |               |                | 11.2     | 20              |
| Chloroform               | 0.0250               | 0.0222             | 0.0244              | 88.8          | 97.6           | 76.0-121         |               |                | 9.46     | 20              |
| Chloromethane            | 0.0250               | 0.0219             | 0.0240              | 87.5          | 95.9           | 61.5-129         |               |                | 9.19     | 20              |
| 1,2-Dibromoethane        | 0.0250               | 0.0229             | 0.0243              | 91.7          | 97.1           | 76.6-121         |               |                | 5.71     | 20              |
| 1,1-Dichloroethane       | 0.0250               | 0.0230             | 0.0255              | 91.8          | 102            | 70.7-126         |               |                | 10.5     | 20              |
| 1,2-Dichloroethane       | 0.0250               | 0.0219             | 0.0230              | 87.4          | 92.0           | 68.8-124         |               |                | 5.13     | 20              |
| 1,1-Dichloroethene       | 0.0250               | 0.0236             | 0.0267              | 94.3          | 107            | 67.8-129         |               |                | 12.6     | 20              |
| cis-1,2-Dichloroethene   | 0.0250               | 0.0227             | 0.0248              | 90.8          | 99.2           | 76.0-119         |               |                | 8.85     | 20              |
| trans-1,2-Dichloroethene | 0.0250               | 0.0235             | 0.0259              | 94.2          | 104            | 72.6-121         |               |                | 9.57     | 20              |
| 1,2-Dichloropropane      | 0.0250               | 0.0231             | 0.0252              | 92.4          | 101            | 76.5-119         |               |                | 8.62     | 20              |

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/17/15 21:07 • (LCSD) 04/17/15 21:29

| Analyte                     | Spike Amount<br>mg/l | LCS Result<br>mg/l | LCSD Result<br>mg/l | LCS Rec.<br>% | LCSD Rec.<br>% | Rec. Limits<br>% | LCS Qualifier | LCSD Qualifier | RPD<br>% | RPD Limits<br>% |
|-----------------------------|----------------------|--------------------|---------------------|---------------|----------------|------------------|---------------|----------------|----------|-----------------|
| cis-1,3-Dichloropropene     | 0.0250               | 0.0225             | 0.0243              | 90.2          | 97.4           | 78.2-120         |               |                | 7.67     | 20              |
| trans-1,3-Dichloropropene   | 0.0250               | 0.0212             | 0.0228              | 84.6          | 91.0           | 74.3-123         |               |                | 7.23     | 20              |
| Ethylbenzene                | 0.0250               | 0.0239             | 0.0269              | 95.6          | 108            | 78.8-122         |               |                | 11.8     | 20              |
| 2-Hexanone                  | 0.125                | 0.116              | 0.113               | 92.9          | 90.0           | 65.6-144         |               |                | 3.08     | 20              |
| Isopropylbenzene            | 0.0250               | 0.0237             | 0.0265              | 95.0          | 106            | 78.6-132         |               |                | 11.1     | 20              |
| p-Isopropyltoluene          | 0.0250               | 0.0236             | 0.0263              | 94.3          | 105            | 74.0-131         |               |                | 10.9     | 20              |
| 2-Butanone (MEK)            | 0.125                | 0.103              | 0.104               | 82.2          | 83.6           | 55.0-149         |               |                | 1.71     | 20              |
| Methylene Chloride          | 0.0250               | 0.0225             | 0.0240              | 89.9          | 95.9           | 70.3-120         |               |                | 6.45     | 20              |
| 4-Methyl-2-pentanone (MIBK) | 0.125                | 0.114              | 0.116               | 91.4          | 92.6           | 70.5-133         |               |                | 1.31     | 20              |
| Methyl tert-butyl ether     | 0.0250               | 0.0218             | 0.0227              | 87.4          | 91.0           | 71.2-126         |               |                | 4.03     | 20              |
| Naphthalene                 | 0.0250               | 0.0225             | 0.0239              | 90.0          | 95.7           | 68.4-128         |               |                | 6.17     | 20              |
| n-Propylbenzene             | 0.0250               | 0.0236             | 0.0264              | 94.6          | 105            | 78.2-122         |               |                | 10.9     | 20              |
| Styrene                     | 0.0250               | 0.0240             | 0.0263              | 95.8          | 105            | 80.4-126         |               |                | 9.30     | 20              |
| 1,1,1,2-Tetrachloroethane   | 0.0250               | 0.0234             | 0.0257              | 93.6          | 103            | 74.2-124         |               |                | 9.14     | 20              |
| 1,1,2,2-Tetrachloroethane   | 0.0250               | 0.0224             | 0.0240              | 89.7          | 95.9           | 70.7-122         |               |                | 6.64     | 20              |
| Tetrachloroethene           | 0.0250               | 0.0247             | 0.0278              | 99.0          | 111            | 72.6-126         |               |                | 11.8     | 20              |
| Toluene                     | 0.0250               | 0.0232             | 0.0252              | 92.7          | 101            | 79.7-116         |               |                | 8.22     | 20              |
| 1,1,1-Trichloroethane       | 0.0250               | 0.0229             | 0.0258              | 91.6          | 103            | 73.2-123         |               |                | 11.7     | 20              |
| 1,1,2-Trichloroethane       | 0.0250               | 0.0232             | 0.0242              | 92.9          | 96.7           | 77.7-118         |               |                | 3.98     | 20              |
| Trichloroethene             | 0.0250               | 0.0244             | 0.0273              | 97.4          | 109            | 77.7-118         |               |                | 11.3     | 20              |
| 1,2,4-Trimethylbenzene      | 0.0250               | 0.0233             | 0.0258              | 93.4          | 103            | 75.0-123         |               |                | 10.2     | 20              |
| 1,3,5-Trimethylbenzene      | 0.0250               | 0.0237             | 0.0261              | 94.9          | 104            | 75.6-124         |               |                | 9.42     | 20              |
| Vinyl chloride              | 0.0250               | 0.0240             | 0.0267              | 96.0          | 107            | 65.9-128         |               |                | 10.8     | 20              |
| Xylenes, Total              | 0.0750               | 0.0717             | 0.0795              | 95.6          | 106            | 78.7-121         |               |                | 10.4     | 20              |
| o-Xylene                    | 0.0250               | 0.0237             | 0.0263              | 94.9          | 105            | 77.6-122         |               |                | 10.2     | 20              |
| m&p-Xylenes                 | 0.0500               | 0.0480             | 0.0532              | 95.9          | 106            | 78.8-121         |               |                | 10.4     | 20              |
| (S) Toluene-d8              |                      |                    |                     | 102           | 103            | 88.5-111         |               |                |          |                 |
| (S) Dibromofluoromethane    |                      |                    |                     | 95.8          | 95.4           | 78.3-121         |               |                |          |                 |
| (S) 4-Bromofluorobenzene    |                      |                    |                     | 102           | 101            | 71.0-126         |               |                |          |                 |

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L759281-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 04/18/15 02:24 • (MS) 04/17/15 22:58 • (MSD) 04/17/15 23:20

| Analyte              | Spike Amount<br>mg/l | Original Result<br>mg/l | MS Result<br>mg/l | MSD Result<br>mg/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------------------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Acetone              | 0.125                | 0.00244                 | 0.0782            | 0.0873             | 60.6         | 67.9          | 1        | 10.0-130         |              |               | 11.0     | 27.9            |
| Benzene              | 0.0250               | ND                      | 0.0191            | 0.0221             | 76.3         | 88.3          | 1        | 54.3-133         |              |               | 14.6     | 20              |
| Bromodichloromethane | 0.0250               | ND                      | 0.0193            | 0.0231             | 77.2         | 92.3          | 1        | 63.9-121         |              |               | 17.8     | 20              |

L759281-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 04/18/15 02:24 • (MS) 04/17/15 22:58 • (MSD) 04/17/15 23:20

| Analyte                     | Spike Amount<br>mg/l | Original Result<br>mg/l | MS Result<br>mg/l | MSD Result<br>mg/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|-----------------------------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Bromoform                   | 0.0250               | ND                      | 0.0190            | 0.0235             | 75.9         | 93.9          | 1        | 59.5-134         |              | J3            | 21.3     | 20.5            |
| Bromomethane                | 0.0250               | ND                      | 0.0209            | 0.0244             | 83.8         | 97.7          | 1        | 41.7-155         |              |               | 15.3     | 21.9            |
| n-Butylbenzene              | 0.0250               | 0.000438                | 0.0182            | 0.0220             | 70.9         | 86.2          | 1        | 62.7-140         |              |               | 19.1     | 20.3            |
| sec-Butylbenzene            | 0.0250               | ND                      | 0.0189            | 0.0223             | 75.5         | 89.2          | 1        | 62.2-136         |              |               | 16.7     | 20.3            |
| Carbon disulfide            | 0.0250               | ND                      | 0.0188            | 0.0217             | 75.3         | 86.8          | 1        | 43.3-149         |              |               | 14.2     | 20.3            |
| Carbon tetrachloride        | 0.0250               | ND                      | 0.0164            | 0.0185             | 65.6         | 74.0          | 1        | 55.7-134         |              |               | 12.0     | 20              |
| Chlorobenzene               | 0.0250               | ND                      | 0.0196            | 0.0237             | 78.4         | 94.9          | 1        | 67.0-125         |              |               | 19.0     | 20              |
| Chlorodibromomethane        | 0.0250               | ND                      | 0.0189            | 0.0231             | 75.4         | 92.5          | 1        | 64.3-125         |              |               | 20.4     | 20.8            |
| Chloroethane                | 0.0250               | ND                      | 0.0192            | 0.0213             | 76.7         | 85.2          | 1        | 51.5-136         |              |               | 10.5     | 40              |
| Chloroform                  | 0.0250               | ND                      | 0.0194            | 0.0223             | 77.7         | 89.2          | 1        | 63.0-129         |              |               | 13.7     | 20              |
| Chloromethane               | 0.0250               | ND                      | 0.0184            | 0.0211             | 73.4         | 84.3          | 1        | 42.4-135         |              |               | 13.8     | 20              |
| 1,2-Dibromoethane           | 0.0250               | ND                      | 0.0187            | 0.0233             | 74.9         | 93.1          | 1        | 67.1-125         |              | J3            | 21.6     | 20              |
| 1,1-Dichloroethane          | 0.0250               | ND                      | 0.0197            | 0.0228             | 78.8         | 91.4          | 1        | 58.5-132         |              |               | 14.8     | 20              |
| 1,2-Dichloroethane          | 0.0250               | ND                      | 0.0188            | 0.0219             | 75.4         | 87.5          | 1        | 60.0-126         |              |               | 14.9     | 20              |
| 1,1-Dichloroethene          | 0.0250               | ND                      | 0.0196            | 0.0227             | 78.6         | 90.7          | 1        | 51.1-140         |              |               | 14.4     | 20.2            |
| cis-1,2-Dichloroethene      | 0.0250               | ND                      | 0.0193            | 0.0223             | 77.3         | 89.3          | 1        | 59.2-129         |              |               | 14.4     | 20              |
| trans-1,2-Dichloroethene    | 0.0250               | ND                      | 0.0196            | 0.0226             | 78.3         | 90.6          | 1        | 56.5-129         |              |               | 14.6     | 20              |
| 1,2-Dichloropropane         | 0.0250               | ND                      | 0.0199            | 0.0231             | 79.7         | 92.6          | 1        | 64.2-123         |              |               | 14.9     | 20              |
| cis-1,3-Dichloropropene     | 0.0250               | ND                      | 0.0195            | 0.0228             | 78.1         | 91.3          | 1        | 66.4-125         |              |               | 15.6     | 20              |
| trans-1,3-Dichloropropene   | 0.0250               | ND                      | 0.0175            | 0.0208             | 69.8         | 83.4          | 1        | 64.1-128         |              |               | 17.7     | 20              |
| Ethylbenzene                | 0.0250               | ND                      | 0.0200            | 0.0235             | 80.0         | 94.1          | 1        | 61.4-133         |              |               | 16.2     | 20              |
| 2-Hexanone                  | 0.125                | ND                      | 0.0862            | 0.104              | 69.0         | 83.2          | 1        | 43.3-137         |              |               | 18.7     | 25.5            |
| Isopropylbenzene            | 0.0250               | ND                      | 0.0192            | 0.0228             | 76.7         | 91.2          | 1        | 66.8-141         |              |               | 17.4     | 20              |
| p-Isopropyltoluene          | 0.0250               | ND                      | 0.0187            | 0.0223             | 74.6         | 89.2          | 1        | 63.2-139         |              |               | 17.9     | 20.4            |
| 2-Butanone (MEK)            | 0.125                | ND                      | 0.0774            | 0.0909             | 61.9         | 72.7          | 1        | 22.4-138         |              |               | 16.0     | 27              |
| Methylene Chloride          | 0.0250               | ND                      | 0.0193            | 0.0225             | 77.4         | 89.9          | 1        | 58.1-122         |              |               | 15.0     | 20              |
| 4-Methyl-2-pentanone (MIBK) | 0.125                | ND                      | 0.0909            | 0.106              | 72.7         | 85.1          | 1        | 60.8-140         |              |               | 15.7     | 25.1            |
| Methyl tert-butyl ether     | 0.0250               | ND                      | 0.0191            | 0.0224             | 76.2         | 89.8          | 1        | 57.7-134         |              |               | 16.4     | 20              |
| Naphthalene                 | 0.0250               | 0.000609                | 0.0170            | 0.0219             | 65.5         | 85.2          | 1        | 58.0-135         |              |               | 25.4     | 25.5            |
| n-Propylbenzene             | 0.0250               | ND                      | 0.0189            | 0.0227             | 75.7         | 90.9          | 1        | 65.9-131         |              |               | 18.2     | 20              |
| Styrene                     | 0.0250               | ND                      | 0.0198            | 0.0244             | 79.3         | 97.5          | 1        | 66.8-133         |              | J3            | 20.5     | 20              |
| 1,1,1,2-Tetrachloroethane   | 0.0250               | ND                      | 0.0201            | 0.0239             | 80.3         | 95.8          | 1        | 64.0-128         |              |               | 17.6     | 20              |
| 1,1,2,2-Tetrachloroethane   | 0.0250               | ND                      | 0.0192            | 0.0230             | 77.0         | 91.9          | 1        | 56.0-132         |              |               | 17.6     | 22.2            |
| Tetrachloroethene           | 0.0250               | ND                      | 0.0204            | 0.0237             | 81.6         | 94.8          | 1        | 53.0-139         |              |               | 14.9     | 20              |
| Toluene                     | 0.0250               | ND                      | 0.0193            | 0.0226             | 77.3         | 90.2          | 1        | 61.4-130         |              |               | 15.5     | 20              |
| 1,1,1-Trichloroethane       | 0.0250               | ND                      | 0.0192            | 0.0217             | 76.8         | 87.0          | 1        | 58.7-134         |              |               | 12.5     | 20              |
| 1,1,2-Trichloroethane       | 0.0250               | ND                      | 0.0195            | 0.0230             | 78.0         | 92.1          | 1        | 66.3-125         |              |               | 16.6     | 20              |
| Trichloroethene             | 0.0250               | ND                      | 0.0202            | 0.0228             | 80.7         | 91.4          | 1        | 44.1-149         |              |               | 12.4     | 20              |
| 1,2,4-Trimethylbenzene      | 0.0250               | ND                      | 0.0189            | 0.0230             | 75.6         | 92.1          | 1        | 57.4-137         |              |               | 19.7     | 20              |

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



L759281-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 04/18/15 02:24 • (MS) 04/17/15 22:58 • (MSD) 04/17/15 23:20

| Analyte                  | Spike Amount<br>mg/l | Original Result<br>mg/l | MS Result<br>mg/l | MSD Result<br>mg/l | MS Rec.<br>% | MSD Rec.<br>% | Dilution | Rec. Limits<br>% | MS Qualifier | MSD Qualifier | RPD<br>% | RPD Limits<br>% |
|--------------------------|----------------------|-------------------------|-------------------|--------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| 1,3,5-Trimethylbenzene   | 0.0250               | ND                      | 0.0193            | 0.0231             | 77.3         | 92.4          | 1        | 63.6-132         |              |               | 17.7     | 20.5            |
| Vinyl chloride           | 0.0250               | ND                      | 0.0198            | 0.0224             | 79.4         | 89.7          | 1        | 47.8-137         |              |               | 12.2     | 20              |
| Xylenes, Total           | 0.0750               | ND                      | 0.0595            | 0.0708             | 79.4         | 94.4          | 1        | 63.3-131         |              |               | 17.3     | 20              |
| o-Xylene                 | 0.0250               | ND                      | 0.0198            | 0.0238             | 79.1         | 95.1          | 1        | 63.3-130         |              |               | 18.4     | 20              |
| m&p-Xylenes              | 0.0500               | ND                      | 0.0398            | 0.0470             | 79.5         | 94.0          | 1        | 61.7-133         |              |               | 16.7     | 20              |
| (S) Toluene-d8           |                      |                         |                   |                    | 103          | 103           |          | 88.5-111         |              |               |          |                 |
| (S) Dibromofluoromethane |                      |                         |                   |                    | 95.3         | 95.7          |          | 78.3-121         |              |               |          |                 |
| (S) 4-Bromofluorobenzene |                      |                         |                   |                    | 102          | 103           |          | 71.0-126         |              |               |          |                 |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



Method Blank (MB)

(MB) 04/16/15 16:25

| Analyte              | MB Result<br>mg/l | MB Qualifier | MB MDL<br>mg/l | MB RDL<br>mg/l |
|----------------------|-------------------|--------------|----------------|----------------|
| C10-C28 Diesel Range | U                 |              | 0.0222         | 0.100          |
| C28-C40 Oil Range    | U                 |              | 0.0118         | 0.100          |
| (S) o-Terphenyl      | 112               |              |                | 50.0-150       |

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/16/15 16:42 • (LCSD) 04/16/15 16:59

| Analyte              | Spike Amount<br>mg/l | LCS Result<br>mg/l | LCSD Result<br>mg/l | LCS Rec.<br>% | LCSD Rec.<br>% | Rec. Limits<br>% | LCS Qualifier | LCSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------------------|----------------------|--------------------|---------------------|---------------|----------------|------------------|---------------|----------------|----------|-----------------|
| C10-C28 Diesel Range | 1.50                 | 1.33               | 1.34                | 88.9          | 89.6           | 70.0-130         |               |                | 0.780    | 20              |
| (S) o-Terphenyl      |                      |                    |                     | 60.0          | 65.9           | 50.0-150         |               |                |          |                 |



Method Blank (MB)

(MB) 04/20/15 10:05

| Analyte                  | MB Result<br>mg/l | MB Qualifier | MB MDL<br>mg/l | MB RDL<br>mg/l |
|--------------------------|-------------------|--------------|----------------|----------------|
| PCB 1260                 | U                 |              | 0.000120       | 0.000500       |
| PCB 1016                 | U                 |              | 0.000100       | 0.000500       |
| PCB 1221                 | U                 |              | 0.0000730      | 0.000500       |
| PCB 1232                 | U                 |              | 0.0000420      | 0.000500       |
| PCB 1242                 | U                 |              | 0.0000470      | 0.000500       |
| PCB 1248                 | U                 |              | 0.0000860      | 0.000500       |
| PCB 1254                 | U                 |              | 0.0000470      | 0.000500       |
| (S) Decachlorobiphenyl   | 71.2              |              |                | 10.0-156       |
| (S) Tetrachloro-m-xylene | 79.7              |              |                | 13.9-137       |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/20/15 10:17 • (LCSD) 04/20/15 10:30

| Analyte                  | Spike Amount<br>mg/l | LCS Result<br>mg/l | LCSD Result<br>mg/l | LCS Rec.<br>% | LCSD Rec.<br>% | Rec. Limits<br>% | LCS Qualifier | LCSD Qualifier | RPD<br>% | RPD Limits<br>% |
|--------------------------|----------------------|--------------------|---------------------|---------------|----------------|------------------|---------------|----------------|----------|-----------------|
| PCB 1260                 | 0.00250              | 0.00243            | 0.00238             | 97.0          | 95.1           | 47.7-149         |               |                | 2.00     | 28.8            |
| PCB 1016                 | 0.00250              | 0.00214            | 0.00213             | 85.7          | 85.3           | 24.7-128         |               |                | 0.460    | 34.9            |
| (S) Decachlorobiphenyl   |                      |                    |                     | 91.8          | 87.0           | 10.0-156         |               |                |          |                 |
| (S) Tetrachloro-m-xylene |                      |                    |                     | 80.3          | 82.3           | 13.9-137         |               |                |          |                 |

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) 04/16/15 23:56

| Analyte                     | MB Result<br>mg/l | MB Qualifier | MB MDL<br>mg/l | MB RDL<br>mg/l |
|-----------------------------|-------------------|--------------|----------------|----------------|
| Acenaphthene                | U                 |              | 0.000316       | 0.00100        |
| Acenaphthylene              | U                 |              | 0.000309       | 0.00100        |
| Acetophenone                | U                 |              | 0.00271        | 0.0100         |
| Anthracene                  | U                 |              | 0.000291       | 0.00100        |
| Atrazine                    | U                 |              | 0.00153        | 0.0100         |
| Benzaldehyde                | U                 |              | 0.00140        | 0.0100         |
| Benzo(a)anthracene          | U                 |              | 0.000111       | 0.00100        |
| Benzo(b)fluoranthene        | U                 |              | 0.0000896      | 0.00100        |
| Benzo(k)fluoranthene        | U                 |              | 0.000355       | 0.00100        |
| Benzo(g,h,i)perylene        | U                 |              | 0.000161       | 0.00100        |
| Benzo(a)pyrene              | U                 |              | 0.000340       | 0.00100        |
| Biphenyl                    | U                 |              | 0.000206       | 0.0100         |
| Bis(2-chlorethoxy)methane   | U                 |              | 0.000329       | 0.0100         |
| Bis(2-chloroethyl)ether     | U                 |              | 0.00162        | 0.0100         |
| Bis(2-chloroisopropyl)ether | U                 |              | 0.000445       | 0.0100         |
| 4-Bromophenyl-phenylether   | U                 |              | 0.000335       | 0.0100         |
| Caprolactam                 | U                 |              | 0.000583       | 0.0100         |
| Carbazole                   | U                 |              | 0.000162       | 0.0100         |
| 4-Chloroaniline             | U                 |              | 0.000382       | 0.0100         |
| 2-Chloronaphthalene         | U                 |              | 0.000330       | 0.00100        |
| 4-Chlorophenyl-phenylether  | U                 |              | 0.000303       | 0.0100         |
| Chrysene                    | U                 |              | 0.000332       | 0.00100        |
| Dibenz(a,h)anthracene       | U                 |              | 0.000279       | 0.00100        |
| Dibenzofuran                | U                 |              | 0.000338       | 0.0100         |
| 3,3-Dichlorobenzidine       | U                 |              | 0.00202        | 0.0100         |
| 2,4-Dinitrotoluene          | U                 |              | 0.00165        | 0.0100         |
| 2,6-Dinitrotoluene          | U                 |              | 0.000279       | 0.0100         |
| Fluoranthene                | U                 |              | 0.000310       | 0.00100        |
| Fluorene                    | U                 |              | 0.000323       | 0.00100        |
| Hexachlorobenzene           | U                 |              | 0.000341       | 0.00100        |
| Hexachloro-1,3-butadiene    | U                 |              | 0.000329       | 0.0100         |
| Hexachlorocyclopentadiene   | U                 |              | 0.00233        | 0.0100         |
| Hexachloroethane            | U                 |              | 0.000365       | 0.0100         |
| Indeno(1,2,3-cd)pyrene      | U                 |              | 0.000279       | 0.00100        |
| Isophorone                  | U                 |              | 0.000272       | 0.0100         |
| 1-Methylnaphthalene         | U                 |              | 0.000217       | 0.00100        |
| 2-Methylnaphthalene         | U                 |              | 0.000311       | 0.00100        |
| Naphthalene                 | U                 |              | 0.000372       | 0.00100        |
| 2-Nitroaniline              | U                 |              | 0.00190        | 0.0100         |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) 04/16/15 23:56

| Analyte                    | MB Result<br>mg/l | MB Qualifier | MB MDL<br>mg/l | MB RDL<br>mg/l |
|----------------------------|-------------------|--------------|----------------|----------------|
| 3-Nitroaniline             | U                 |              | 0.000308       | 0.0100         |
| 4-Nitroaniline             | U                 |              | 0.000349       | 0.0100         |
| Nitrobenzene               | U                 |              | 0.000367       | 0.0100         |
| n-Nitrosodiphenylamine     | U                 |              | 0.000304       | 0.0100         |
| n-Nitrosodi-n-propylamine  | U                 |              | 0.000403       | 0.0100         |
| Phenanthrene               | U                 |              | 0.000366       | 0.00100        |
| Benzylbutyl phthalate      | U                 |              | 0.000275       | 0.00300        |
| Bis(2-ethylhexyl)phthalate | 0.00173           |              | 0.000709       | 0.00300        |
| Di-n-butyl phthalate       | 0.000410          |              | 0.000266       | 0.00300        |
| Diethyl phthalate          | U                 |              | 0.000282       | 0.00300        |
| Dimethyl phthalate         | U                 |              | 0.000283       | 0.00300        |
| Di-n-octyl phthalate       | 0.000388          |              | 0.000278       | 0.00300        |
| Pyrene                     | U                 |              | 0.000330       | 0.00100        |
| 4-Chloro-3-methylphenol    | U                 |              | 0.000263       | 0.0100         |
| 2-Chlorophenol             | U                 |              | 0.000283       | 0.0100         |
| 2-Methylphenol             | U                 |              | 0.000312       | 0.0100         |
| 3&4-Methyl Phenol          | U                 |              | 0.000266       | 0.0100         |
| 2,4-Dichlorophenol         | U                 |              | 0.000284       | 0.0100         |
| 2,4-Dimethylphenol         | U                 |              | 0.000624       | 0.0100         |
| 4,6-Dinitro-2-methylphenol | U                 |              | 0.00262        | 0.0100         |
| 2,4-Dinitrophenol          | U                 |              | 0.00325        | 0.0100         |
| 2-Nitrophenol              | U                 |              | 0.000320       | 0.0100         |
| 4-Nitrophenol              | U                 |              | 0.00201        | 0.0100         |
| Pentachlorophenol          | U                 |              | 0.000313       | 0.00100        |
| Phenol                     | U                 |              | 0.000334       | 0.0100         |
| 2,4,5-Trichlorophenol      | U                 |              | 0.000236       | 0.0100         |
| 2,4,6-Trichlorophenol      | U                 |              | 0.000297       | 0.0100         |
| (S) Nitrobenzene-d5        | 65.1              |              |                | 21.8-123       |
| (S) 2-Fluorobiphenyl       | 77.9              |              |                | 29.5-131       |
| (S) p-Terphenyl-d14        | 71.5              |              |                | 29.3-137       |
| (S) Phenol-d5              | 29.8              |              |                | 5.00-70.1      |
| (S) 2-Fluorophenol         | 42.8              |              |                | 10.0-77.9      |
| (S) 2,4,6-Tribromophenol   | 67.2              |              |                | 11.2-130       |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) 04/17/15 12:52

| Analyte               | MB Result<br>mg/l | MB Qualifier | MB MDL<br>mg/l | MB RDL<br>mg/l |
|-----------------------|-------------------|--------------|----------------|----------------|
| 1,3,5-Trinitrobenzene | U                 |              | 0.00132        | 0.0100         |

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/16/15 23:10 • (LCSD) 04/16/15 23:33

| Analyte                     | Spike Amount<br>mg/l | LCS Result<br>mg/l | LCSD Result<br>mg/l | LCS Rec.<br>% | LCSD Rec.<br>% | Rec. Limits<br>% | LCS Qualifier | LCSD Qualifier | RPD<br>% | RPD Limits<br>% |
|-----------------------------|----------------------|--------------------|---------------------|---------------|----------------|------------------|---------------|----------------|----------|-----------------|
| Acenaphthene                | 0.0250               | 0.0209             | 0.0208              | 83.6          | 83.0           | 38.7-109         |               |                | 0.670    | 21.5            |
| Acenaphthylene              | 0.0250               | 0.0206             | 0.0205              | 82.3          | 82.0           | 36.0-106         |               |                | 0.330    | 21              |
| Acetophenone                | 0.0250               | 0.0173             | 0.0168              | 69.3          | 67.1           | 41.6-104         |               |                | 3.22     | 24.8            |
| Anthracene                  | 0.0250               | 0.0207             | 0.0208              | 82.7          | 83.1           | 43.6-113         |               |                | 0.520    | 18.8            |
| Atrazine                    | 0.0250               | 0.0218             | 0.0212              | 87.2          | 84.7           | 50.0-123         |               |                | 2.98     | 21.5            |
| Benzaldehyde                | 0.0250               | 0.0258             | 0.0235              | 103           | 94.0           | 11.7-132         |               |                | 9.31     | 25.2            |
| Benzo(a)anthracene          | 0.0250               | 0.0216             | 0.0213              | 86.5          | 85.3           | 51.2-112         |               |                | 1.33     | 20              |
| Benzo(b)fluoranthene        | 0.0250               | 0.0217             | 0.0216              | 86.8          | 86.3           | 47.6-111         |               |                | 0.620    | 20              |
| Benzo(k)fluoranthene        | 0.0250               | 0.0220             | 0.0201              | 88.1          | 80.4           | 49.4-114         |               |                | 9.18     | 20              |
| Benzo(g,h,i)perylene        | 0.0250               | 0.0238             | 0.0234              | 95.1          | 93.6           | 45.2-117         |               |                | 1.61     | 20              |
| Benzo(a)pyrene              | 0.0250               | 0.0216             | 0.0207              | 86.3          | 82.6           | 45.6-106         |               |                | 4.38     | 20              |
| Biphenyl                    | 0.0250               | 0.0210             | 0.0208              | 84.0          | 83.2           | 38.0-103         |               |                | 0.950    | 20.1            |
| Bis(2-chlorethoxy)methane   | 0.0250               | 0.0194             | 0.0188              | 77.5          | 75.2           | 37.2-111         |               |                | 3.11     | 24.1            |
| Bis(2-chloroethyl)ether     | 0.0250               | 0.0176             | 0.0179              | 70.3          | 71.7           | 22.6-108         |               |                | 2.07     | 27.9            |
| Bis(2-chloroisopropyl)ether | 0.0250               | 0.0207             | 0.0204              | 82.7          | 81.4           | 32.9-100         |               |                | 1.59     | 25.1            |
| 4-Bromophenyl-phenylether   | 0.0250               | 0.0206             | 0.0211              | 82.3          | 84.6           | 40.7-116         |               |                | 2.72     | 21              |
| Caprolactam                 | 0.0250               | 0.00570            | 0.00540             | 22.8          | 21.6           | 10.0-40.4        |               |                | 5.33     | 40              |
| Carbazole                   | 0.0250               | 0.0218             | 0.0213              | 87.2          | 85.1           | 49.0-110         |               |                | 2.48     | 20              |
| 4-Chloroaniline             | 0.0250               | 0.0166             | 0.0175              | 66.3          | 70.1           | 32.0-104         |               |                | 5.45     | 26.4            |
| 2-Chloronaphthalene         | 0.0250               | 0.0211             | 0.0208              | 84.3          | 83.1           | 33.6-105         |               |                | 1.45     | 23              |
| 4-Chlorophenyl-phenylether  | 0.0250               | 0.0215             | 0.0207              | 85.9          | 83.0           | 39.0-113         |               |                | 3.47     | 20.9            |
| Chrysene                    | 0.0250               | 0.0211             | 0.0203              | 84.3          | 81.3           | 54.6-120         |               |                | 3.67     | 20              |
| Dibenz(a,h)anthracene       | 0.0250               | 0.0231             | 0.0228              | 92.4          | 91.1           | 42.8-118         |               |                | 1.36     | 20              |
| Dibenzofuran                | 0.0250               | 0.0205             | 0.0206              | 81.9          | 82.3           | 42.4-105         |               |                | 0.480    | 20              |
| 3,3-Dichlorobenzidine       | 0.0250               | 0.0228             | 0.0225              | 91.3          | 90.0           | 27.2-142         |               |                | 1.48     | 22.3            |
| 2,4-Dinitrotoluene          | 0.0250               | 0.0210             | 0.0216              | 84.1          | 86.4           | 31.2-105         |               |                | 2.69     | 22              |
| 2,6-Dinitrotoluene          | 0.0250               | 0.0221             | 0.0208              | 88.4          | 83.3           | 30.6-106         |               |                | 5.84     | 23.1            |
| Fluoranthene                | 0.0250               | 0.0208             | 0.0208              | 83.3          | 83.4           | 45.9-115         |               |                | 0.0500   | 20              |
| Fluorene                    | 0.0250               | 0.0206             | 0.0208              | 82.4          | 83.2           | 41.0-112         |               |                | 0.910    | 20.2            |
| Hexachlorobenzene           | 0.0250               | 0.0207             | 0.0210              | 82.9          | 84.1           | 38.5-116         |               |                | 1.34     | 20.1            |
| Hexachloro-1,3-butadiene    | 0.0250               | 0.0176             | 0.0176              | 70.3          | 70.3           | 16.1-104         |               |                | 0.0600   | 31.2            |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/16/15 23:10 • (LCSD) 04/16/15 23:33

| Analyte                    | Spike Amount<br>mg/l | LCS Result<br>mg/l | LCSD Result<br>mg/l | LCS Rec.<br>% | LCSD Rec.<br>% | Rec. Limits<br>% | LCS Qualifier | LCSD Qualifier | RPD<br>% | RPD Limits<br>% |
|----------------------------|----------------------|--------------------|---------------------|---------------|----------------|------------------|---------------|----------------|----------|-----------------|
| Hexachlorocyclopentadiene  | 0.0250               | 0.0124             | 0.0125              | 49.5          | 49.9           | 10.0-121         |               |                | 0.810    | 27.9            |
| Hexachloroethane           | 0.0250               | 0.0176             | 0.0166              | 70.3          | 66.4           | 16.5-89.8        |               |                | 5.64     | 30.7            |
| Indeno(1,2,3-cd)pyrene     | 0.0250               | 0.0232             | 0.0233              | 92.9          | 93.1           | 45.0-116         |               |                | 0.240    | 20              |
| Isophorone                 | 0.0250               | 0.0204             | 0.0200              | 81.6          | 79.9           | 35.4-112         |               |                | 2.15     | 21.5            |
| 1-Methylnaphthalene        | 0.0250               | 0.0216             | 0.0210              | 86.2          | 84.2           | 34.7-102         |               |                | 2.44     | 24.9            |
| 2-Methylnaphthalene        | 0.0250               | 0.0191             | 0.0187              | 76.4          | 75.0           | 33.8-98.6        |               |                | 1.86     | 24.2            |
| Naphthalene                | 0.0250               | 0.0186             | 0.0181              | 74.4          | 72.6           | 32.2-101         |               |                | 2.44     | 23.8            |
| 2-Nitroaniline             | 0.0250               | 0.0198             | 0.0202              | 79.2          | 80.9           | 35.6-113         |               |                | 2.16     | 20.9            |
| 3-Nitroaniline             | 0.0250               | 0.0195             | 0.0206              | 78.1          | 82.6           | 33.6-103         |               |                | 5.58     | 21.8            |
| 4-Nitroaniline             | 0.0250               | 0.0233             | 0.0227              | 93.3          | 91.0           | 35.4-124         |               |                | 2.49     | 23.1            |
| Nitrobenzene               | 0.0250               | 0.0186             | 0.0183              | 74.3          | 73.3           | 31.4-106         |               |                | 1.34     | 25.7            |
| n-Nitrosodiphenylamine     | 0.0250               | 0.0211             | 0.0210              | 84.3          | 84.0           | 44.4-113         |               |                | 0.370    | 20              |
| n-Nitrosodi-n-propylamine  | 0.0250               | 0.0191             | 0.0191              | 76.5          | 76.2           | 33.2-106         |               |                | 0.400    | 23.7            |
| Phenanthrene               | 0.0250               | 0.0208             | 0.0210              | 83.4          | 84.0           | 46.4-113         |               |                | 0.720    | 20              |
| Benzylbutyl phthalate      | 0.0250               | 0.0208             | 0.0210              | 83.1          | 83.9           | 31.8-123         |               |                | 0.980    | 20.7            |
| Bis(2-ethylhexyl)phthalate | 0.0250               | 0.0230             | 0.0220              | 92.2          | 88.1           | 36.9-134         |               |                | 4.45     | 23.6            |
| Di-n-butyl phthalate       | 0.0250               | 0.0215             | 0.0215              | 86.0          | 85.9           | 41.8-120         |               |                | 0.200    | 20.2            |
| Diethyl phthalate          | 0.0250               | 0.0221             | 0.0217              | 88.4          | 86.8           | 36.5-129         |               |                | 1.78     | 20              |
| Dimethyl phthalate         | 0.0250               | 0.0219             | 0.0210              | 87.5          | 84.1           | 35.3-128         |               |                | 3.99     | 20.8            |
| Di-n-octyl phthalate       | 0.0250               | 0.0213             | 0.0202              | 85.3          | 80.9           | 39.7-112         |               |                | 5.19     | 21.1            |
| Pyrene                     | 0.0250               | 0.0225             | 0.0219              | 89.9          | 87.5           | 46.3-117         |               |                | 2.75     | 20              |
| 4-Chloro-3-methylphenol    | 0.0250               | 0.0190             | 0.0194              | 76.0          | 77.5           | 35.7-100         |               |                | 2.02     | 22.9            |
| 2-Chlorophenol             | 0.0250               | 0.0161             | 0.0166              | 64.6          | 66.4           | 26.2-91.5        |               |                | 2.77     | 26.5            |
| 2-Methylphenol             | 0.0250               | 0.0158             | 0.0164              | 63.2          | 65.4           | 26.4-86.9        |               |                | 3.53     | 26.5            |
| 3&4-Methyl Phenol          | 0.0250               | 0.0162             | 0.0170              | 64.6          | 67.9           | 27.9-92.0        |               |                | 4.98     | 27              |
| 2,4-Dichlorophenol         | 0.0250               | 0.0193             | 0.0191              | 77.3          | 76.6           | 31.4-103         |               |                | 0.940    | 24.9            |
| 2,4-Dimethylphenol         | 0.0250               | 0.0193             | 0.0195              | 77.1          | 78.1           | 31.9-107         |               |                | 1.32     | 25.7            |
| 4,6-Dinitro-2-methylphenol | 0.0250               | 0.0200             | 0.0194              | 80.1          | 77.8           | 18.4-148         |               |                | 2.87     | 24.4            |
| 2,4-Dinitrophenol          | 0.0250               | 0.0111             | 0.0107              | 44.6          | 42.8           | 24.2-128         |               |                | 4.14     | 20.5            |
| 2-Nitrophenol              | 0.0250               | 0.0181             | 0.0203              | 72.4          | 81.2           | 25.9-106         |               |                | 11.5     | 26.9            |
| 4-Nitrophenol              | 0.0250               | 0.00617            | 0.00872             | 24.7          | 34.9           | 10.0-52.7        |               |                | 34.2     | 40              |
| Pentachlorophenol          | 0.0250               | 0.0117             | 0.0133              | 46.8          | 53.1           | 10.0-97.4        |               |                | 12.7     | 35.1            |
| Phenol                     | 0.0250               | 0.00847            | 0.0103              | 33.9          | 41.2           | 10.0-57.9        |               |                | 19.6     | 35              |
| 2,4,5-Trichlorophenol      | 0.0250               | 0.0210             | 0.0214              | 83.9          | 85.5           | 34.9-112         |               |                | 1.94     | 23.9            |
| 2,4,6-Trichlorophenol      | 0.0250               | 0.0196             | 0.0199              | 78.6          | 79.5           | 29.8-107         |               |                | 1.13     | 24.1            |
| (S) Nitrobenzene-d5        |                      |                    |                     | 68.4          | 70.2           | 21.8-123         |               |                |          |                 |
| (S) 2-Fluorobiphenyl       |                      |                    |                     | 81.5          | 82.0           | 29.5-131         |               |                |          |                 |
| (S) p-Terphenyl-d14        |                      |                    |                     | 73.6          | 76.6           | 29.3-137         |               |                |          |                 |
| (S) Phenol-d5              |                      |                    |                     | 30.2          | 36.2           | 5.00-70.1        |               |                |          |                 |

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 04/16/15 23:10 • (LCSD) 04/16/15 23:33

| Analyte                  | Spike Amount<br>mg/l | LCS Result<br>mg/l | LCSD Result<br>mg/l | LCS Rec.<br>% | LCSD Rec.<br>% | Rec. Limits<br>% | <u>LCS Qualifier</u> | <u>LCSD Qualifier</u> | RPD<br>% | RPD Limits<br>% |
|--------------------------|----------------------|--------------------|---------------------|---------------|----------------|------------------|----------------------|-----------------------|----------|-----------------|
| (S) 2-Fluorophenol       |                      |                    |                     | 37.8          | 44.7           | 10.0-77.9        |                      |                       |          |                 |
| (S) 2,4,6-Tribromophenol |                      |                    |                     | 75.3          | 78.1           | 11.2-130         |                      |                       |          |                 |

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



## Abbreviations and Definitions

|                 |                                                                                                                                                                                                                                                                              |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SDG             | Sample Delivery Group.                                                                                                                                                                                                                                                       |
| MDL             | Method Detection Limit.                                                                                                                                                                                                                                                      |
| RDL             | Reported Detection Limit.                                                                                                                                                                                                                                                    |
| ND,U            | Not detected at the Reporting Limit (or MDL where applicable).                                                                                                                                                                                                               |
| RPD             | Relative Percent Difference.                                                                                                                                                                                                                                                 |
| (dry)           | Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].                                                                                                                                                     |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.                                                                              |
| (S)             | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| Rec.            | Recovery.                                                                                                                                                                                                                                                                    |
| SDL             | Sample Detection Limit.                                                                                                                                                                                                                                                      |
| MQL             | Method Quantitation Limit.                                                                                                                                                                                                                                                   |
| Unadj. MQL      | Unadjusted Method Quantitation Limit.                                                                                                                                                                                                                                        |

| Qualifier | Description                                                                                                                                     |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| J         | The identification of the analyte is acceptable; the reported value is an estimate.                                                             |
| J3        | The associated batch QC was outside the established quality control range for precision.                                                        |
| J6        | The sample matrix interfered with the ability to make any accurate determination; spike value is low.                                           |
| O1        | The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference. |
| V         | The sample concentration is too high to evaluate accurate spike recoveries.                                                                     |

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

## State Accreditations

|                       |             |                             |                   |
|-----------------------|-------------|-----------------------------|-------------------|
| Alabama               | 40660       | Nevada                      | TN-03-2002-34     |
| Alaska                | UST-080     | New Hampshire               | 2975              |
| Arizona               | AZ0612      | New Jersey–NELAP            | TN002             |
| Arkansas              | 88-0469     | New Mexico                  | TN00003           |
| California            | 01157CA     | New York                    | 11742             |
| Colorado              | TN00003     | North Carolina              | Env375            |
| Connecticut           | PH-0197     | North Carolina <sup>1</sup> | DW21704           |
| Florida               | E87487      | North Carolina <sup>2</sup> | 41                |
| Georgia               | NELAP       | North Dakota                | R-140             |
| Georgia <sup>1</sup>  | 923         | Ohio–VAP                    | CL0069            |
| Idaho                 | TN00003     | Oklahoma                    | 9915              |
| Illinois              | 200008      | Oregon                      | TN200002          |
| Indiana               | C-TN-01     | Pennsylvania                | 68-02979          |
| Iowa                  | 364         | Rhode Island                | 221               |
| Kansas                | E-10277     | South Carolina              | 84004             |
| Kentucky <sup>1</sup> | 90010       | South Dakota                | n/a               |
| Kentucky <sup>2</sup> | 16          | Tennessee <sup>14</sup>     | 2006              |
| Louisiana             | AI30792     | Texas                       | T 104704245-07-TX |
| Maine                 | TN0002      | Texas <sup>5</sup>          | LAB0152           |
| Maryland              | 324         | Utah                        | 6157585858        |
| Massachusetts         | M-TN003     | Vermont                     | VT2006            |
| Michigan              | 9958        | Virginia                    | 109               |
| Minnesota             | 047-999-395 | Washington                  | C1915             |
| Mississippi           | TN00003     | West Virginia               | 233               |
| Missouri              | 340         | Wisconsin                   | 9980939910        |
| Montana               | CERT0086    | Wyoming                     | A2LA              |
| Nebraska              | NE-OS-15-05 |                             |                   |

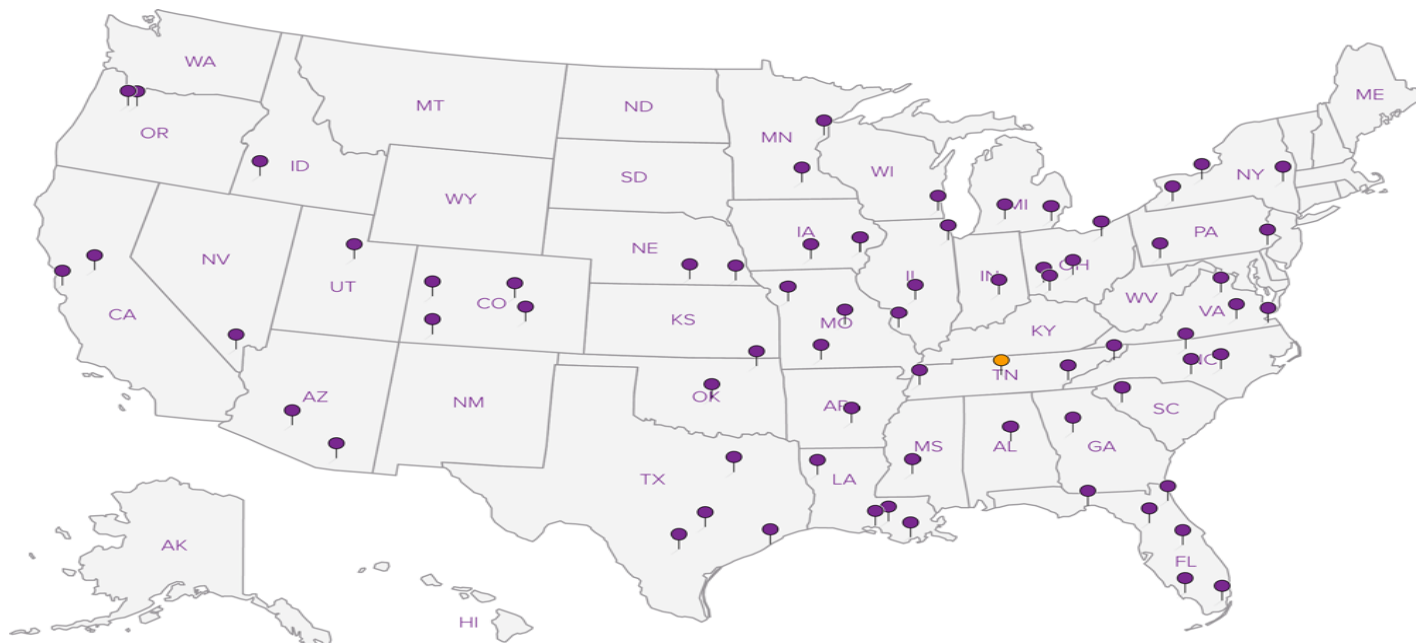
<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>n/a</sup> Accreditation not applicable

## Third Party & Federal Accreditations

|                  |         |      |         |
|------------------|---------|------|---------|
| A2LA – ISO 17025 | 1461.01 | AIHA | 100789  |
| Canada           | 1461.01 | DOD  | 1461.01 |
| EPA–Crypto       | TN00003 | USDA | S-67674 |

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



[illegible]



**Andy Vann**

---

**To:** Pam Langford; Login  
**Subject:** RE: Additional metals required L759281

**From:** Pam Langford  
**Sent:** Thursday, April 16, 2015 1:50 PM  
**To:** Andy Vann; Login  
**Subject:** Additional metals required L759281

Please add the following dissolved metals for these two samples (all ICP/MS):  
Mo, Ni, K, Se, Ag, Na, U and Zn

Also please include PCBs and change DROLVI to DROOROLVI  
Thanks!

Pamela A. Langford  
Lab Documentation Chemist  
ESC Lab Sciences  
12065 Lebanon Road  
Mt. Juliet, TN 37122  
Direct: 615-773-9687  
[plangford@esclabsciences.com](mailto:plangford@esclabsciences.com)

---

**Andy Vann**

**From:** Pam Langford  
**Sent:** Thursday, April 23, 2015 1:53 PM  
**To:** Andy Vann; Login; Sample Storage  
**Cc:** John Davis  
**Subject:** Add Total Mercury to L759281 samples -01 and -02

A container for dissolved metals was received for both samples in this SDG. The client would like to add analysis for total mercury.

We need to pull sufficient volume from a non-preserved container to perform total mercury analysis (HNO3 will be added by the metals department and the sample will be held at least 18 hours prior to performing sample digestion). Please add comments for the metals department regarding the sample prep.

Please let me know if you have additional questions.  
Thanks so much!

Pamela A. Langford  
Lab Documentation Chemist  
ESC Lab Sciences  
12065 Lebanon Road  
Mt. Juliet, TN 37122  
Direct: 615-773-9687  
[plangford@esclabsciences.com](mailto:plangford@esclabsciences.com)

---

**From:** Turner, Maisha [mailto:Maisha.Turner@arcadis-us.com]  
**Sent:** Thursday, April 23, 2015 8:56 AM  
**To:** Pam Langford  
**Subject:** RE: Table 1 - Monitoring Plan-rev1.xls

Please conduct the total mercury analysis.

---

**From:** Pam Langford [mailto:plangford@esclabsciences.com]  
**Sent:** Thursday, April 23, 2015 8:29 AM  
**To:** Turner, Maisha  
**Subject:** FW: Table 1 - Monitoring Plan-rev1.xls

Maisha,

The holding time for mercury is 28 days. The method does allow for the laboratory to add acid to bring the sample pH to <2; if this is done in the laboratory, we must hold the sample for at least 18 hours prior to digestion but we should still have ample holding time, even allotting the extra day for the lab preservation step.

Let me know if that is how you would like to proceed..

---

**From:** Turner, Maisha [mailto:Maisha.Turner@arcadis-us.com]  
**Sent:** Wednesday, April 22, 2015 4:44 PM  
**To:** Pam Langford  
**Subject:** RE: Table 1 - Monitoring Plan-rev1.xls

Will we have any hold time issues?

---

**From:** Pam Langford [<mailto:plangford@esclabsciences.com>]  
**Sent:** Wednesday, April 22, 2015 4:43 PM  
**To:** Turner, Maisha  
**Subject:** FW: Table 1 - Monitoring Plan-rev1.xls

Maisha,

We used Pam's table below to fill the bottle order and login the reject samples. We received one container for metals (which I thought was filtered in the field.)

We could probably pull some water from samples that were not field filtered or preserved and add nitric acid here in the lab (we would need to hold in the lab for at least 18 hours before analysis if this is your preference).

Just let me know how you would like for us to proceed.  
Thanks!

---

**From:** Krueger, Pamela [<mailto:pam.krueger@arcadis-us.com>]  
**Sent:** Wednesday, April 01, 2015 10:55 AM  
**To:** Pam Langford  
**Cc:** 'Ude, Scott'; Turner, Maisha  
**Subject:** RE: Table 1 - Monitoring Plan-rev1.xls

Don't think we'd added those for Scott's table. The analyses are the full WQCC list of parameters:

- GRO
- DRO
- ORO
- VOCs (WQCC list)
- SVOCs (WQCC list)
- Dissolved metals (WQCC list – al, as, ba, bo, cd, ca, cr, co, cu, fe, pb, mn, hg, mo, ni, K, se, ag, na, u, zn)
- Radium 226 & radium 228
- Cl
- Fl
- Nitrate/nitrite
- Sulfate
- Cyanide
- TDS
- PCBs

Pamela R. Krueger | Senior Project Manager | [pam.krueger@arcadis-us.com](mailto:pam.krueger@arcadis-us.com)

ARCADIS U.S., Inc. | 2929 Briarpark Dr. Suite 300 | Houston, TX 77043  
T: 713.953.4816 | M: 713.249.8548 | F: 713-977-4620  
Connect with us! [www.arcadis-us.com](http://www.arcadis-us.com) | [LinkedIn](#) | [Twitter](#) | [Facebook](#)

ARCADIS, Imagine the result

Please consider the environment before printing this email.

---

**From:** Pam Langford [<mailto:plangford@esclabsciences.com>]  
**Sent:** Wednesday, April 01, 2015 10:47 AM  
**To:** Krueger, Pamela

**Cc:** 'Ude, Scott'

**Subject:** RE: Table 1 - Monitoring Plan-rev1.xls

Pam,

I did not see the two "Reject" samples on the Monitoring Plan table, but perhaps I missed them.  
Can you verify the analysis that is requested for those two samples?

Thanks so much!

Notice: This communication and any attached files may contain privileged or other confidential information. If you have received this in error, please contact the sender immediately via reply email and immediately delete the message and any attachments without copying or disclosing the contents. Thank you.

Notice: This communication and any attached files may contain privileged or other confidential information. If you have received this in error, please contact the sender immediately via reply email and immediately delete the message and any attachments without copying or disclosing the contents. Thank you.

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Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

May 13, 2015

Scott Denton

Navajo Refining Company

P.O. Box 159

Artesia, NM 88211-0159

TEL: (575) 748-3311

FAX

RE: Monthly RO Reject

OrderNo.: 1504C23

Dear Scott Denton:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/29/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1504C23

Date Reported: 5/13/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** Temporary R.O.

**Project:** Monthly RO Reject

**Collection Date:** 4/28/2015 8:30:00 AM

**Lab ID:** 1504C23-001

**Matrix:** AQUEOUS

**Received Date:** 4/29/2015 9:15:00 AM

| Analyses                                  | Result | RL        | Qual | Units | DF  | Date Analyzed        |
|-------------------------------------------|--------|-----------|------|-------|-----|----------------------|
| <b>EPA METHOD 8011/504.1: EDB</b>         |        |           |      |       |     | Analyst: JME         |
| 1,2-Dibromoethane                         | ND     | 0.010     |      | µg/L  | 1   | 4/30/2015 5:05:45 PM |
| <b>EPA METHOD 8082: PCB'S</b>             |        |           |      |       |     | Analyst: SCC         |
| Aroclor 1016                              | ND     | 1.0       |      | µg/L  | 1   | 5/5/2015 3:05:44 PM  |
| Aroclor 1221                              | ND     | 1.0       |      | µg/L  | 1   | 5/5/2015 3:05:44 PM  |
| Aroclor 1232                              | ND     | 1.0       |      | µg/L  | 1   | 5/5/2015 3:05:44 PM  |
| Aroclor 1242                              | ND     | 1.0       |      | µg/L  | 1   | 5/5/2015 3:05:44 PM  |
| Aroclor 1248                              | ND     | 1.0       |      | µg/L  | 1   | 5/5/2015 3:05:44 PM  |
| Aroclor 1254                              | ND     | 1.0       |      | µg/L  | 1   | 5/5/2015 3:05:44 PM  |
| Aroclor 1260                              | ND     | 1.0       |      | µg/L  | 1   | 5/5/2015 3:05:44 PM  |
| Surr: Decachlorobiphenyl                  | 96.4   | 44.5-110  |      | %REC  | 1   | 5/5/2015 3:05:44 PM  |
| Surr: Tetrachloro-m-xylene                | 107    | 31.8-95.7 | S    | %REC  | 1   | 5/5/2015 3:05:44 PM  |
| <b>EPA METHOD 8015D: DIESEL RANGE</b>     |        |           |      |       |     | Analyst: KJH         |
| Diesel Range Organics (DRO)               | ND     | 1.0       |      | mg/L  | 1   | 4/29/2015 3:54:05 PM |
| Motor Oil Range Organics (MRO)            | ND     | 5.0       |      | mg/L  | 1   | 4/29/2015 3:54:05 PM |
| Surr: DNOP                                | 106    | 76.5-150  |      | %REC  | 1   | 4/29/2015 3:54:05 PM |
| <b>EPA METHOD 8015D: GASOLINE RANGE</b>   |        |           |      |       |     | Analyst: NSB         |
| Gasoline Range Organics (GRO)             | ND     | 0.050     |      | mg/L  | 1   | 5/4/2015 3:32:42 PM  |
| Surr: BFB                                 | 94.3   | 80-120    |      | %REC  | 1   | 5/4/2015 3:32:42 PM  |
| <b>EPA METHOD 8310: PAHS</b>              |        |           |      |       |     | Analyst: SCC         |
| Naphthalene                               | ND     | 2.0       |      | µg/L  | 1   | 5/5/2015 11:03:03 AM |
| 1-Methylnaphthalene                       | ND     | 2.0       |      | µg/L  | 1   | 5/5/2015 11:03:03 AM |
| 2-Methylnaphthalene                       | ND     | 2.0       |      | µg/L  | 1   | 5/5/2015 11:03:03 AM |
| Benzo(a)pyrene                            | ND     | 0.070     |      | µg/L  | 1   | 5/5/2015 11:03:03 AM |
| Surr: Benzo(e)pyrene                      | 94.8   | 30.8-125  |      | %REC  | 1   | 5/5/2015 11:03:03 AM |
| <b>EPA METHOD 300.0: ANIONS</b>           |        |           |      |       |     | Analyst: LGT         |
| Fluoride                                  | 2.9    | 2.0       |      | mg/L  | 20  | 4/29/2015 3:12:59 PM |
| Chloride                                  | 52     | 10        |      | mg/L  | 20  | 4/29/2015 3:12:59 PM |
| Nitrogen, Nitrate (As N)                  | 2.1    | 2.0       |      | mg/L  | 20  | 4/29/2015 3:12:59 PM |
| Sulfate                                   | 1500   | 50        |      | mg/L  | 100 | 5/6/2015 12:47:21 AM |
| <b>EPA METHOD 200.7: DISSOLVED METALS</b> |        |           |      |       |     | Analyst: JLF         |
| Aluminum                                  | ND     | 0.020     |      | mg/L  | 1   | 4/29/2015 6:12:35 PM |
| Barium                                    | 0.062  | 0.0020    |      | mg/L  | 1   | 4/29/2015 6:12:35 PM |
| Boron                                     | 0.10   | 0.040     |      | mg/L  | 1   | 4/29/2015 6:12:35 PM |
| Cadmium                                   | ND     | 0.0020    |      | mg/L  | 1   | 4/30/2015 1:03:21 PM |
| Chromium                                  | ND     | 0.0060    |      | mg/L  | 1   | 4/29/2015 6:12:35 PM |
| Cobalt                                    | ND     | 0.0060    |      | mg/L  | 1   | 4/29/2015 6:12:35 PM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1504C23

Date Reported: 5/13/2015

CLIENT: Navajo Refining Company

Client Sample ID: Temporary R.O.

Project: Monthly RO Reject

Collection Date: 4/28/2015 8:30:00 AM

Lab ID: 1504C23-001

Matrix: AQUEOUS

Received Date: 4/29/2015 9:15:00 AM

| Analyses                                  | Result | RL      | Qual | Units | DF | Date Analyzed        |
|-------------------------------------------|--------|---------|------|-------|----|----------------------|
| <b>EPA METHOD 200.7: DISSOLVED METALS</b> |        |         |      |       |    | Analyst: JLF         |
| Copper                                    | ND     | 0.0060  |      | mg/L  | 1  | 4/29/2015 6:12:35 PM |
| Iron                                      | ND     | 0.020   |      | mg/L  | 1  | 4/29/2015 6:12:35 PM |
| Manganese                                 | ND     | 0.0020  |      | mg/L  | 1  | 4/29/2015 6:12:35 PM |
| Molybdenum                                | ND     | 0.0080  |      | mg/L  | 1  | 4/30/2015 1:03:21 PM |
| Nickel                                    | ND     | 0.010   |      | mg/L  | 1  | 4/29/2015 6:12:35 PM |
| Silver                                    | ND     | 0.0050  |      | mg/L  | 1  | 4/30/2015 1:03:21 PM |
| Zinc                                      | 0.11   | 0.010   |      | mg/L  | 1  | 4/29/2015 6:12:35 PM |
| <b>EPA 200.8: DISSOLVED METALS</b>        |        |         |      |       |    | Analyst: DBD         |
| Arsenic                                   | ND     | 0.0050  |      | mg/L  | 5  | 5/7/2015 2:26:28 PM  |
| Lead                                      | ND     | 0.0010  |      | mg/L  | 1  | 5/5/2015 11:01:02 AM |
| Selenium                                  | 0.0088 | 0.0010  |      | mg/L  | 1  | 5/5/2015 11:01:02 AM |
| Uranium                                   | 0.0066 | 0.0010  |      | mg/L  | 1  | 5/5/2015 11:01:02 AM |
| <b>EPA METHOD 245.1: MERCURY</b>          |        |         |      |       |    | Analyst: MED         |
| Mercury                                   | ND     | 0.00020 |      | mg/L  | 1  | 5/4/2015 2:00:03 PM  |
| <b>EPA METHOD 8260B: VOLATILES</b>        |        |         |      |       |    | Analyst: cadg        |
| Benzene                                   | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| Toluene                                   | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| Ethylbenzene                              | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| 1,2-Dichloroethane (EDC)                  | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| 1,2-Dibromoethane (EDB)                   | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| Carbon Tetrachloride                      | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| Chloroform                                | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| 1,1-Dichloroethane                        | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| 1,1-Dichloroethene                        | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| Methylene Chloride                        | ND     | 3.0     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| 1,1,2,2-Tetrachloroethane                 | ND     | 2.0     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| Tetrachloroethene (PCE)                   | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| 1,1,1-Trichloroethane                     | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| 1,1,2-Trichloroethane                     | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| Trichloroethene (TCE)                     | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| Vinyl chloride                            | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| Xylenes, Total                            | ND     | 1.5     |      | µg/L  | 1  | 4/29/2015 5:03:52 PM |
| Surr: 1,2-Dichloroethane-d4               | 92.3   | 70-130  |      | %REC  | 1  | 4/29/2015 5:03:52 PM |
| Surr: 4-Bromofluorobenzene                | 91.6   | 70-130  |      | %REC  | 1  | 4/29/2015 5:03:52 PM |
| Surr: Dibromofluoromethane                | 98.8   | 70-130  |      | %REC  | 1  | 4/29/2015 5:03:52 PM |
| Surr: Toluene-d8                          | 102    | 70-130  |      | %REC  | 1  | 4/29/2015 5:03:52 PM |

**TOTAL PHENOLICS BY SW-846 9067**

Analyst: SCC

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1504C23

Date Reported: 5/13/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** Temporary R.O.

**Project:** Monthly RO Reject

**Collection Date:** 4/28/2015 8:30:00 AM

**Lab ID:** 1504C23-001

**Matrix:** AQUEOUS

**Received Date:** 4/29/2015 9:15:00 AM

| Analyses                                   | Result | RL     | Qual | Units    | DF | Date Analyzed       |
|--------------------------------------------|--------|--------|------|----------|----|---------------------|
| <b>TOTAL PHENOLICS BY SW-846 9067</b>      |        |        |      |          |    | Analyst: <b>SCC</b> |
| Phenolics, Total Recoverable               | ND     | 2.5    |      | µg/L     | 1  | 4/30/2015           |
| <b>EPA 335.4: TOTAL CYANIDE SUBBED</b>     |        |        |      |          |    | Analyst: <b>SUB</b> |
| Cyanide                                    | ND     | 0.0100 |      | mg/L     | 1  | 5/5/2015            |
| <b>SM4500-H+B: PH</b>                      |        |        |      |          |    | Analyst: <b>JRR</b> |
| pH                                         | 7.92   | 1.68   | H    | pH units | 1  | 5/5/2015 5:53:07 PM |
| <b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b> |        |        |      |          |    | Analyst: <b>KS</b>  |
| Total Dissolved Solids                     | 3390   | 20.0   | *    | mg/L     | 1  | 5/1/2015 3:30:00 PM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1504C23

Date Reported: 5/13/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** Trip Blank

**Project:** Monthly RO Reject

**Collection Date:**

**Lab ID:** 1504C23-002

**Matrix:** TRIP BLANK

**Received Date:** 4/29/2015 9:15:00 AM

| Analyses                           | Result | RL     | Qual | Units | DF | Date Analyzed        |
|------------------------------------|--------|--------|------|-------|----|----------------------|
| <b>EPA METHOD 8011/504.1: EDB</b>  |        |        |      |       |    | Analyst: JME         |
| 1,2-Dibromoethane                  | ND     | 0.010  |      | µg/L  | 1  | 4/30/2015 5:19:35 PM |
| <b>EPA METHOD 8260B: VOLATILES</b> |        |        |      |       |    | Analyst: cadg        |
| Benzene                            | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| Toluene                            | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| Ethylbenzene                       | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| 1,2-Dichloroethane (EDC)           | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| 1,2-Dibromoethane (EDB)            | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| Carbon Tetrachloride               | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| Chloroform                         | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| 1,1-Dichloroethane                 | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| 1,1-Dichloroethene                 | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| Methylene Chloride                 | ND     | 3.0    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| 1,1,2,2-Tetrachloroethane          | ND     | 2.0    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| Tetrachloroethene (PCE)            | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| 1,1,1-Trichloroethane              | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| 1,1,2-Trichloroethane              | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| Trichloroethene (TCE)              | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| Vinyl chloride                     | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| Xylenes, Total                     | ND     | 1.5    |      | µg/L  | 1  | 4/29/2015 5:32:34 PM |
| Surr: 1,2-Dichloroethane-d4        | 96.6   | 70-130 |      | %REC  | 1  | 4/29/2015 5:32:34 PM |
| Surr: 4-Bromofluorobenzene         | 103    | 70-130 |      | %REC  | 1  | 4/29/2015 5:32:34 PM |
| Surr: Dibromofluoromethane         | 103    | 70-130 |      | %REC  | 1  | 4/29/2015 5:32:34 PM |
| Surr: Toluene-d8                   | 104    | 70-130 |      | %REC  | 1  | 4/29/2015 5:32:34 PM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 1504C23

Pace Project No.: 30147056

Sample: 1504C23-001H Temporary R.O. Lab ID: 30147056001 Collected: 04/28/15 08:30 Received: 05/01/15 09:35 Matrix: Water

PWS: Site ID: Sample Type:

| Parameters | Method    | Act ± Unc (MDC) Carr Trac            | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|--------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.41 ± 0.654 (0.675)<br>C:NA T:80%   | pCi/L | 05/13/15 10:06 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 0.441 ± 0.439 (0.877)<br>C:75% T:74% | pCi/L | 05/11/15 17:31 | 15262-20-1 |      |

## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, Inc..

## QUALITY CONTROL - RADIOCHEMISTRY

Project: 1504C23  
Pace Project No.: 30147056

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|                         |             |                       |                  |
|-------------------------|-------------|-----------------------|------------------|
| QC Batch:               | RADC/24384  | Analysis Method:      | EPA 904.0        |
| QC Batch Method:        | EPA 904.0   | Analysis Description: | 904.0 Radium 228 |
| Associated Lab Samples: | 30147056001 |                       |                  |

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|                         |             |         |       |
|-------------------------|-------------|---------|-------|
| METHOD BLANK:           | 890250      | Matrix: | Water |
| Associated Lab Samples: | 30147056001 |         |       |

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| Parameter  | Act ± Unc (MDC) Carr Trac         | Units | Analyzed       | Qualifiers |
|------------|-----------------------------------|-------|----------------|------------|
| Radium-228 | 0.437 ± 0.426 (0.869) C:70% T:70% | pCi/L | 05/11/15 17:33 |            |

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL - RADIOCHEMISTRY

Project: 1504C23  
Pace Project No.: 30147056

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|                         |             |                       |                  |
|-------------------------|-------------|-----------------------|------------------|
| QC Batch:               | RADC/24322  | Analysis Method:      | EPA 903.1        |
| QC Batch Method:        | EPA 903.1   | Analysis Description: | 903.1 Radium-226 |
| Associated Lab Samples: | 30147056001 |                       |                  |

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|                         |             |         |       |
|-------------------------|-------------|---------|-------|
| METHOD BLANK:           | 888781      | Matrix: | Water |
| Associated Lab Samples: | 30147056001 |         |       |

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| Parameter  | Act ± Unc (MDC) Carr Trac        | Units | Analyzed       | Qualifiers |
|------------|----------------------------------|-------|----------------|------------|
| Radium-226 | 0.256 ± 0.438 (0.767) C:NA T:98% | pCi/L | 05/13/15 09:55 |            |

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

## REPORT OF LABORATORY ANALYSIS

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C23

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |            |        |                                 |             |      |                                                     |           |                    |          |      |
|------------|------------|--------|---------------------------------|-------------|------|-----------------------------------------------------|-----------|--------------------|----------|------|
| Sample ID  | <b>MB</b>  |        | SampType: <b>MBLK</b>           |             |      | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |           |                    |          |      |
| Client ID: | <b>PBW</b> |        | Batch ID: <b>R25851</b>         |             |      | RunNo: <b>25851</b>                                 |           |                    |          |      |
| Prep Date: |            |        | Analysis Date: <b>4/29/2015</b> |             |      | SeqNo: <b>766029</b>                                |           | Units: <b>mg/L</b> |          |      |
| Analyte    | Result     | PQL    | SPK value                       | SPK Ref Val | %REC | LowLimit                                            | HighLimit | %RPD               | RPDLimit | Qual |
| Aluminum   | ND         | 0.020  |                                 |             |      |                                                     |           |                    |          |      |
| Barium     | ND         | 0.0020 |                                 |             |      |                                                     |           |                    |          |      |
| Boron      | ND         | 0.040  |                                 |             |      |                                                     |           |                    |          |      |
| Chromium   | ND         | 0.0060 |                                 |             |      |                                                     |           |                    |          |      |
| Cobalt     | ND         | 0.0060 |                                 |             |      |                                                     |           |                    |          |      |
| Copper     | ND         | 0.0060 |                                 |             |      |                                                     |           |                    |          |      |
| Iron       | ND         | 0.020  |                                 |             |      |                                                     |           |                    |          |      |
| Manganese  | ND         | 0.0020 |                                 |             |      |                                                     |           |                    |          |      |
| Nickel     | ND         | 0.010  |                                 |             |      |                                                     |           |                    |          |      |
| Zinc       | ND         | 0.010  |                                 |             |      |                                                     |           |                    |          |      |

|            |             |        |                                 |             |      |                                                     |           |                    |          |      |
|------------|-------------|--------|---------------------------------|-------------|------|-----------------------------------------------------|-----------|--------------------|----------|------|
| Sample ID  | <b>LCS</b>  |        | SampType: <b>LCS</b>            |             |      | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |           |                    |          |      |
| Client ID: | <b>LCSW</b> |        | Batch ID: <b>R25851</b>         |             |      | RunNo: <b>25851</b>                                 |           |                    |          |      |
| Prep Date: |             |        | Analysis Date: <b>4/29/2015</b> |             |      | SeqNo: <b>766030</b>                                |           | Units: <b>mg/L</b> |          |      |
| Analyte    | Result      | PQL    | SPK value                       | SPK Ref Val | %REC | LowLimit                                            | HighLimit | %RPD               | RPDLimit | Qual |
| Aluminum   | 0.51        | 0.020  | 0.5000                          | 0           | 103  | 85                                                  | 115       |                    |          |      |
| Barium     | 0.47        | 0.0020 | 0.5000                          | 0           | 93.0 | 85                                                  | 115       |                    |          |      |
| Boron      | 0.49        | 0.040  | 0.5000                          | 0           | 97.9 | 85                                                  | 115       |                    |          |      |
| Chromium   | 0.48        | 0.0060 | 0.5000                          | 0           | 95.5 | 85                                                  | 115       |                    |          |      |
| Cobalt     | 0.47        | 0.0060 | 0.5000                          | 0           | 94.4 | 85                                                  | 115       |                    |          |      |
| Copper     | 0.47        | 0.0060 | 0.5000                          | 0           | 94.3 | 85                                                  | 115       |                    |          |      |
| Iron       | 0.47        | 0.020  | 0.5000                          | 0           | 94.6 | 85                                                  | 115       |                    |          |      |
| Manganese  | 0.44        | 0.0020 | 0.5000                          | 0           | 88.9 | 85                                                  | 115       |                    |          |      |
| Nickel     | 0.48        | 0.010  | 0.5000                          | 0           | 96.6 | 85                                                  | 115       |                    |          |      |
| Zinc       | 0.48        | 0.010  | 0.5000                          | 0           | 95.6 | 85                                                  | 115       |                    |          |      |

|            |            |        |                                 |             |      |                                                     |           |                    |          |      |
|------------|------------|--------|---------------------------------|-------------|------|-----------------------------------------------------|-----------|--------------------|----------|------|
| Sample ID  | <b>MB</b>  |        | SampType: <b>MBLK</b>           |             |      | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |           |                    |          |      |
| Client ID: | <b>PBW</b> |        | Batch ID: <b>R25881</b>         |             |      | RunNo: <b>25881</b>                                 |           |                    |          |      |
| Prep Date: |            |        | Analysis Date: <b>4/30/2015</b> |             |      | SeqNo: <b>767040</b>                                |           | Units: <b>mg/L</b> |          |      |
| Analyte    | Result     | PQL    | SPK value                       | SPK Ref Val | %REC | LowLimit                                            | HighLimit | %RPD               | RPDLimit | Qual |
| Cadmium    | ND         | 0.0020 |                                 |             |      |                                                     |           |                    |          |      |
| Molybdenum | ND         | 0.0080 |                                 |             |      |                                                     |           |                    |          |      |
| Silver     | ND         | 0.0050 |                                 |             |      |                                                     |           |                    |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C23

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |        |                          |           |             |                                              |          |             |      |          |      |
|------------|--------|--------------------------|-----------|-------------|----------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    | SampType: LCS            |           |             | TestCode: EPA Method 200.7: Dissolved Metals |          |             |      |          |      |
| Client ID: | LCSW   | Batch ID: R25881         |           |             | RunNo: 25881                                 |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 4/30/2015 |           |             | SeqNo: 767041                                |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                      | SPK value | SPK Ref Val | %REC                                         | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cadmium    | 0.51   | 0.0020                   | 0.5000    | 0           | 103                                          | 85       | 115         |      |          |      |
| Molybdenum | 0.49   | 0.0080                   | 0.5000    | 0           | 97.4                                         | 85       | 115         |      |          |      |
| Silver     | 0.088  | 0.0050                   | 0.1000    | 0           | 87.9                                         | 85       | 115         |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
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O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C23

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |        |        |                         |             |                                       |          |             |      |          |      |
|------------|--------|--------|-------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |        | SampType: LCS           |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | LCSW   |        | Batch ID: R25950        |             | RunNo: 25950                          |          |             |      |          |      |
| Prep Date: |        |        | Analysis Date: 5/5/2015 |             | SeqNo: 769414                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL    | SPK value               | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | 0.024  | 0.0010 | 0.02500                 | 0           | 96.4                                  | 85       | 115         |      |          |      |
| Selenium   | 0.024  | 0.0010 | 0.02500                 | 0           | 94.9                                  | 85       | 115         |      |          |      |
| Uranium    | 0.025  | 0.0010 | 0.02500                 | 0           | 98.7                                  | 85       | 115         |      |          |      |

|            |        |                         |           |             |                                       |          |             |      |          |      |
|------------|--------|-------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK          |           |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R25950        |           |             | RunNo: 25950                          |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 5/5/2015 |           |             | SeqNo: 769415                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                     | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | ND     | 0.0010                  |           |             |                                       |          |             |      |          |      |
| Selenium   | ND     | 0.0010                  |           |             |                                       |          |             |      |          |      |
| Uranium    | ND     | 0.0010                  |           |             |                                       |          |             |      |          |      |

|            |        |        |                         |             |                                       |          |             |      |          |      |
|------------|--------|--------|-------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |        | SampType: LCS           |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | LCSW   |        | Batch ID: R26042        |             | RunNo: 26042                          |          |             |      |          |      |
| Prep Date: |        |        | Analysis Date: 5/7/2015 |             | SeqNo: 772040                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL    | SPK value               | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Arsenic    | 0.024  | 0.0010 | 0.02500                 | 0           | 97.4                                  | 85       | 115         |      |          |      |

|            |        |                         |           |             |                                       |          |             |      |          |      |
|------------|--------|-------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK          |           |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R26042        |           |             | RunNo: 26042                          |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 5/7/2015 |           |             | SeqNo: 772041                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                     | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Arsenic    | ND     | 0.0010                  |           |             |                                       |          |             |      |          |      |

### Qualifiers:

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S Spike Recovery outside accepted recovery limits

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ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C23

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |           |                |           |             |                           |          |           |      |          |      |
|------------|-----------|----------------|-----------|-------------|---------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB-18982  | SampType:      | MBLK      | TestCode:   | EPA Method 245.1: Mercury |          |           |      |          |      |
| Client ID: | PBW       | Batch ID:      | 18982     | RunNo:      | 25930                     |          |           |      |          |      |
| Prep Date: | 4/30/2015 | Analysis Date: | 5/4/2015  | SeqNo:      | 768647                    | Units:   | mg/L      |      |          |      |
| Analyte    | Result    | PQL            | SPK value | SPK Ref Val | %REC                      | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | ND        | 0.00020        |           |             |                           |          |           |      |          |      |

|            |           |                |           |             |                           |          |           |      |          |      |
|------------|-----------|----------------|-----------|-------------|---------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS-18982 | SampType:      | LCS       | TestCode:   | EPA Method 245.1: Mercury |          |           |      |          |      |
| Client ID: | LCSW      | Batch ID:      | 18982     | RunNo:      | 25930                     |          |           |      |          |      |
| Prep Date: | 4/30/2015 | Analysis Date: | 5/4/2015  | SeqNo:      | 768648                    | Units:   | mg/L      |      |          |      |
| Analyte    | Result    | PQL            | SPK value | SPK Ref Val | %REC                      | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | 0.0051    | 0.00020        | 0.005000  | 0           | 102                       | 80       | 120       |      |          |      |

### Qualifiers:

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R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C23

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                          |        |                |           |             |                          |          |           |      |          |      |
|--------------------------|--------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID                | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID:               | PBW    | Batch ID:      | R25872    | RunNo:      | 25872                    |          |           |      |          |      |
| Prep Date:               |        | Analysis Date: | 4/29/2015 | SeqNo:      | 766806                   | Units:   | mg/L      |      |          |      |
| Analyte                  | Result | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride                 | ND     | 0.10           |           |             |                          |          |           |      |          |      |
| Chloride                 | ND     | 0.50           |           |             |                          |          |           |      |          |      |
| Nitrogen, Nitrate (As N) | ND     | 0.10           |           |             |                          |          |           |      |          |      |

|                          |        |                |           |             |                          |          |           |      |          |      |
|--------------------------|--------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID                | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID:               | LCSW   | Batch ID:      | R25872    | RunNo:      | 25872                    |          |           |      |          |      |
| Prep Date:               |        | Analysis Date: | 4/29/2015 | SeqNo:      | 766807                   | Units:   | mg/L      |      |          |      |
| Analyte                  | Result | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride                 | 0.46   | 0.10           | 0.5000    | 0           | 92.4                     | 90       | 110       |      |          |      |
| Chloride                 | 4.5    | 0.50           | 5.000     | 0           | 91.0                     | 90       | 110       |      |          |      |
| Nitrogen, Nitrate (As N) | 2.4    | 0.10           | 2.500     | 0           | 96.2                     | 90       | 110       |      |          |      |

|            |        |                |           |             |                          |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R25994    | RunNo:      | 25994                    |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 5/5/2015  | SeqNo:      | 770620                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Sulfate    | ND     | 0.50           |           |             |                          |          |           |      |          |      |

|            |        |                |           |             |                          |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | R25994    | RunNo:      | 25994                    |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 5/5/2015  | SeqNo:      | 770621                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Sulfate    | 9.7    | 0.50           | 10.00     | 0           | 97.2                     | 90       | 110       |      |          |      |

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S Spike Recovery outside accepted recovery limits

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ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C23

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                   |           |       |                |             |      |           |                            |      |             |      |  |
|-------------------|-----------|-------|----------------|-------------|------|-----------|----------------------------|------|-------------|------|--|
| Sample ID         | MB-18974  |       | SampType:      | MBLK        |      | TestCode: | EPA Method 8011/504.1: EDB |      |             |      |  |
| Client ID:        | PBW       |       | Batch ID:      | 18974       |      | RunNo:    | 25898                      |      |             |      |  |
| Prep Date:        | 4/30/2015 |       | Analysis Date: | 4/30/2015   |      | SeqNo:    | 767691                     |      | Units: µg/L |      |  |
| Analyte           | Result    | PQL   | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                  | %RPD | RPDLimit    | Qual |  |
| 1,2-Dibromoethane | ND        | 0.010 |                |             |      |           |                            |      |             |      |  |

|                   |           |       |                          |             |                                      |          |             |      |          |      |
|-------------------|-----------|-------|--------------------------|-------------|--------------------------------------|----------|-------------|------|----------|------|
| Sample ID         | LCS-18974 |       | SampType: LCS            |             | TestCode: EPA Method 8011/504.1: EDB |          |             |      |          |      |
| Client ID:        | LCSW      |       | Batch ID: 18974          |             | RunNo: 25898                         |          |             |      |          |      |
| Prep Date:        | 4/30/2015 |       | Analysis Date: 4/30/2015 |             | SeqNo: 767692                        |          | Units: µg/L |      |          |      |
| Analyte           | Result    | PQL   | SPK value                | SPK Ref Val | %REC                                 | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | 0.11      | 0.010 | 0.1000                   | 0           | 114                                  | 70       | 130         |      |          |      |

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# QC SUMMARY REPORT

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WO#: 1504C23

13-May-15

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|                                |                  |     |                                 |             |                                                 |          |                    |      |          |      |
|--------------------------------|------------------|-----|---------------------------------|-------------|-------------------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                      | <b>MB-18947</b>  |     | SampType: <b>MBLK</b>           |             | TestCode: <b>EPA Method 8015D: Diesel Range</b> |          |                    |      |          |      |
| Client ID:                     | <b>PBW</b>       |     | Batch ID: <b>18947</b>          |             | RunNo: <b>25835</b>                             |          |                    |      |          |      |
| Prep Date:                     | <b>4/29/2015</b> |     | Analysis Date: <b>4/29/2015</b> |             | SeqNo: <b>766304</b>                            |          | Units: <b>mg/L</b> |      |          |      |
| Analyte                        | Result           | PQL | SPK value                       | SPK Ref Val | %REC                                            | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND               | 1.0 |                                 |             |                                                 |          |                    |      |          |      |
| Motor Oil Range Organics (MRO) | ND               | 5.0 |                                 |             |                                                 |          |                    |      |          |      |
| Surr: DNOP                     | 1.1              |     | 1.000                           |             | 109                                             | 76.5     | 150                |      |          |      |

|                             |                  |     |                                 |             |                                                 |          |                    |      |          |      |
|-----------------------------|------------------|-----|---------------------------------|-------------|-------------------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                   | <b>LCS-18947</b> |     | SampType: <b>LCS</b>            |             | TestCode: <b>EPA Method 8015D: Diesel Range</b> |          |                    |      |          |      |
| Client ID:                  | <b>LCSW</b>      |     | Batch ID: <b>18947</b>          |             | RunNo: <b>25835</b>                             |          |                    |      |          |      |
| Prep Date:                  | <b>4/29/2015</b> |     | Analysis Date: <b>4/29/2015</b> |             | SeqNo: <b>766305</b>                            |          | Units: <b>mg/L</b> |      |          |      |
| Analyte                     | Result           | PQL | SPK value                       | SPK Ref Val | %REC                                            | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 5.2              | 1.0 | 5.000                           | 0           | 104                                             | 60.1     | 156                |      |          |      |
| Surr: DNOP                  | 0.57             |     | 0.5000                          |             | 115                                             | 76.5     | 150                |      |          |      |

|                             |                       |     |                                 |             |                                                 |          |                    |      |          |      |
|-----------------------------|-----------------------|-----|---------------------------------|-------------|-------------------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                   | <b>1504C23-001LMS</b> |     | SampType: <b>MS</b>             |             | TestCode: <b>EPA Method 8015D: Diesel Range</b> |          |                    |      |          |      |
| Client ID:                  | <b>Temporary R.O.</b> |     | Batch ID: <b>18947</b>          |             | RunNo: <b>25835</b>                             |          |                    |      |          |      |
| Prep Date:                  | <b>4/29/2015</b>      |     | Analysis Date: <b>4/29/2015</b> |             | SeqNo: <b>766307</b>                            |          | Units: <b>mg/L</b> |      |          |      |
| Analyte                     | Result                | PQL | SPK value                       | SPK Ref Val | %REC                                            | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 5.7                   | 1.0 | 5.000                           | 0           | 114                                             | 75.9     | 164                |      |          |      |
| Surr: DNOP                  | 0.61                  |     | 0.5000                          |             | 121                                             | 76.5     | 150                |      |          |      |

|                             |                        |     |                                 |             |                                                 |          |                    |      |          |      |
|-----------------------------|------------------------|-----|---------------------------------|-------------|-------------------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                   | <b>1504C23-001LMSD</b> |     | SampType: <b>MSD</b>            |             | TestCode: <b>EPA Method 8015D: Diesel Range</b> |          |                    |      |          |      |
| Client ID:                  | <b>Temporary R.O.</b>  |     | Batch ID: <b>18947</b>          |             | RunNo: <b>25835</b>                             |          |                    |      |          |      |
| Prep Date:                  | <b>4/29/2015</b>       |     | Analysis Date: <b>4/29/2015</b> |             | SeqNo: <b>766308</b>                            |          | Units: <b>mg/L</b> |      |          |      |
| Analyte                     | Result                 | PQL | SPK value                       | SPK Ref Val | %REC                                            | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 5.5                    | 1.0 | 5.000                           | 0           | 111                                             | 75.9     | 164                | 2.80 | 22.1     |      |
| Surr: DNOP                  | 0.61                   |     | 0.5000                          |             | 122                                             | 76.5     | 150                | 0    | 0        |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C23

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                               |        |                |           |             |                                  |          |           |      |          |      |
|-------------------------------|--------|----------------|-----------|-------------|----------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | 5ML RB | SampType:      | MBLK      | TestCode:   | EPA Method 8015D: Gasoline Range |          |           |      |          |      |
| Client ID:                    | PBW    | Batch ID:      | R25939    | RunNo:      | 25939                            |          |           |      |          |      |
| Prep Date:                    |        | Analysis Date: | 5/4/2015  | SeqNo:      | 768862                           | Units:   | mg/L      |      |          |      |
| Analyte                       | Result | PQL            | SPK value | SPK Ref Val | %REC                             | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND     | 0.050          |           |             |                                  |          |           |      |          |      |
| Surr: BFB                     | 18     |                | 20.00     |             | 88.4                             | 80       | 120       |      |          |      |

|                               |               |                |           |             |                                  |          |           |      |          |      |
|-------------------------------|---------------|----------------|-----------|-------------|----------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | 2.5UG GRO LCS | SampType:      | LCS       | TestCode:   | EPA Method 8015D: Gasoline Range |          |           |      |          |      |
| Client ID:                    | LCSW          | Batch ID:      | R25939    | RunNo:      | 25939                            |          |           |      |          |      |
| Prep Date:                    |               | Analysis Date: | 5/4/2015  | SeqNo:      | 768863                           | Units:   | mg/L      |      |          |      |
| Analyte                       | Result        | PQL            | SPK value | SPK Ref Val | %REC                             | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 0.46          | 0.050          | 0.5000    | 0           | 92.2                             | 80       | 120       |      |          |      |
| Surr: BFB                     | 18            |                | 20.00     |             | 91.1                             | 80       | 120       |      |          |      |

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13-May-15

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|                            |                 |     |                                |             |                                         |          |                    |      |          |      |
|----------------------------|-----------------|-----|--------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>MB-18997</b> |     | SampType: <b>MBLK</b>          |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>PBW</b>      |     | Batch ID: <b>18997</b>         |             | RunNo: <b>25944</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>5/1/2015</b> |     | Analysis Date: <b>5/5/2015</b> |             | SeqNo: <b>769049</b>                    |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                    | Result          | PQL | SPK value                      | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Aroclor 1016               | ND              | 1.0 |                                |             |                                         |          |                    |      |          |      |
| Aroclor 1221               | ND              | 1.0 |                                |             |                                         |          |                    |      |          |      |
| Aroclor 1232               | ND              | 1.0 |                                |             |                                         |          |                    |      |          |      |
| Aroclor 1242               | ND              | 1.0 |                                |             |                                         |          |                    |      |          |      |
| Aroclor 1248               | ND              | 1.0 |                                |             |                                         |          |                    |      |          |      |
| Aroclor 1254               | ND              | 1.0 |                                |             |                                         |          |                    |      |          |      |
| Aroclor 1260               | ND              | 1.0 |                                |             |                                         |          |                    |      |          |      |
| Surr: Decachlorobiphenyl   | 2.2             |     | 2.500                          |             | 87.2                                    | 44.5     | 110                |      |          |      |
| Surr: Tetrachloro-m-xylene | 2.4             |     | 2.500                          |             | 97.6                                    | 31.8     | 95.7               |      |          | S    |

|                            |                  |     |                                |             |                                         |          |                    |      |          |      |
|----------------------------|------------------|-----|--------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>LCS-18997</b> |     | SampType: <b>LCS</b>           |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>LCSW</b>      |     | Batch ID: <b>18997</b>         |             | RunNo: <b>25944</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>5/1/2015</b>  |     | Analysis Date: <b>5/5/2015</b> |             | SeqNo: <b>769942</b>                    |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                    | Result           | PQL | SPK value                      | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Aroclor 1016               | 4.9              | 1.0 | 5.000                          | 0           | 98.7                                    | 22.6     | 127                |      |          |      |
| Aroclor 1260               | 5.1              | 1.0 | 5.000                          | 0           | 102                                     | 20.4     | 122                |      |          |      |
| Surr: Decachlorobiphenyl   | 2.9              |     | 2.500                          |             | 114                                     | 44.5     | 110                |      |          | S    |
| Surr: Tetrachloro-m-xylene | 4.2              |     | 2.500                          |             | 169                                     | 31.8     | 95.7               |      |          | S    |

|                            |                   |     |                                |             |                                         |          |                    |      |          |      |
|----------------------------|-------------------|-----|--------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>LCSD-18997</b> |     | SampType: <b>LCSD</b>          |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>LCSS02</b>     |     | Batch ID: <b>18997</b>         |             | RunNo: <b>25944</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>5/1/2015</b>   |     | Analysis Date: <b>5/5/2015</b> |             | SeqNo: <b>769944</b>                    |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                    | Result            | PQL | SPK value                      | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Aroclor 1016               | 4.6               | 1.0 | 5.000                          | 0           | 93.0                                    | 22.6     | 127                | 6.03 | 26.9     |      |
| Aroclor 1260               | 5.3               | 1.0 | 5.000                          | 0           | 107                                     | 20.4     | 122                | 4.45 | 29.1     |      |
| Surr: Decachlorobiphenyl   | 3.0               |     | 2.500                          |             | 118                                     | 44.5     | 110                | 0    | 0        | S    |
| Surr: Tetrachloro-m-xylene | 3.8               |     | 2.500                          |             | 150                                     | 31.8     | 95.7               | 0    | 0        | S    |

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# QC SUMMARY REPORT

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WO#: 1504C23

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                             |                          |     |                  |               |      |                                       |           |      |          |      |
|-----------------------------|--------------------------|-----|------------------|---------------|------|---------------------------------------|-----------|------|----------|------|
| Sample ID                   | 100ng lcs                |     | SampType: LCS    |               |      | TestCode: EPA Method 8260B: VOLATILES |           |      |          |      |
| Client ID:                  | LCSW                     |     | Batch ID: R25860 |               |      | RunNo: 25860                          |           |      |          |      |
| Prep Date:                  | Analysis Date: 4/29/2015 |     |                  | SeqNo: 766354 |      | Units: µg/L                           |           |      |          |      |
| Analyte                     | Result                   | PQL | SPK value        | SPK Ref Val   | %REC | LowLimit                              | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                     | 19                       | 1.0 | 20.00            | 0             | 95.6 | 70                                    | 130       |      |          |      |
| Toluene                     | 20                       | 1.0 | 20.00            | 0             | 98.9 | 70                                    | 130       |      |          |      |
| 1,1-Dichloroethene          | 22                       | 1.0 | 20.00            | 0             | 108  | 75.6                                  | 144       |      |          |      |
| Trichloroethene (TCE)       | 20                       | 1.0 | 20.00            | 0             | 98.3 | 70                                    | 130       |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.9                      |     | 10.00            |               | 98.9 | 70                                    | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 10                       |     | 10.00            |               | 103  | 70                                    | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 10                       |     | 10.00            |               | 103  | 70                                    | 130       |      |          |      |
| Surr: Toluene-d8            | 10                       |     | 10.00            |               | 101  | 70                                    | 130       |      |          |      |

|                             |        |                          |           |             |                                       |          |             |      |          |      |
|-----------------------------|--------|--------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | 5mL rb | SampType: MBLK           |           |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                  | PBW    | Batch ID: R25860         |           |             | RunNo: 25860                          |          |             |      |          |      |
| Prep Date:                  |        | Analysis Date: 4/29/2015 |           |             | SeqNo: 766361                         |          | Units: µg/L |      |          |      |
| Analyte                     | Result | PQL                      | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Benzene                     | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| Toluene                     | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| Ethylbenzene                | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| 1,2-Dichloroethane (EDC)    | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| 1,2-Dibromoethane (EDB)     | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| Carbon Tetrachloride        | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| Chloroform                  | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| 1,1-Dichloroethane          | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| 1,1-Dichloroethene          | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| Methylene Chloride          | ND     | 3.0                      |           |             |                                       |          |             |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND     | 2.0                      |           |             |                                       |          |             |      |          |      |
| Tetrachloroethene (PCE)     | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| 1,1,1-Trichloroethane       | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| 1,1,2-Trichloroethane       | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| Trichloroethene (TCE)       | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| Vinyl chloride              | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| Xylenes, Total              | ND     | 1.5                      |           |             |                                       |          |             |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.7    |                          | 10.00     |             | 96.8                                  | 70       | 130         |      |          |      |
| Surr: 4-Bromofluorobenzene  | 10     |                          | 10.00     |             | 104                                   | 70       | 130         |      |          |      |
| Surr: Dibromofluoromethane  | 10     |                          | 10.00     |             | 101                                   | 70       | 130         |      |          |      |
| Surr: Toluene-d8            | 9.9    |                          | 10.00     |             | 99.2                                  | 70       | 130         |      |          |      |

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P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C23

13-May-15

**Client:** Navajo Refining Company

**Project:** Monthly RO Reject

| Sample ID <b>MB-18998</b>  | SampType: <b>MBLK</b>          |       |           | TestCode: <b>EPA Method 8310: PAHs</b> |      |                    |           |      |          |      |
|----------------------------|--------------------------------|-------|-----------|----------------------------------------|------|--------------------|-----------|------|----------|------|
| Client ID: <b>PBW</b>      | Batch ID: <b>18998</b>         |       |           | RunNo: <b>25938</b>                    |      |                    |           |      |          |      |
| Prep Date: <b>5/1/2015</b> | Analysis Date: <b>5/5/2015</b> |       |           | SeqNo: <b>769391</b>                   |      | Units: <b>µg/L</b> |           |      |          |      |
| Analyte                    | Result                         | PQL   | SPK value | SPK Ref Val                            | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Naphthalene                | ND                             | 2.0   |           |                                        |      |                    |           |      |          |      |
| 1-Methylnaphthalene        | ND                             | 2.0   |           |                                        |      |                    |           |      |          |      |
| 2-Methylnaphthalene        | ND                             | 2.0   |           |                                        |      |                    |           |      |          |      |
| Acenaphthylene             | ND                             | 2.5   |           |                                        |      |                    |           |      |          |      |
| Acenaphthene               | ND                             | 2.0   |           |                                        |      |                    |           |      |          |      |
| Fluorene                   | ND                             | 0.80  |           |                                        |      |                    |           |      |          |      |
| Phenanthrene               | ND                             | 0.60  |           |                                        |      |                    |           |      |          |      |
| Anthracene                 | ND                             | 0.60  |           |                                        |      |                    |           |      |          |      |
| Fluoranthene               | ND                             | 0.30  |           |                                        |      |                    |           |      |          |      |
| Pyrene                     | ND                             | 0.30  |           |                                        |      |                    |           |      |          |      |
| Benz(a)anthracene          | ND                             | 0.070 |           |                                        |      |                    |           |      |          |      |
| Chrysene                   | ND                             | 0.20  |           |                                        |      |                    |           |      |          |      |
| Benzo(b)fluoranthene       | ND                             | 0.10  |           |                                        |      |                    |           |      |          |      |
| Benzo(k)fluoranthene       | ND                             | 0.070 |           |                                        |      |                    |           |      |          |      |
| Benzo(a)pyrene             | ND                             | 0.070 |           |                                        |      |                    |           |      |          |      |
| Dibenz(a,h)anthracene      | ND                             | 0.12  |           |                                        |      |                    |           |      |          |      |
| Benzo(g,h,i)perylene       | ND                             | 0.12  |           |                                        |      |                    |           |      |          |      |
| Indeno(1,2,3-cd)pyrene     | ND                             | 0.25  |           |                                        |      |                    |           |      |          |      |
| Surr: Benzo(e)pyrene       | 14                             |       | 20.00     |                                        | 71.8 | 30.8               | 125       |      |          |      |

| Sample ID <b>LCS-18998</b> | SampType: <b>LCS</b>           |       |           | TestCode: <b>EPA Method 8310: PAHs</b> |      |                    |           |      |          |      |
|----------------------------|--------------------------------|-------|-----------|----------------------------------------|------|--------------------|-----------|------|----------|------|
| Client ID: <b>LCSW</b>     | Batch ID: <b>18998</b>         |       |           | RunNo: <b>25938</b>                    |      |                    |           |      |          |      |
| Prep Date: <b>5/1/2015</b> | Analysis Date: <b>5/5/2015</b> |       |           | SeqNo: <b>769392</b>                   |      | Units: <b>µg/L</b> |           |      |          |      |
| Analyte                    | Result                         | PQL   | SPK value | SPK Ref Val                            | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Naphthalene                | 55                             | 2.0   | 80.00     | 0                                      | 69.3 | 41                 | 76.8      |      |          |      |
| 1-Methylnaphthalene        | 57                             | 2.0   | 80.20     | 0                                      | 71.0 | 24.7               | 81        |      |          |      |
| 2-Methylnaphthalene        | 56                             | 2.0   | 80.00     | 0                                      | 70.4 | 17.4               | 81.9      |      |          |      |
| Acenaphthylene             | 60                             | 2.5   | 80.20     | 0                                      | 75.4 | 50.3               | 77.5      |      |          |      |
| Acenaphthene               | 57                             | 2.0   | 80.00     | 0                                      | 71.8 | 27.7               | 81.1      |      |          |      |
| Fluorene                   | 5.8                            | 0.80  | 8.020     | 0                                      | 72.8 | 34.2               | 75.1      |      |          |      |
| Phenanthrene               | 2.9                            | 0.60  | 4.020     | 0                                      | 72.4 | 44.6               | 88.3      |      |          |      |
| Anthracene                 | 2.9                            | 0.60  | 4.020     | 0                                      | 72.1 | 41.9               | 85.3      |      |          |      |
| Fluoranthene               | 6.1                            | 0.30  | 8.020     | 0                                      | 76.2 | 40.6               | 88        |      |          |      |
| Pyrene                     | 6.6                            | 0.30  | 8.020     | 0                                      | 82.8 | 41                 | 86.6      |      |          |      |
| Benz(a)anthracene          | 0.62                           | 0.070 | 0.8020    | 0                                      | 77.3 | 43.8               | 86.7      |      |          |      |
| Chrysene                   | 3.1                            | 0.20  | 4.020     | 0                                      | 76.9 | 44.5               | 80.7      |      |          |      |
| Benzo(b)fluoranthene       | 0.81                           | 0.10  | 1.002     | 0                                      | 80.8 | 44.3               | 87.1      |      |          |      |
| Benzo(k)fluoranthene       | 0.39                           | 0.070 | 0.5000    | 0                                      | 78.0 | 39.9               | 94.3      |      |          |      |

### Qualifiers:

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 J Analyte detected below quantitation limits  
 O RSD is greater than RSDlimit  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

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 ND Not Detected at the Reporting Limit  
 P Sample pH Not In Range  
 RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C23

13-May-15

**Client:** Navajo Refining Company

**Project:** Monthly RO Reject

|                        |           |       |           |                |          |          |           |           |                       |      |  |
|------------------------|-----------|-------|-----------|----------------|----------|----------|-----------|-----------|-----------------------|------|--|
| Sample ID              | LCS-18998 |       |           | SampType:      | LCS      |          |           | TestCode: | EPA Method 8310: PAHs |      |  |
| Client ID:             | LCSW      |       |           | Batch ID:      | 18998    |          |           | RunNo:    | 25938                 |      |  |
| Prep Date:             | 5/1/2015  |       |           | Analysis Date: | 5/5/2015 |          |           | SeqNo:    | 769392                |      |  |
|                        |           |       |           |                |          |          |           | Units:    | µg/L                  |      |  |
| Analyte                | Result    | PQL   | SPK value | SPK Ref Val    | %REC     | LowLimit | HighLimit | %RPD      | RPDLimit              | Qual |  |
| Benzo(a)pyrene         | 0.39      | 0.070 | 0.5020    | 0              | 77.7     | 44       | 86.5      |           |                       |      |  |
| Dibenz(a,h)anthracene  | 0.78      | 0.12  | 1.002     | 0              | 77.8     | 48.8     | 83.6      |           |                       |      |  |
| Benzo(g,h,i)perylene   | 0.83      | 0.12  | 1.000     | 0              | 83.0     | 43.6     | 84.5      |           |                       |      |  |
| Indeno(1,2,3-cd)pyrene | 1.6       | 0.25  | 2.004     | 0              | 77.3     | 49.2     | 91.1      |           |                       |      |  |
| Surr: Benzo(e)pyrene   | 21        |       | 20.00     |                | 106      | 30.8     | 125       |           |                       |      |  |

|                        |            |       |                         |             |                                 |          |             |      |          |      |
|------------------------|------------|-------|-------------------------|-------------|---------------------------------|----------|-------------|------|----------|------|
| Sample ID              | LCSD-18998 |       | SampType: LCSD          |             | TestCode: EPA Method 8310: PAHs |          |             |      |          |      |
| Client ID:             | LCSS02     |       | Batch ID: 18998         |             | RunNo: 25938                    |          |             |      |          |      |
| Prep Date:             | 5/1/2015   |       | Analysis Date: 5/5/2015 |             | SeqNo: 769393                   |          | Units: µg/L |      |          |      |
| Analyte                | Result     | PQL   | SPK value               | SPK Ref Val | %REC                            | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Naphthalene            | 58         | 2.0   | 80.00                   | 0           | 72.7                            | 41       | 76.8        | 4.75 | 20       |      |
| 1-Methylnaphthalene    | 60         | 2.0   | 80.20                   | 0           | 74.4                            | 24.7     | 81          | 4.68 | 20       |      |
| 2-Methylnaphthalene    | 59         | 2.0   | 80.00                   | 0           | 73.8                            | 17.4     | 81.9        | 4.70 | 20       |      |
| Acenaphthylene         | 63         | 2.5   | 80.20                   | 0           | 78.7                            | 50.3     | 77.5        | 4.29 | 20       | S    |
| Acenaphthene           | 60         | 2.0   | 80.00                   | 0           | 74.9                            | 27.7     | 81.1        | 4.26 | 20       |      |
| Fluorene               | 6.1        | 0.80  | 8.020                   | 0           | 75.7                            | 34.2     | 75.1        | 3.86 | 20       | S    |
| Phenanthrene           | 3.1        | 0.60  | 4.020                   | 0           | 76.1                            | 44.6     | 88.3        | 5.03 | 24       |      |
| Anthracene             | 3.0        | 0.60  | 4.020                   | 0           | 75.9                            | 41.9     | 85.3        | 5.04 | 20       |      |
| Fluoranthene           | 6.4        | 0.30  | 8.020                   | 0           | 79.9                            | 40.6     | 88          | 4.79 | 20.9     |      |
| Pyrene                 | 7.0        | 0.30  | 8.020                   | 0           | 86.8                            | 41       | 86.6        | 4.71 | 20.8     | S    |
| Benz(a)anthracene      | 0.65       | 0.070 | 0.8020                  | 0           | 81.0                            | 43.8     | 86.7        | 4.72 | 20       |      |
| Chrysene               | 3.3        | 0.20  | 4.020                   | 0           | 80.8                            | 44.5     | 80.7        | 5.05 | 20       | S    |
| Benzo(b)fluoranthene   | 0.84       | 0.10  | 1.002                   | 0           | 83.8                            | 44.3     | 87.1        | 3.64 | 20.6     |      |
| Benzo(k)fluoranthene   | 0.41       | 0.070 | 0.5000                  | 0           | 82.0                            | 39.9     | 94.3        | 5.00 | 20.8     |      |
| Benzo(a)pyrene         | 0.41       | 0.070 | 0.5020                  | 0           | 81.7                            | 44       | 86.5        | 5.00 | 20       |      |
| Dibenz(a,h)anthracene  | 0.83       | 0.12  | 1.002                   | 0           | 82.8                            | 48.8     | 83.6        | 6.21 | 20       |      |
| Benzo(g,h,i)perylene   | 0.87       | 0.12  | 1.000                   | 0           | 87.0                            | 43.6     | 84.5        | 4.71 | 20       | S    |
| Indeno(1,2,3-cd)pyrene | 1.6        | 0.25  | 2.004                   | 0           | 81.3                            | 49.2     | 91.1        | 5.03 | 20       |      |
| Surr: Benzo(e)pyrene   | 22         |       | 20.00                   |             | 112                             | 30.8     | 125         | 0    |          |      |

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 RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C23

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                              |           |                |           |             |                                |          |           |      |          |      |
|------------------------------|-----------|----------------|-----------|-------------|--------------------------------|----------|-----------|------|----------|------|
| Sample ID                    | MB-18972  | SampType:      | MBLK      | TestCode:   | Total Phenolics by SW-846 9067 |          |           |      |          |      |
| Client ID:                   | PBW       | Batch ID:      | 18972     | RunNo:      | 25901                          |          |           |      |          |      |
| Prep Date:                   | 4/30/2015 | Analysis Date: | 4/30/2015 | SeqNo:      | 767792                         | Units:   | µg/L      |      |          |      |
| Analyte                      | Result    | PQL            | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | ND        | 2.5            |           |             |                                |          |           |      |          |      |

|                              |           |                |           |             |                                |          |           |      |          |      |
|------------------------------|-----------|----------------|-----------|-------------|--------------------------------|----------|-----------|------|----------|------|
| Sample ID                    | LCS-18972 | SampType:      | LCS       | TestCode:   | Total Phenolics by SW-846 9067 |          |           |      |          |      |
| Client ID:                   | LCSW      | Batch ID:      | 18972     | RunNo:      | 25901                          |          |           |      |          |      |
| Prep Date:                   | 4/30/2015 | Analysis Date: | 4/30/2015 | SeqNo:      | 767793                         | Units:   | µg/L      |      |          |      |
| Analyte                      | Result    | PQL            | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | 22        | 2.5            | 20.00     | 0           | 109                            | 75.7     | 126       |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C23

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |           |        |                         |             |                                           |          |             |      |          |      |
|------------|-----------|--------|-------------------------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-R26153 |        | SampType: MBLK          |             | TestCode: EPA 335.4: Total Cyanide Subbed |          |             |      |          |      |
| Client ID: | PBW       |        | Batch ID: R26153        |             | RunNo: 26153                              |          |             |      |          |      |
| Prep Date: |           |        | Analysis Date: 5/5/2015 |             | SeqNo: 775896                             |          | Units: mg/L |      |          |      |
| Analyte    | Result    | PQL    | SPK value               | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cyanide    | ND        | 0.0100 |                         |             |                                           |          |             |      |          |      |

|            |            |     |                         |             |                                           |          |             |      |          |      |
|------------|------------|-----|-------------------------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-R26153 |     | SampType: LCS           |             | TestCode: EPA 335.4: Total Cyanide Subbed |          |             |      |          |      |
| Client ID: | LCSW       |     | Batch ID: R26153        |             | RunNo: 26153                              |          |             |      |          |      |
| Prep Date: |            |     | Analysis Date: 5/5/2015 |             | SeqNo: 775897                             |          | Units: mg/L |      |          |      |
| Analyte    | Result     | PQL | SPK value               | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cyanide    | 0.500      |     | 0.5000                  | 0           | 100                                       | 90       | 110         |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C23

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

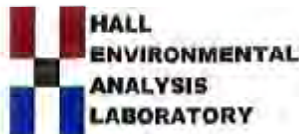
|                        |           |                         |           |             |                                               |          |             |      |          |      |
|------------------------|-----------|-------------------------|-----------|-------------|-----------------------------------------------|----------|-------------|------|----------|------|
| Sample ID              | MB-18979  | SampType: MBLK          |           |             | TestCode: SM2540C MOD: Total Dissolved Solids |          |             |      |          |      |
| Client ID:             | PBW       | Batch ID: 18979         |           |             | RunNo: 25912                                  |          |             |      |          |      |
| Prep Date:             | 4/30/2015 | Analysis Date: 5/1/2015 |           |             | SeqNo: 768004                                 |          | Units: mg/L |      |          |      |
| Analyte                | Result    | PQL                     | SPK value | SPK Ref Val | %REC                                          | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Total Dissolved Solids | ND        | 20.0                    |           |             |                                               |          |             |      |          |      |

|                        |           |                         |           |             |                                               |          |             |      |          |      |
|------------------------|-----------|-------------------------|-----------|-------------|-----------------------------------------------|----------|-------------|------|----------|------|
| Sample ID              | LCS-18979 | SampType: LCS           |           |             | TestCode: SM2540C MOD: Total Dissolved Solids |          |             |      |          |      |
| Client ID:             | LCSW      | Batch ID: 18979         |           |             | RunNo: 25912                                  |          |             |      |          |      |
| Prep Date:             | 4/30/2015 | Analysis Date: 5/1/2015 |           |             | SeqNo: 768005                                 |          | Units: mg/L |      |          |      |
| Analyte                | Result    | PQL                     | SPK value | SPK Ref Val | %REC                                          | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Total Dissolved Solids | 999       | 20.0                    | 1000      | 0           | 99.9                                          | 80       | 120         |      |          |      |

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Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: NAVAJO REFINING CO

Work Order Number: 1504C23

RcptNo: 1

Received by/date: CS 04/29/15

Logged By: Lindsay Mangin

4/29/2015 9:15:00 AM

Completed By: Lindsay Mangin

4/29/2015 9:48:07 AM

Reviewed By: JM

04/29/15

### Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

### Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ?

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☒

No ☒

CS 04/29/15 Samples VOA + -VZ  
No VOA Vials have bubbles

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

# of preserved bottles checked for pH: 5/1  
( $<2$  or  $>12$  unless noted)  
Adjusted? no

Checked by: CS

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 1.0     | Good      | Yes         |         |           |           |

# Chain-of-Custody Record

Client: Navajo Refining Co.

Mailing Address: P.O. Box 159 Artesia,

NM 88211-0159

Phone #: 575-748-3311

email or Fax# 575-748-5451

QA/QC: Package

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Project Manager:

Scott Denton / Robert Combs

Sampler: Elizabeth Salsberry

On Ice: ☒ Yes ☐ No

Sample Temperature: 10°C

X Standard ☐ Rush

Project Name:

Monthly RO Reject

Project #: P.O. # 167796

Project Manager:

Scott Denton / Robert Combs

Sampler: Elizabeth Salsberry

On Ice: ☒ Yes ☐ No

Sample Temperature: 10°C

Date Time Matrix Sample Request ID

4/28/15 8:30AM Ag Temporary R.O.

4/28/15 8:30AM

4/28/15 8:30AM

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Date Time

4/28/15 10:45am

Date Time

4/28/15 10:45am

Relinquished by: Elizabeth Salsberry

Relinquished by: Elizabeth Salsberry

Relinquished by: Elizabeth Salsberry

Relinquished by: Elizabeth Salsberry

Date Time

4/29/15 0915

Date Time

4/29/15 0915

Received by:

Robert Combs

Received by:

Robert Combs

Remarks: Send results to Scott Denton, Mike Holder, Micki

Schultz, Robert Combs and Andrew Contreras.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

See Attachment



[illegible]

| Sample | Reference | Min | Max | Average |
|--------|-----------|-----|-----|---------|
| 1      | 1         | 0   | 0   | 0       |
| 2      | 2         | 0   | 0   | 0       |
| 3      | 3         | 0   | 0   | 0       |
| 4      | 4         | 0   | 0   | 0       |
| 5      | 5         | 0   | 0   | 0       |
| 6      | 6         | 0   | 0   | 0       |
| 7      | 7         | 0   | 0   | 0       |
| 8      | 8         | 0   | 0   | 0       |
| 9      | 9         | 0   | 0   | 0       |
| 10     | 10        | 0   | 0   | 0       |
| 11     | 11        | 0   | 0   | 0       |
| 12     | 12        | 0   | 0   | 0       |
| 13     | 13        | 0   | 0   | 0       |
| 14     | 14        | 0   | 0   | 0       |
| 15     | 15        | 0   | 0   | 0       |
| 16     | 16        | 0   | 0   | 0       |
| 17     | 17        | 0   | 0   | 0       |
| 18     | 18        | 0   | 0   | 0       |
| 19     | 19        | 0   | 0   | 0       |
| 20     | 20        | 0   | 0   | 0       |
| 21     | 21        | 0   | 0   | 0       |
| 22     | 22        | 0   | 0   | 0       |
| 23     | 23        | 0   | 0   | 0       |
| 24     | 24        | 0   | 0   | 0       |
| 25     | 25        | 0   | 0   | 0       |
| 26     | 26        | 0   | 0   | 0       |
| 27     | 27        | 0   | 0   | 0       |
| 28     | 28        | 0   | 0   | 0       |
| 29     | 29        | 0   | 0   | 0       |
| 30     | 30        | 0   | 0   | 0       |
| 31     | 31        | 0   | 0   | 0       |
| 32     | 32        | 0   | 0   | 0       |
| 33     | 33        | 0   | 0   | 0       |
| 34     | 34        | 0   | 0   | 0       |
| 35     | 35        | 0   | 0   | 0       |
| 36     | 36        | 0   | 0   | 0       |
| 37     | 37        | 0   | 0   | 0       |
| 38     | 38        | 0   | 0   | 0       |
| 39     | 39        | 0   | 0   | 0       |
| 40     | 40        | 0   | 0   | 0       |
| 41     | 41        | 0   | 0   | 0       |
| 42     | 42        | 0   | 0   | 0       |
| 43     | 43        | 0   | 0   | 0       |
| 44     | 44        | 0   | 0   | 0       |
| 45     | 45        | 0   | 0   | 0       |
| 46     | 46        | 0   | 0   | 0       |
| 47     | 47        | 0   | 0   | 0       |
| 48     | 48        | 0   | 0   | 0       |
| 49     | 49        | 0   | 0   | 0       |
| 50     | 50        | 0   | 0   | 0       |
| 51     | 51        | 0   | 0   | 0       |
| 52     | 52        | 0   | 0   | 0       |
| 53     | 53        | 0   | 0   | 0       |
| 54     | 54        | 0   | 0   | 0       |
| 55     | 55        | 0   | 0   | 0       |
| 56     | 56        | 0   | 0   | 0       |
| 57     | 57        | 0   | 0   | 0       |
| 58     | 58        | 0   | 0   | 0       |
| 59     | 59        | 0   | 0   | 0       |
| 60     | 60        | 0   | 0   | 0       |
| 61     | 61        | 0   | 0   | 0       |
| 62     | 62        | 0   | 0   | 0       |
| 63     | 63        | 0   | 0   | 0       |
| 64     | 64        | 0   | 0   | 0       |
| 65     | 65        | 0   | 0   | 0       |
| 66     | 66        | 0   | 0   | 0       |
| 67     | 67        | 0   | 0   | 0       |
| 68     | 68        | 0   | 0   | 0       |
| 69     | 69        | 0   | 0   | 0       |
| 70     | 70        | 0   | 0   | 0       |
| 71     | 71        | 0   | 0   | 0       |
| 72     | 72        | 0   | 0   | 0       |
| 73     | 73        | 0   | 0   | 0       |
| 74     | 74        | 0   | 0   | 0       |
| 75     | 75        | 0   | 0   | 0       |
| 76     | 76        | 0   | 0   | 0       |
| 77     | 77        | 0   | 0   | 0       |
| 78     | 78        | 0   | 0   | 0       |
| 79     | 79        | 0   | 0   | 0       |
| 80     | 80        | 0   | 0   | 0       |
| 81     | 81        | 0   | 0   | 0       |
| 82     | 82        | 0   | 0   | 0       |
| 83     | 83        | 0   | 0   | 0       |
| 84     | 84        | 0   | 0   | 0       |
| 85     | 85        | 0   | 0   | 0       |
| 86     | 86        | 0   | 0   | 0       |
| 87     | 87        | 0   | 0   | 0       |
| 88     | 88        | 0   | 0   | 0       |
| 89     | 89        | 0   | 0   | 0       |
| 90     | 90        | 0   | 0   | 0       |
| 91     | 91        | 0   | 0   | 0       |
| 92     | 92        | 0   | 0   | 0       |
| 93     | 93        | 0   | 0   | 0       |
| 94     | 94        | 0   | 0   | 0       |
| 95     | 95        | 0   | 0   | 0       |
| 96     | 96        | 0   | 0   | 0       |
| 97     | 97        | 0   | 0   | 0       |
| 98     | 98        | 0   | 0   | 0       |
| 99     | 99        | 0   | 0   | 0       |
| 100    | 100       | 0   | 0   | 0       |



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

May 13, 2015

Scott Denton

Navajo Refining Company

P.O. Box 159

Artesia, NM 88211-0159

TEL: (575) 748-3311

FAX

RE: Monthly RO Reject

OrderNo.: 1504C24

Dear Scott Denton:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/29/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1504C24

Date Reported: 5/13/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** R.O.

**Project:** Monthly RO Reject

**Collection Date:** 4/28/2015 8:45:00 AM

**Lab ID:** 1504C24-001

**Matrix:** AQUEOUS

**Received Date:** 4/29/2015 9:15:00 AM

| Analyses                                  | Result | RL        | Qual | Units | DF | Date Analyzed        | Batch               |
|-------------------------------------------|--------|-----------|------|-------|----|----------------------|---------------------|
| <b>EPA METHOD 8011/504.1: EDB</b>         |        |           |      |       |    |                      | Analyst: <b>JME</b> |
| 1,2-Dibromoethane                         | ND     | 0.010     |      | µg/L  | 1  | 4/30/2015 5:33:16 PM | 18974               |
| <b>EPA METHOD 8082: PCB'S</b>             |        |           |      |       |    |                      | Analyst: <b>SCC</b> |
| Aroclor 1016                              | ND     | 1.0       |      | µg/L  | 1  | 5/5/2015 3:50:42 PM  | 18997               |
| Aroclor 1221                              | ND     | 1.0       |      | µg/L  | 1  | 5/5/2015 3:50:42 PM  | 18997               |
| Aroclor 1232                              | ND     | 1.0       |      | µg/L  | 1  | 5/5/2015 3:50:42 PM  | 18997               |
| Aroclor 1242                              | ND     | 1.0       |      | µg/L  | 1  | 5/5/2015 3:50:42 PM  | 18997               |
| Aroclor 1248                              | ND     | 1.0       |      | µg/L  | 1  | 5/5/2015 3:50:42 PM  | 18997               |
| Aroclor 1254                              | ND     | 1.0       |      | µg/L  | 1  | 5/5/2015 3:50:42 PM  | 18997               |
| Aroclor 1260                              | ND     | 1.0       |      | µg/L  | 1  | 5/5/2015 3:50:42 PM  | 18997               |
| Surr: Decachlorobiphenyl                  | 115    | 44.5-110  | S    | %REC  | 1  | 5/5/2015 3:50:42 PM  | 18997               |
| Surr: Tetrachloro-m-xylene                | 126    | 31.8-95.7 | S    | %REC  | 1  | 5/5/2015 3:50:42 PM  | 18997               |
| <b>EPA METHOD 8015D: DIESEL RANGE</b>     |        |           |      |       |    |                      | Analyst: <b>KJH</b> |
| Diesel Range Organics (DRO)               | ND     | 1.0       |      | mg/L  | 1  | 4/29/2015 4:57:42 PM | 18947               |
| Motor Oil Range Organics (MRO)            | ND     | 5.0       |      | mg/L  | 1  | 4/29/2015 4:57:42 PM | 18947               |
| Surr: DNOP                                | 113    | 76.5-150  |      | %REC  | 1  | 4/29/2015 4:57:42 PM | 18947               |
| <b>EPA METHOD 8015D: GASOLINE RANGE</b>   |        |           |      |       |    |                      | Analyst: <b>NSB</b> |
| Gasoline Range Organics (GRO)             | ND     | 0.050     |      | mg/L  | 1  | 5/4/2015 4:01:53 PM  | R25939              |
| Surr: BFB                                 | 87.5   | 80-120    |      | %REC  | 1  | 5/4/2015 4:01:53 PM  | R25939              |
| <b>EPA METHOD 8310: PAHS</b>              |        |           |      |       |    |                      | Analyst: <b>SCC</b> |
| Naphthalene                               | ND     | 2.0       |      | µg/L  | 1  | 5/5/2015 11:32:18 AM | 18998               |
| 1-Methylnaphthalene                       | ND     | 2.0       |      | µg/L  | 1  | 5/5/2015 11:32:18 AM | 18998               |
| 2-Methylnaphthalene                       | ND     | 2.0       |      | µg/L  | 1  | 5/5/2015 11:32:18 AM | 18998               |
| Benzo(a)pyrene                            | ND     | 0.070     |      | µg/L  | 1  | 5/5/2015 11:32:18 AM | 18998               |
| Surr: Benzo(e)pyrene                      | 81.0   | 30.8-125  |      | %REC  | 1  | 5/5/2015 11:32:18 AM | 18998               |
| <b>EPA METHOD 300.0: ANIONS</b>           |        |           |      |       |    |                      | Analyst: <b>LGT</b> |
| Fluoride                                  | 2.2    | 0.10      |      | mg/L  | 1  | 4/29/2015 3:25:23 PM | R25872              |
| Chloride                                  | 37     | 10        |      | mg/L  | 20 | 4/29/2015 4:02:38 PM | R25872              |
| Nitrogen, Nitrate (As N)                  | 1.1    | 0.10      |      | mg/L  | 1  | 4/29/2015 3:25:23 PM | R25872              |
| Sulfate                                   | 1100   | 25        |      | mg/L  | 50 | 5/6/2015 12:59:46 AM | R25994              |
| <b>EPA METHOD 200.7: DISSOLVED METALS</b> |        |           |      |       |    |                      | Analyst: <b>JLF</b> |
| Aluminum                                  | ND     | 0.020     |      | mg/L  | 1  | 4/29/2015 6:14:42 PM | R25851              |
| Barium                                    | 0.041  | 0.0020    |      | mg/L  | 1  | 4/29/2015 6:14:42 PM | R25851              |
| Boron                                     | 0.089  | 0.040     |      | mg/L  | 1  | 4/29/2015 6:14:42 PM | R25851              |
| Cadmium                                   | ND     | 0.0020    |      | mg/L  | 1  | 4/30/2015 1:05:27 PM | R25881              |
| Chromium                                  | ND     | 0.0060    |      | mg/L  | 1  | 4/29/2015 6:14:42 PM | R25851              |
| Cobalt                                    | ND     | 0.0060    |      | mg/L  | 1  | 4/29/2015 6:14:42 PM | R25851              |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |   |                                                 |    |                                                    |
|--------------------|---|-------------------------------------------------|----|----------------------------------------------------|
| <b>Qualifiers:</b> | * | Value exceeds Maximum Contaminant Level.        | B  | Analyte detected in the associated Method Blank    |
|                    | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |
|                    | J | Analyte detected below quantitation limits      | ND | Not Detected at the Reporting Limit                |
|                    | O | RSD is greater than RSDlimit                    | P  | Sample pH Not In Range                             |
|                    | R | RPD outside accepted recovery limits            | RL | Reporting Detection Limit                          |
|                    | S | Spike Recovery outside accepted recovery limits |    |                                                    |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1504C24

Date Reported: 5/13/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** R.O.

**Project:** Monthly RO Reject

**Collection Date:** 4/28/2015 8:45:00 AM

**Lab ID:** 1504C24-001

**Matrix:** AQUEOUS

**Received Date:** 4/29/2015 9:15:00 AM

| Analyses                                  | Result | RL      | Qual | Units | DF | Date Analyzed        | Batch                |
|-------------------------------------------|--------|---------|------|-------|----|----------------------|----------------------|
| <b>EPA METHOD 200.7: DISSOLVED METALS</b> |        |         |      |       |    |                      | Analyst: <b>JLF</b>  |
| Copper                                    | ND     | 0.0060  |      | mg/L  | 1  | 4/29/2015 6:14:42 PM | R25851               |
| Iron                                      | ND     | 0.020   |      | mg/L  | 1  | 4/29/2015 6:14:42 PM | R25851               |
| Manganese                                 | ND     | 0.0020  |      | mg/L  | 1  | 4/29/2015 6:14:42 PM | R25851               |
| Molybdenum                                | ND     | 0.0080  |      | mg/L  | 1  | 4/30/2015 1:05:27 PM | R25881               |
| Nickel                                    | ND     | 0.010   |      | mg/L  | 1  | 4/29/2015 6:14:42 PM | R25851               |
| Silver                                    | ND     | 0.0050  |      | mg/L  | 1  | 4/30/2015 1:05:27 PM | R25881               |
| Zinc                                      | 0.075  | 0.010   |      | mg/L  | 1  | 4/29/2015 6:14:42 PM | R25851               |
| <b>EPA 200.8: DISSOLVED METALS</b>        |        |         |      |       |    |                      | Analyst: <b>DBD</b>  |
| Arsenic                                   | ND     | 0.0050  |      | mg/L  | 5  | 5/7/2015 2:35:40 PM  | R26042               |
| Lead                                      | ND     | 0.0010  |      | mg/L  | 1  | 5/5/2015 11:04:05 AM | R25950               |
| Selenium                                  | 0.0053 | 0.0010  |      | mg/L  | 1  | 5/5/2015 11:04:05 AM | R25950               |
| Uranium                                   | 0.0042 | 0.0010  |      | mg/L  | 1  | 5/5/2015 11:04:05 AM | R25950               |
| <b>EPA METHOD 245.1: MERCURY</b>          |        |         |      |       |    |                      | Analyst: <b>MED</b>  |
| Mercury                                   | ND     | 0.00020 |      | mg/L  | 1  | 5/4/2015 2:01:49 PM  | 18982                |
| <b>EPA METHOD 8260B: VOLATILES</b>        |        |         |      |       |    |                      | Analyst: <b>cadg</b> |
| Benzene                                   | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| Toluene                                   | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| Ethylbenzene                              | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| 1,2-Dichloroethane (EDC)                  | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| 1,2-Dibromoethane (EDB)                   | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| Carbon Tetrachloride                      | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| Chloroform                                | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| 1,1-Dichloroethane                        | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| 1,1-Dichloroethene                        | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| Methylene Chloride                        | ND     | 3.0     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| 1,1,2,2-Tetrachloroethane                 | ND     | 2.0     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| Tetrachloroethene (PCE)                   | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| 1,1,1-Trichloroethane                     | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| 1,1,2-Trichloroethane                     | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| Trichloroethene (TCE)                     | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| Vinyl chloride                            | ND     | 1.0     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| Xylenes, Total                            | ND     | 1.5     |      | µg/L  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| Surr: 1,2-Dichloroethane-d4               | 89.8   | 70-130  |      | %REC  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| Surr: 4-Bromofluorobenzene                | 99.8   | 70-130  |      | %REC  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| Surr: Dibromofluoromethane                | 92.8   | 70-130  |      | %REC  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| Surr: Toluene-d8                          | 103    | 70-130  |      | %REC  | 1  | 4/29/2015 6:01:15 PM | R25860               |
| <b>TOTAL PHENOLICS BY SW-846 9067</b>     |        |         |      |       |    |                      | Analyst: <b>SCC</b>  |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                   |                                                      |
|--------------------|---------------------------------------------------|------------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
|                    | E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
|                    | J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
|                    | O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
|                    | R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
|                    | S Spike Recovery outside accepted recovery limits |                                                      |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1504C24

Date Reported: 5/13/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** R.O.

**Project:** Monthly RO Reject

**Collection Date:** 4/28/2015 8:45:00 AM

**Lab ID:** 1504C24-001

**Matrix:** AQUEOUS

**Received Date:** 4/29/2015 9:15:00 AM

| Analyses                                   | Result | RL     | Qual | Units    | DF | Date Analyzed       | Batch               |
|--------------------------------------------|--------|--------|------|----------|----|---------------------|---------------------|
| <b>TOTAL PHENOLICS BY SW-846 9067</b>      |        |        |      |          |    |                     | Analyst: <b>SCC</b> |
| Phenolics, Total Recoverable               | ND     | 2.5    |      | µg/L     | 1  | 4/30/2015           | 18972               |
| <b>EPA 335.4: TOTAL CYANIDE SUBBED</b>     |        |        |      |          |    |                     | Analyst: <b>SUB</b> |
| Cyanide                                    | ND     | 0.0100 |      | mg/L     | 1  | 5/5/2015            | R26153              |
| <b>SM4500-H+B: PH</b>                      |        |        |      |          |    |                     | Analyst: <b>JRR</b> |
| pH                                         | 8.09   | 1.68   | H    | pH units | 1  | 5/5/2015 5:57:25 PM | R25990              |
| <b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b> |        |        |      |          |    |                     | Analyst: <b>KS</b>  |
| Total Dissolved Solids                     | 2190   | 20.0   | *    | mg/L     | 1  | 5/1/2015 3:30:00 PM | 18979               |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |   |                                                 |    |                                                    |              |
|--------------------|---|-------------------------------------------------|----|----------------------------------------------------|--------------|
| <b>Qualifiers:</b> | * | Value exceeds Maximum Contaminant Level.        | B  | Analyte detected in the associated Method Blank    | Page 3 of 20 |
|                    | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |              |
|                    | J | Analyte detected below quantitation limits      | ND | Not Detected at the Reporting Limit                |              |
|                    | O | RSD is greater than RSDlimit                    | P  | Sample pH Not In Range                             |              |
|                    | R | RPD outside accepted recovery limits            | RL | Reporting Detection Limit                          |              |
|                    | S | Spike Recovery outside accepted recovery limits |    |                                                    |              |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1504C24

Date Reported: 5/13/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** Trip Blank

**Project:** Monthly RO Reject

**Collection Date:**

**Lab ID:** 1504C24-002

**Matrix:** TRIP BLANK

**Received Date:** 4/29/2015 9:15:00 AM

| Analyses                           | Result | RL     | Qual | Units | DF | Date Analyzed        | Batch         |
|------------------------------------|--------|--------|------|-------|----|----------------------|---------------|
| <b>EPA METHOD 8011/504.1: EDB</b>  |        |        |      |       |    |                      | Analyst: JME  |
| 1,2-Dibromoethane                  | ND     | 0.010  |      | µg/L  | 1  | 4/30/2015 5:46:54 PM | 18974         |
| <b>EPA METHOD 8260B: VOLATILES</b> |        |        |      |       |    |                      | Analyst: cadg |
| Benzene                            | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| Toluene                            | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| Ethylbenzene                       | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| 1,2-Dichloroethane (EDC)           | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| 1,2-Dibromoethane (EDB)            | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| Carbon Tetrachloride               | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| Chloroform                         | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| 1,1-Dichloroethane                 | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| 1,1-Dichloroethene                 | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| Methylene Chloride                 | ND     | 3.0    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| 1,1,2,2-Tetrachloroethane          | ND     | 2.0    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| Tetrachloroethene (PCE)            | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| 1,1,1-Trichloroethane              | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| 1,1,2-Trichloroethane              | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| Trichloroethene (TCE)              | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| Vinyl chloride                     | ND     | 1.0    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| Xylenes, Total                     | ND     | 1.5    |      | µg/L  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| Surr: 1,2-Dichloroethane-d4        | 94.6   | 70-130 |      | %REC  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| Surr: 4-Bromofluorobenzene         | 104    | 70-130 |      | %REC  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| Surr: Dibromofluoromethane         | 99.0   | 70-130 |      | %REC  | 1  | 4/29/2015 6:29:57 PM | R25860        |
| Surr: Toluene-d8                   | 98.0   | 70-130 |      | %REC  | 1  | 4/29/2015 6:29:57 PM | R25860        |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                   |                                                      |
|--------------------|---------------------------------------------------|------------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
|                    | E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
|                    | J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
|                    | O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
|                    | R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
|                    | S Spike Recovery outside accepted recovery limits |                                                      |

## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 1504C24

Pace Project No.: 30147057

|                                  |                            |                                  |                                 |                      |
|----------------------------------|----------------------------|----------------------------------|---------------------------------|----------------------|
| <b>Sample:</b> 1504C24-001H R.O. | <b>Lab ID:</b> 30147057001 | <b>Collected:</b> 04/28/15 08:45 | <b>Received:</b> 05/01/15 09:35 | <b>Matrix:</b> Water |
| <b>PWS:</b>                      | <b>Site ID:</b>            | <b>Sample Type:</b>              |                                 |                      |

| Parameters | Method    | Act ± Unc (MDC) Carr Trac            | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|--------------------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.75 ± 0.849 (0.976)<br>C:NA T:60%   | pCi/L | 05/13/15 10:06 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 0.398 ± 0.412 (0.851)<br>C:72% T:77% | pCi/L | 05/11/15 17:31 | 15262-20-1 |      |

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL - RADIOCHEMISTRY

Project: 1504C24

Pace Project No.: 30147057

QC Batch: RADC/24384

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Associated Lab Samples: 30147057001

METHOD BLANK: 890250

Matrix: Water

Associated Lab Samples: 30147057001

| Parameter  | Act ± Unc (MDC) Carr Trac         | Units | Analyzed       | Qualifiers |
|------------|-----------------------------------|-------|----------------|------------|
| Radium-228 | 0.437 ± 0.426 (0.869) C:70% T:70% | pCi/L | 05/11/15 17:33 |            |

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL - RADIOCHEMISTRY

Project: 1504C24  
Pace Project No.: 30147057

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|                         |             |                       |                  |
|-------------------------|-------------|-----------------------|------------------|
| QC Batch:               | RADC/24322  | Analysis Method:      | EPA 903.1        |
| QC Batch Method:        | EPA 903.1   | Analysis Description: | 903.1 Radium-226 |
| Associated Lab Samples: | 30147057001 |                       |                  |

---

|               |        |         |       |
|---------------|--------|---------|-------|
| METHOD BLANK: | 888781 | Matrix: | Water |
|---------------|--------|---------|-------|

Associated Lab Samples: 30147057001

| Parameter  | Act ± Unc (MDC) Carr Trac        | Units | Analyzed       | Qualifiers |
|------------|----------------------------------|-------|----------------|------------|
| Radium-226 | 0.256 ± 0.438 (0.767) C:NA T:98% | pCi/L | 05/13/15 09:55 |            |

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

## REPORT OF LABORATORY ANALYSIS

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C24

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |            |        |                                 |             |      |                                                     |           |                    |          |      |
|------------|------------|--------|---------------------------------|-------------|------|-----------------------------------------------------|-----------|--------------------|----------|------|
| Sample ID  | <b>MB</b>  |        | SampType: <b>MBLK</b>           |             |      | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |           |                    |          |      |
| Client ID: | <b>PBW</b> |        | Batch ID: <b>R25851</b>         |             |      | RunNo: <b>25851</b>                                 |           |                    |          |      |
| Prep Date: |            |        | Analysis Date: <b>4/29/2015</b> |             |      | SeqNo: <b>766029</b>                                |           | Units: <b>mg/L</b> |          |      |
| Analyte    | Result     | PQL    | SPK value                       | SPK Ref Val | %REC | LowLimit                                            | HighLimit | %RPD               | RPDLimit | Qual |
| Aluminum   | ND         | 0.020  |                                 |             |      |                                                     |           |                    |          |      |
| Barium     | ND         | 0.0020 |                                 |             |      |                                                     |           |                    |          |      |
| Boron      | ND         | 0.040  |                                 |             |      |                                                     |           |                    |          |      |
| Chromium   | ND         | 0.0060 |                                 |             |      |                                                     |           |                    |          |      |
| Cobalt     | ND         | 0.0060 |                                 |             |      |                                                     |           |                    |          |      |
| Copper     | ND         | 0.0060 |                                 |             |      |                                                     |           |                    |          |      |
| Iron       | ND         | 0.020  |                                 |             |      |                                                     |           |                    |          |      |
| Manganese  | ND         | 0.0020 |                                 |             |      |                                                     |           |                    |          |      |
| Nickel     | ND         | 0.010  |                                 |             |      |                                                     |           |                    |          |      |
| Zinc       | ND         | 0.010  |                                 |             |      |                                                     |           |                    |          |      |

|            |             |        |                                 |             |      |                                                     |           |                    |          |      |
|------------|-------------|--------|---------------------------------|-------------|------|-----------------------------------------------------|-----------|--------------------|----------|------|
| Sample ID  | <b>LCS</b>  |        | SampType: <b>LCS</b>            |             |      | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |           |                    |          |      |
| Client ID: | <b>LCSW</b> |        | Batch ID: <b>R25851</b>         |             |      | RunNo: <b>25851</b>                                 |           |                    |          |      |
| Prep Date: |             |        | Analysis Date: <b>4/29/2015</b> |             |      | SeqNo: <b>766030</b>                                |           | Units: <b>mg/L</b> |          |      |
| Analyte    | Result      | PQL    | SPK value                       | SPK Ref Val | %REC | LowLimit                                            | HighLimit | %RPD               | RPDLimit | Qual |
| Aluminum   | 0.51        | 0.020  | 0.5000                          | 0           | 103  | 85                                                  | 115       |                    |          |      |
| Barium     | 0.47        | 0.0020 | 0.5000                          | 0           | 93.0 | 85                                                  | 115       |                    |          |      |
| Boron      | 0.49        | 0.040  | 0.5000                          | 0           | 97.9 | 85                                                  | 115       |                    |          |      |
| Chromium   | 0.48        | 0.0060 | 0.5000                          | 0           | 95.5 | 85                                                  | 115       |                    |          |      |
| Cobalt     | 0.47        | 0.0060 | 0.5000                          | 0           | 94.4 | 85                                                  | 115       |                    |          |      |
| Copper     | 0.47        | 0.0060 | 0.5000                          | 0           | 94.3 | 85                                                  | 115       |                    |          |      |
| Iron       | 0.47        | 0.020  | 0.5000                          | 0           | 94.6 | 85                                                  | 115       |                    |          |      |
| Manganese  | 0.44        | 0.0020 | 0.5000                          | 0           | 88.9 | 85                                                  | 115       |                    |          |      |
| Nickel     | 0.48        | 0.010  | 0.5000                          | 0           | 96.6 | 85                                                  | 115       |                    |          |      |
| Zinc       | 0.48        | 0.010  | 0.5000                          | 0           | 95.6 | 85                                                  | 115       |                    |          |      |

|            |            |        |                                 |             |      |                                                     |           |                    |          |      |
|------------|------------|--------|---------------------------------|-------------|------|-----------------------------------------------------|-----------|--------------------|----------|------|
| Sample ID  | <b>MB</b>  |        | SampType: <b>MBLK</b>           |             |      | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |           |                    |          |      |
| Client ID: | <b>PBW</b> |        | Batch ID: <b>R25881</b>         |             |      | RunNo: <b>25881</b>                                 |           |                    |          |      |
| Prep Date: |            |        | Analysis Date: <b>4/30/2015</b> |             |      | SeqNo: <b>767040</b>                                |           | Units: <b>mg/L</b> |          |      |
| Analyte    | Result     | PQL    | SPK value                       | SPK Ref Val | %REC | LowLimit                                            | HighLimit | %RPD               | RPDLimit | Qual |
| Cadmium    | ND         | 0.0020 |                                 |             |      |                                                     |           |                    |          |      |
| Molybdenum | ND         | 0.0080 |                                 |             |      |                                                     |           |                    |          |      |
| Silver     | ND         | 0.0050 |                                 |             |      |                                                     |           |                    |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C24

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |        |        |                          |             |                                              |          |             |      |          |      |
|------------|--------|--------|--------------------------|-------------|----------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |        | SampType: LCS            |             | TestCode: EPA Method 200.7: Dissolved Metals |          |             |      |          |      |
| Client ID: | LCSW   |        | Batch ID: R25881         |             | RunNo: 25881                                 |          |             |      |          |      |
| Prep Date: |        |        | Analysis Date: 4/30/2015 |             | SeqNo: 767041                                |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL    | SPK value                | SPK Ref Val | %REC                                         | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cadmium    | 0.51   | 0.0020 | 0.5000                   | 0           | 103                                          | 85       | 115         |      |          |      |
| Molybdenum | 0.49   | 0.0080 | 0.5000                   | 0           | 97.4                                         | 85       | 115         |      |          |      |
| Silver     | 0.088  | 0.0050 | 0.1000                   | 0           | 87.9                                         | 85       | 115         |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C24

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |        |        |                         |             |                                       |          |             |      |          |      |
|------------|--------|--------|-------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |        | SampType: LCS           |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | LCSW   |        | Batch ID: R25950        |             | RunNo: 25950                          |          |             |      |          |      |
| Prep Date: |        |        | Analysis Date: 5/5/2015 |             | SeqNo: 769414                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL    | SPK value               | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | 0.024  | 0.0010 | 0.02500                 | 0           | 96.4                                  | 85       | 115         |      |          |      |
| Selenium   | 0.024  | 0.0010 | 0.02500                 | 0           | 94.9                                  | 85       | 115         |      |          |      |
| Uranium    | 0.025  | 0.0010 | 0.02500                 | 0           | 98.7                                  | 85       | 115         |      |          |      |

|            |        |                         |           |             |                                       |          |             |      |          |      |
|------------|--------|-------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK          |           |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R25950        |           |             | RunNo: 25950                          |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 5/5/2015 |           |             | SeqNo: 769415                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                     | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | ND     | 0.0010                  |           |             |                                       |          |             |      |          |      |
| Selenium   | ND     | 0.0010                  |           |             |                                       |          |             |      |          |      |
| Uranium    | ND     | 0.0010                  |           |             |                                       |          |             |      |          |      |

|            |        |        |                         |             |                                       |          |             |      |          |      |
|------------|--------|--------|-------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |        | SampType: LCS           |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | LCSW   |        | Batch ID: R26042        |             | RunNo: 26042                          |          |             |      |          |      |
| Prep Date: |        |        | Analysis Date: 5/7/2015 |             | SeqNo: 772040                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL    | SPK value               | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Arsenic    | 0.024  | 0.0010 | 0.02500                 | 0           | 97.4                                  | 85       | 115         |      |          |      |

|            |        |                         |           |             |                                       |          |             |      |          |      |
|------------|--------|-------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK          |           |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R26042        |           |             | RunNo: 26042                          |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 5/7/2015 |           |             | SeqNo: 772041                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                     | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Arsenic    | ND     | 0.0010                  |           |             |                                       |          |             |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C24

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |           |                |           |             |                           |          |           |      |          |      |
|------------|-----------|----------------|-----------|-------------|---------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB-18982  | SampType:      | MBLK      | TestCode:   | EPA Method 245.1: Mercury |          |           |      |          |      |
| Client ID: | PBW       | Batch ID:      | 18982     | RunNo:      | 25930                     |          |           |      |          |      |
| Prep Date: | 4/30/2015 | Analysis Date: | 5/4/2015  | SeqNo:      | 768647                    | Units:   | mg/L      |      |          |      |
| Analyte    | Result    | PQL            | SPK value | SPK Ref Val | %REC                      | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | ND        | 0.00020        |           |             |                           |          |           |      |          |      |

|            |           |                |           |             |                           |          |           |      |          |      |
|------------|-----------|----------------|-----------|-------------|---------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS-18982 | SampType:      | LCS       | TestCode:   | EPA Method 245.1: Mercury |          |           |      |          |      |
| Client ID: | LCSW      | Batch ID:      | 18982     | RunNo:      | 25930                     |          |           |      |          |      |
| Prep Date: | 4/30/2015 | Analysis Date: | 5/4/2015  | SeqNo:      | 768648                    | Units:   | mg/L      |      |          |      |
| Analyte    | Result    | PQL            | SPK value | SPK Ref Val | %REC                      | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | 0.0051    | 0.00020        | 0.005000  | 0           | 102                       | 80       | 120       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C24

13-May-15

**Client:** Navajo Refining Company

**Project:** Monthly RO Reject

| Sample ID <b>MB</b>   | SampType: <b>MBLK</b>           |     | TestCode: <b>EPA Method 300.0: Anions</b> |             |                    |          |           |      |          |      |
|-----------------------|---------------------------------|-----|-------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Client ID: <b>PBW</b> | Batch ID: <b>R25872</b>         |     | RunNo: <b>25872</b>                       |             |                    |          |           |      |          |      |
| Prep Date:            | Analysis Date: <b>4/29/2015</b> |     | SeqNo: <b>766806</b>                      |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte               | Result                          | PQL | SPK value                                 | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

|                          |    |      |  |  |  |  |  |  |  |  |
|--------------------------|----|------|--|--|--|--|--|--|--|--|
| Fluoride                 | ND | 0.10 |  |  |  |  |  |  |  |  |
| Chloride                 | ND | 0.50 |  |  |  |  |  |  |  |  |
| Nitrogen, Nitrate (As N) | ND | 0.10 |  |  |  |  |  |  |  |  |

| Sample ID <b>LCS</b>   | SampType: <b>LCS</b>            |     | TestCode: <b>EPA Method 300.0: Anions</b> |             |                    |          |           |      |          |      |
|------------------------|---------------------------------|-----|-------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Client ID: <b>LCSW</b> | Batch ID: <b>R25872</b>         |     | RunNo: <b>25872</b>                       |             |                    |          |           |      |          |      |
| Prep Date:             | Analysis Date: <b>4/29/2015</b> |     | SeqNo: <b>766807</b>                      |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                | Result                          | PQL | SPK value                                 | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

|                          |      |      |        |   |      |    |     |  |  |  |
|--------------------------|------|------|--------|---|------|----|-----|--|--|--|
| Fluoride                 | 0.46 | 0.10 | 0.5000 | 0 | 92.4 | 90 | 110 |  |  |  |
| Chloride                 | 4.5  | 0.50 | 5.000  | 0 | 91.0 | 90 | 110 |  |  |  |
| Nitrogen, Nitrate (As N) | 2.4  | 0.10 | 2.500  | 0 | 96.2 | 90 | 110 |  |  |  |

| Sample ID <b>1504C24-001EMS</b> | SampType: <b>MS</b>             |     | TestCode: <b>EPA Method 300.0: Anions</b> |             |                    |          |           |      |          |      |
|---------------------------------|---------------------------------|-----|-------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Client ID: <b>R.O.</b>          | Batch ID: <b>R25872</b>         |     | RunNo: <b>25872</b>                       |             |                    |          |           |      |          |      |
| Prep Date:                      | Analysis Date: <b>4/29/2015</b> |     | SeqNo: <b>766822</b>                      |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                         | Result                          | PQL | SPK value                                 | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

|                          |     |      |        |       |      |      |     |  |  |   |
|--------------------------|-----|------|--------|-------|------|------|-----|--|--|---|
| Fluoride                 | 2.5 | 0.10 | 0.5000 | 2.238 | 55.2 | 66.1 | 113 |  |  | S |
| Nitrogen, Nitrate (As N) | 3.3 | 0.10 | 2.500  | 1.147 | 86.1 | 84   | 109 |  |  |   |

| Sample ID <b>1504C24-001EMSD</b> | SampType: <b>MSD</b>            |     | TestCode: <b>EPA Method 300.0: Anions</b> |             |                    |          |           |      |          |      |
|----------------------------------|---------------------------------|-----|-------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Client ID: <b>R.O.</b>           | Batch ID: <b>R25872</b>         |     | RunNo: <b>25872</b>                       |             |                    |          |           |      |          |      |
| Prep Date:                       | Analysis Date: <b>4/29/2015</b> |     | SeqNo: <b>766823</b>                      |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                          | Result                          | PQL | SPK value                                 | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

|                          |     |      |        |       |      |      |     |       |    |   |
|--------------------------|-----|------|--------|-------|------|------|-----|-------|----|---|
| Fluoride                 | 2.4 | 0.10 | 0.5000 | 2.238 | 30.4 | 66.1 | 113 | 5.06  | 20 | S |
| Nitrogen, Nitrate (As N) | 3.3 | 0.10 | 2.500  | 1.147 | 86.6 | 84   | 109 | 0.363 | 20 |   |

| Sample ID <b>MB</b>   | SampType: <b>MBLK</b>          |     | TestCode: <b>EPA Method 300.0: Anions</b> |             |                    |          |           |      |          |      |
|-----------------------|--------------------------------|-----|-------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Client ID: <b>PBW</b> | Batch ID: <b>R25994</b>        |     | RunNo: <b>25994</b>                       |             |                    |          |           |      |          |      |
| Prep Date:            | Analysis Date: <b>5/5/2015</b> |     | SeqNo: <b>770620</b>                      |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte               | Result                         | PQL | SPK value                                 | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

|         |    |      |  |  |  |  |  |  |  |  |
|---------|----|------|--|--|--|--|--|--|--|--|
| Sulfate | ND | 0.50 |  |  |  |  |  |  |  |  |
|---------|----|------|--|--|--|--|--|--|--|--|

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- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C24

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |        |                |           |             |                          |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | R25994    | RunNo:      | 25994                    |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 5/5/2015  | SeqNo:      | 770621                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Sulfate    | 9.7    | 0.50           | 10.00     | 0           | 97.2                     | 90       | 110       |      |          |      |

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WO#: 1504C24

13-May-15

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|                   |           |       |                          |             |                                      |          |             |      |          |      |
|-------------------|-----------|-------|--------------------------|-------------|--------------------------------------|----------|-------------|------|----------|------|
| Sample ID         | MB-18974  |       | SampType: MBLK           |             | TestCode: EPA Method 8011/504.1: EDB |          |             |      |          |      |
| Client ID:        | PBW       |       | Batch ID: 18974          |             | RunNo: 25898                         |          |             |      |          |      |
| Prep Date:        | 4/30/2015 |       | Analysis Date: 4/30/2015 |             | SeqNo: 767691                        |          | Units: µg/L |      |          |      |
| Analyte           | Result    | PQL   | SPK value                | SPK Ref Val | %REC                                 | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | ND        | 0.010 |                          |             |                                      |          |             |      |          |      |

|                   |           |       |                          |             |                                      |          |             |      |          |      |
|-------------------|-----------|-------|--------------------------|-------------|--------------------------------------|----------|-------------|------|----------|------|
| Sample ID         | LCS-18974 |       | SampType: LCS            |             | TestCode: EPA Method 8011/504.1: EDB |          |             |      |          |      |
| Client ID:        | LCSW      |       | Batch ID: 18974          |             | RunNo: 25898                         |          |             |      |          |      |
| Prep Date:        | 4/30/2015 |       | Analysis Date: 4/30/2015 |             | SeqNo: 767692                        |          | Units: µg/L |      |          |      |
| Analyte           | Result    | PQL   | SPK value                | SPK Ref Val | %REC                                 | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | 0.11      | 0.010 | 0.1000                   | 0           | 114                                  | 70       | 130         |      |          |      |

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WO#: 1504C24

13-May-15

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|                                |           |     |                          |             |                                          |          |             |      |          |      |
|--------------------------------|-----------|-----|--------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                      | MB-18947  |     | SampType: MBLK           |             | TestCode: EPA Method 8015D: Diesel Range |          |             |      |          |      |
| Client ID:                     | PBW       |     | Batch ID: 18947          |             | RunNo: 25835                             |          |             |      |          |      |
| Prep Date:                     | 4/29/2015 |     | Analysis Date: 4/29/2015 |             | SeqNo: 766304                            |          | Units: mg/L |      |          |      |
| Analyte                        | Result    | PQL | SPK value                | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND        | 1.0 |                          |             |                                          |          |             |      |          |      |
| Motor Oil Range Organics (MRO) | ND        | 5.0 |                          |             |                                          |          |             |      |          |      |
| Surr: DNOP                     | 1.1       |     | 1.000                    |             | 109                                      | 76.5     | 150         |      |          |      |

|                             |           |     |                          |             |                                          |          |             |      |          |      |
|-----------------------------|-----------|-----|--------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | LCS-18947 |     | SampType: LCS            |             | TestCode: EPA Method 8015D: Diesel Range |          |             |      |          |      |
| Client ID:                  | LCSW      |     | Batch ID: 18947          |             | RunNo: 25835                             |          |             |      |          |      |
| Prep Date:                  | 4/29/2015 |     | Analysis Date: 4/29/2015 |             | SeqNo: 766305                            |          | Units: mg/L |      |          |      |
| Analyte                     | Result    | PQL | SPK value                | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 5.2       | 1.0 | 5.000                    | 0           | 104                                      | 60.1     | 156         |      |          |      |
| Surr: DNOP                  | 0.57      |     | 0.5000                   |             | 115                                      | 76.5     | 150         |      |          |      |

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# QC SUMMARY REPORT

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WO#: 1504C24

13-May-15

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Project: Monthly RO Reject

|                               |        |                |           |             |                                  |          |           |      |          |      |
|-------------------------------|--------|----------------|-----------|-------------|----------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | 5ML RB | SampType:      | MBLK      | TestCode:   | EPA Method 8015D: Gasoline Range |          |           |      |          |      |
| Client ID:                    | PBW    | Batch ID:      | R25939    | RunNo:      | 25939                            |          |           |      |          |      |
| Prep Date:                    |        | Analysis Date: | 5/4/2015  | SeqNo:      | 768862                           | Units:   | mg/L      |      |          |      |
| Analyte                       | Result | PQL            | SPK value | SPK Ref Val | %REC                             | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND     | 0.050          |           |             |                                  |          |           |      |          |      |
| Surr: BFB                     | 18     |                | 20.00     |             | 88.4                             | 80       | 120       |      |          |      |

|                               |               |                |           |             |                                  |          |           |      |          |      |
|-------------------------------|---------------|----------------|-----------|-------------|----------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | 2.5UG GRO LCS | SampType:      | LCS       | TestCode:   | EPA Method 8015D: Gasoline Range |          |           |      |          |      |
| Client ID:                    | LCSW          | Batch ID:      | R25939    | RunNo:      | 25939                            |          |           |      |          |      |
| Prep Date:                    |               | Analysis Date: | 5/4/2015  | SeqNo:      | 768863                           | Units:   | mg/L      |      |          |      |
| Analyte                       | Result        | PQL            | SPK value | SPK Ref Val | %REC                             | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 0.46          | 0.050          | 0.5000    | 0           | 92.2                             | 80       | 120       |      |          |      |
| Surr: BFB                     | 18            |                | 20.00     |             | 91.1                             | 80       | 120       |      |          |      |

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WO#: 1504C24

13-May-15

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Project: Monthly RO Reject

|                            |          |                         |           |                                  |      |             |           |      |          |      |
|----------------------------|----------|-------------------------|-----------|----------------------------------|------|-------------|-----------|------|----------|------|
| Sample ID                  | MB-18997 | SampType: MBLK          |           | TestCode: EPA Method 8082: PCB's |      |             |           |      |          |      |
| Client ID:                 | PBW      | Batch ID: 18997         |           | RunNo: 25944                     |      |             |           |      |          |      |
| Prep Date:                 | 5/1/2015 | Analysis Date: 5/5/2015 |           | SeqNo: 769049                    |      | Units: µg/L |           |      |          |      |
| Analyte                    | Result   | PQL                     | SPK value | SPK Ref Val                      | %REC | LowLimit    | HighLimit | %RPD | RPDLimit | Qual |
| Aroclor 1016               | ND       | 1.0                     |           |                                  |      |             |           |      |          |      |
| Aroclor 1221               | ND       | 1.0                     |           |                                  |      |             |           |      |          |      |
| Aroclor 1232               | ND       | 1.0                     |           |                                  |      |             |           |      |          |      |
| Aroclor 1242               | ND       | 1.0                     |           |                                  |      |             |           |      |          |      |
| Aroclor 1248               | ND       | 1.0                     |           |                                  |      |             |           |      |          |      |
| Aroclor 1254               | ND       | 1.0                     |           |                                  |      |             |           |      |          |      |
| Aroclor 1260               | ND       | 1.0                     |           |                                  |      |             |           |      |          |      |
| Surr: Decachlorobiphenyl   | 2.2      |                         | 2.500     |                                  | 87.2 | 44.5        | 110       |      |          |      |
| Surr: Tetrachloro-m-xylene | 2.4      |                         | 2.500     |                                  | 97.6 | 31.8        | 95.7      |      |          | S    |

|                            |           |     |                         |             |                                  |          |             |      |          |      |
|----------------------------|-----------|-----|-------------------------|-------------|----------------------------------|----------|-------------|------|----------|------|
| Sample ID                  | LCS-18997 |     | SampType: LCS           |             | TestCode: EPA Method 8082: PCB's |          |             |      |          |      |
| Client ID:                 | LCSW      |     | Batch ID: 18997         |             | RunNo: 25944                     |          |             |      |          |      |
| Prep Date:                 | 5/1/2015  |     | Analysis Date: 5/5/2015 |             | SeqNo: 769942                    |          | Units: µg/L |      |          |      |
| Analyte                    | Result    | PQL | SPK value               | SPK Ref Val | %REC                             | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Aroclor 1016               | 4.9       | 1.0 | 5.000                   | 0           | 98.7                             | 22.6     | 127         |      |          |      |
| Aroclor 1260               | 5.1       | 1.0 | 5.000                   | 0           | 102                              | 20.4     | 122         |      |          |      |
| Surr: Decachlorobiphenyl   | 2.9       |     | 2.500                   |             | 114                              | 44.5     | 110         |      |          | S    |
| Surr: Tetrachloro-m-xylene | 4.2       |     | 2.500                   |             | 169                              | 31.8     | 95.7        |      |          | S    |

|                            |            |     |                         |             |                                  |          |             |      |          |      |
|----------------------------|------------|-----|-------------------------|-------------|----------------------------------|----------|-------------|------|----------|------|
| Sample ID                  | LCSD-18997 |     | SampType: LCSD          |             | TestCode: EPA Method 8082: PCB's |          |             |      |          |      |
| Client ID:                 | LCSS02     |     | Batch ID: 18997         |             | RunNo: 25944                     |          |             |      |          |      |
| Prep Date:                 | 5/1/2015   |     | Analysis Date: 5/5/2015 |             | SeqNo: 769944                    |          | Units: µg/L |      |          |      |
| Analyte                    | Result     | PQL | SPK value               | SPK Ref Val | %REC                             | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Aroclor 1016               | 4.6        | 1.0 | 5.000                   | 0           | 93.0                             | 22.6     | 127         | 6.03 | 26.9     |      |
| Aroclor 1260               | 5.3        | 1.0 | 5.000                   | 0           | 107                              | 20.4     | 122         | 4.45 | 29.1     |      |
| Surr: Decachlorobiphenyl   | 3.0        |     | 2.500                   |             | 118                              | 44.5     | 110         | 0    | 0        | S    |
| Surr: Tetrachloro-m-xylene | 3.8        |     | 2.500                   |             | 150                              | 31.8     | 95.7        | 0    | 0        | S    |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C24

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                             |           |     |                          |             |                                       |          |             |      |          |      |
|-----------------------------|-----------|-----|--------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | 100ng lcs |     | SampType: LCS            |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                  | LCSW      |     | Batch ID: R25860         |             | RunNo: 25860                          |          |             |      |          |      |
| Prep Date:                  |           |     | Analysis Date: 4/29/2015 |             | SeqNo: 766354                         |          | Units: µg/L |      |          |      |
| Analyte                     | Result    | PQL | SPK value                | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Benzene                     | 19        | 1.0 | 20.00                    | 0           | 95.6                                  | 70       | 130         |      |          |      |
| Toluene                     | 20        | 1.0 | 20.00                    | 0           | 98.9                                  | 70       | 130         |      |          |      |
| 1,1-Dichloroethene          | 22        | 1.0 | 20.00                    | 0           | 108                                   | 75.6     | 144         |      |          |      |
| Trichloroethene (TCE)       | 20        | 1.0 | 20.00                    | 0           | 98.3                                  | 70       | 130         |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.9       |     | 10.00                    |             | 98.9                                  | 70       | 130         |      |          |      |
| Surr: 4-Bromofluorobenzene  | 10        |     | 10.00                    |             | 103                                   | 70       | 130         |      |          |      |
| Surr: Dibromofluoromethane  | 10        |     | 10.00                    |             | 103                                   | 70       | 130         |      |          |      |
| Surr: Toluene-d8            | 10        |     | 10.00                    |             | 101                                   | 70       | 130         |      |          |      |

|                             |        |                          |           |             |                                       |          |             |      |          |      |
|-----------------------------|--------|--------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | 5mL rb | SampType: MBLK           |           |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                  | PBW    | Batch ID: R25860         |           |             | RunNo: 25860                          |          |             |      |          |      |
| Prep Date:                  |        | Analysis Date: 4/29/2015 |           |             | SeqNo: 766361                         |          | Units: µg/L |      |          |      |
| Analyte                     | Result | PQL                      | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Benzene                     | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| Toluene                     | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| Ethylbenzene                | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| 1,2-Dichloroethane (EDC)    | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| 1,2-Dibromoethane (EDB)     | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| Carbon Tetrachloride        | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| Chloroform                  | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| 1,1-Dichloroethane          | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| 1,1-Dichloroethene          | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| Methylene Chloride          | ND     | 3.0                      |           |             |                                       |          |             |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND     | 2.0                      |           |             |                                       |          |             |      |          |      |
| Tetrachloroethene (PCE)     | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| 1,1,1-Trichloroethane       | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| 1,1,2-Trichloroethane       | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| Trichloroethene (TCE)       | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| Vinyl chloride              | ND     | 1.0                      |           |             |                                       |          |             |      |          |      |
| Xylenes, Total              | ND     | 1.5                      |           |             |                                       |          |             |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.7    |                          | 10.00     |             | 96.8                                  | 70       | 130         |      |          |      |
| Surr: 4-Bromofluorobenzene  | 10     |                          | 10.00     |             | 104                                   | 70       | 130         |      |          |      |
| Surr: Dibromofluoromethane  | 10     |                          | 10.00     |             | 101                                   | 70       | 130         |      |          |      |
| Surr: Toluene-d8            | 9.9    |                          | 10.00     |             | 99.2                                  | 70       | 130         |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C24

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                        |                 |       |                                |             |                                        |          |                    |      |          |      |
|------------------------|-----------------|-------|--------------------------------|-------------|----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID              | <b>MB-18998</b> |       | SampType: <b>MBLK</b>          |             | TestCode: <b>EPA Method 8310: PAHs</b> |          |                    |      |          |      |
| Client ID:             | <b>PBW</b>      |       | Batch ID: <b>18998</b>         |             | RunNo: <b>25938</b>                    |          |                    |      |          |      |
| Prep Date:             | <b>5/1/2015</b> |       | Analysis Date: <b>5/5/2015</b> |             | SeqNo: <b>769391</b>                   |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                | Result          | PQL   | SPK value                      | SPK Ref Val | %REC                                   | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Naphthalene            | ND              | 2.0   |                                |             |                                        |          |                    |      |          |      |
| 1-Methylnaphthalene    | ND              | 2.0   |                                |             |                                        |          |                    |      |          |      |
| 2-Methylnaphthalene    | ND              | 2.0   |                                |             |                                        |          |                    |      |          |      |
| Acenaphthylene         | ND              | 2.5   |                                |             |                                        |          |                    |      |          |      |
| Acenaphthene           | ND              | 2.0   |                                |             |                                        |          |                    |      |          |      |
| Fluorene               | ND              | 0.80  |                                |             |                                        |          |                    |      |          |      |
| Phenanthrene           | ND              | 0.60  |                                |             |                                        |          |                    |      |          |      |
| Anthracene             | ND              | 0.60  |                                |             |                                        |          |                    |      |          |      |
| Fluoranthene           | ND              | 0.30  |                                |             |                                        |          |                    |      |          |      |
| Pyrene                 | ND              | 0.30  |                                |             |                                        |          |                    |      |          |      |
| Benz(a)anthracene      | ND              | 0.070 |                                |             |                                        |          |                    |      |          |      |
| Chrysene               | ND              | 0.20  |                                |             |                                        |          |                    |      |          |      |
| Benzo(b)fluoranthene   | ND              | 0.10  |                                |             |                                        |          |                    |      |          |      |
| Benzo(k)fluoranthene   | ND              | 0.070 |                                |             |                                        |          |                    |      |          |      |
| Benzo(a)pyrene         | ND              | 0.070 |                                |             |                                        |          |                    |      |          |      |
| Dibenz(a,h)anthracene  | ND              | 0.12  |                                |             |                                        |          |                    |      |          |      |
| Benzo(g,h,i)perylene   | ND              | 0.12  |                                |             |                                        |          |                    |      |          |      |
| Indeno(1,2,3-cd)pyrene | ND              | 0.25  |                                |             |                                        |          |                    |      |          |      |
| Surr: Benzo(e)pyrene   | 14              |       | 20.00                          |             | 71.8                                   | 30.8     | 125                |      |          |      |

|                      |                  |       |                                |             |                                        |          |                    |      |          |      |
|----------------------|------------------|-------|--------------------------------|-------------|----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID            | <b>LCS-18998</b> |       | SampType: <b>LCS</b>           |             | TestCode: <b>EPA Method 8310: PAHs</b> |          |                    |      |          |      |
| Client ID:           | <b>LCSW</b>      |       | Batch ID: <b>18998</b>         |             | RunNo: <b>25938</b>                    |          |                    |      |          |      |
| Prep Date:           | <b>5/1/2015</b>  |       | Analysis Date: <b>5/5/2015</b> |             | SeqNo: <b>769392</b>                   |          | Units: <b>µg/L</b> |      |          |      |
| Analyte              | Result           | PQL   | SPK value                      | SPK Ref Val | %REC                                   | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Naphthalene          | 55               | 2.0   | 80.00                          | 0           | 69.3                                   | 41       | 76.8               |      |          |      |
| 1-Methylnaphthalene  | 57               | 2.0   | 80.20                          | 0           | 71.0                                   | 24.7     | 81                 |      |          |      |
| 2-Methylnaphthalene  | 56               | 2.0   | 80.00                          | 0           | 70.4                                   | 17.4     | 81.9               |      |          |      |
| Acenaphthylene       | 60               | 2.5   | 80.20                          | 0           | 75.4                                   | 50.3     | 77.5               |      |          |      |
| Acenaphthene         | 57               | 2.0   | 80.00                          | 0           | 71.8                                   | 27.7     | 81.1               |      |          |      |
| Fluorene             | 5.8              | 0.80  | 8.020                          | 0           | 72.8                                   | 34.2     | 75.1               |      |          |      |
| Phenanthrene         | 2.9              | 0.60  | 4.020                          | 0           | 72.4                                   | 44.6     | 88.3               |      |          |      |
| Anthracene           | 2.9              | 0.60  | 4.020                          | 0           | 72.1                                   | 41.9     | 85.3               |      |          |      |
| Fluoranthene         | 6.1              | 0.30  | 8.020                          | 0           | 76.2                                   | 40.6     | 88                 |      |          |      |
| Pyrene               | 6.6              | 0.30  | 8.020                          | 0           | 82.8                                   | 41       | 86.6               |      |          |      |
| Benz(a)anthracene    | 0.62             | 0.070 | 0.8020                         | 0           | 77.3                                   | 43.8     | 86.7               |      |          |      |
| Chrysene             | 3.1              | 0.20  | 4.020                          | 0           | 76.9                                   | 44.5     | 80.7               |      |          |      |
| Benzo(b)fluoranthene | 0.81             | 0.10  | 1.002                          | 0           | 80.8                                   | 44.3     | 87.1               |      |          |      |
| Benzo(k)fluoranthene | 0.39             | 0.070 | 0.5000                         | 0           | 78.0                                   | 39.9     | 94.3               |      |          |      |

### Qualifiers:

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E Value above quantitation range  
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S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C24

13-May-15

**Client:** Navajo Refining Company

**Project:** Monthly RO Reject

|                        |           |       |           |                |          |          |           |           |                       |      |  |
|------------------------|-----------|-------|-----------|----------------|----------|----------|-----------|-----------|-----------------------|------|--|
| Sample ID              | LCS-18998 |       |           | SampType:      | LCS      |          |           | TestCode: | EPA Method 8310: PAHs |      |  |
| Client ID:             | LCSW      |       |           | Batch ID:      | 18998    |          |           | RunNo:    | 25938                 |      |  |
| Prep Date:             | 5/1/2015  |       |           | Analysis Date: | 5/5/2015 |          |           | SeqNo:    | 769392                |      |  |
|                        |           |       |           |                |          |          |           | Units:    | µg/L                  |      |  |
| Analyte                | Result    | PQL   | SPK value | SPK Ref Val    | %REC     | LowLimit | HighLimit | %RPD      | RPDLimit              | Qual |  |
| Benzo(a)pyrene         | 0.39      | 0.070 | 0.5020    | 0              | 77.7     | 44       | 86.5      |           |                       |      |  |
| Dibenz(a,h)anthracene  | 0.78      | 0.12  | 1.002     | 0              | 77.8     | 48.8     | 83.6      |           |                       |      |  |
| Benzo(g,h,i)perylene   | 0.83      | 0.12  | 1.000     | 0              | 83.0     | 43.6     | 84.5      |           |                       |      |  |
| Indeno(1,2,3-cd)pyrene | 1.6       | 0.25  | 2.004     | 0              | 77.3     | 49.2     | 91.1      |           |                       |      |  |
| Surr: Benzo(e)pyrene   | 21        |       | 20.00     |                | 106      | 30.8     | 125       |           |                       |      |  |

|                        |            |       |           |                |          |          |           |           |                       |      |  |
|------------------------|------------|-------|-----------|----------------|----------|----------|-----------|-----------|-----------------------|------|--|
| Sample ID              | LCSD-18998 |       |           | SampType:      | LCSD     |          |           | TestCode: | EPA Method 8310: PAHs |      |  |
| Client ID:             | LCSS02     |       |           | Batch ID:      | 18998    |          |           | RunNo:    | 25938                 |      |  |
| Prep Date:             | 5/1/2015   |       |           | Analysis Date: | 5/5/2015 |          |           | SeqNo:    | 769393                |      |  |
|                        |            |       |           |                |          |          |           | Units:    | µg/L                  |      |  |
| Analyte                | Result     | PQL   | SPK value | SPK Ref Val    | %REC     | LowLimit | HighLimit | %RPD      | RPDLimit              | Qual |  |
| Naphthalene            | 58         | 2.0   | 80.00     | 0              | 72.7     | 41       | 76.8      | 4.75      | 20                    |      |  |
| 1-Methylnaphthalene    | 60         | 2.0   | 80.20     | 0              | 74.4     | 24.7     | 81        | 4.68      | 20                    |      |  |
| 2-Methylnaphthalene    | 59         | 2.0   | 80.00     | 0              | 73.8     | 17.4     | 81.9      | 4.70      | 20                    |      |  |
| Acenaphthylene         | 63         | 2.5   | 80.20     | 0              | 78.7     | 50.3     | 77.5      | 4.29      | 20                    | S    |  |
| Acenaphthene           | 60         | 2.0   | 80.00     | 0              | 74.9     | 27.7     | 81.1      | 4.26      | 20                    |      |  |
| Fluorene               | 6.1        | 0.80  | 8.020     | 0              | 75.7     | 34.2     | 75.1      | 3.86      | 20                    | S    |  |
| Phenanthrene           | 3.1        | 0.60  | 4.020     | 0              | 76.1     | 44.6     | 88.3      | 5.03      | 24                    |      |  |
| Anthracene             | 3.0        | 0.60  | 4.020     | 0              | 75.9     | 41.9     | 85.3      | 5.04      | 20                    |      |  |
| Fluoranthene           | 6.4        | 0.30  | 8.020     | 0              | 79.9     | 40.6     | 88        | 4.79      | 20.9                  |      |  |
| Pyrene                 | 7.0        | 0.30  | 8.020     | 0              | 86.8     | 41       | 86.6      | 4.71      | 20.8                  | S    |  |
| Benz(a)anthracene      | 0.65       | 0.070 | 0.8020    | 0              | 81.0     | 43.8     | 86.7      | 4.72      | 20                    |      |  |
| Chrysene               | 3.3        | 0.20  | 4.020     | 0              | 80.8     | 44.5     | 80.7      | 5.05      | 20                    | S    |  |
| Benzo(b)fluoranthene   | 0.84       | 0.10  | 1.002     | 0              | 83.8     | 44.3     | 87.1      | 3.64      | 20.6                  |      |  |
| Benzo(k)fluoranthene   | 0.41       | 0.070 | 0.5000    | 0              | 82.0     | 39.9     | 94.3      | 5.00      | 20.8                  |      |  |
| Benzo(a)pyrene         | 0.41       | 0.070 | 0.5020    | 0              | 81.7     | 44       | 86.5      | 5.00      | 20                    |      |  |
| Dibenz(a,h)anthracene  | 0.83       | 0.12  | 1.002     | 0              | 82.8     | 48.8     | 83.6      | 6.21      | 20                    |      |  |
| Benzo(g,h,i)perylene   | 0.87       | 0.12  | 1.000     | 0              | 87.0     | 43.6     | 84.5      | 4.71      | 20                    | S    |  |
| Indeno(1,2,3-cd)pyrene | 1.6        | 0.25  | 2.004     | 0              | 81.3     | 49.2     | 91.1      | 5.03      | 20                    |      |  |
| Surr: Benzo(e)pyrene   | 22         |       | 20.00     |                | 112      | 30.8     | 125       | 0         |                       |      |  |

### Qualifiers:

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 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 P Sample pH Not In Range  
 RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C24

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                              |           |                          |           |             |                                          |          |             |      |          |      |
|------------------------------|-----------|--------------------------|-----------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                    | MB-18972  | SampType: MBLK           |           |             | TestCode: Total Phenolics by SW-846 9067 |          |             |      |          |      |
| Client ID:                   | PBW       | Batch ID: 18972          |           |             | RunNo: 25901                             |          |             |      |          |      |
| Prep Date:                   | 4/30/2015 | Analysis Date: 4/30/2015 |           |             | SeqNo: 767792                            |          | Units: µg/L |      |          |      |
| Analyte                      | Result    | PQL                      | SPK value | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | ND        | 2.5                      |           |             |                                          |          |             |      |          |      |

|                              |           |     |                          |             |                                          |          |             |      |          |      |
|------------------------------|-----------|-----|--------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                    | LCS-18972 |     | SampType: LCS            |             | TestCode: Total Phenolics by SW-846 9067 |          |             |      |          |      |
| Client ID:                   | LCSW      |     | Batch ID: 18972          |             | RunNo: 25901                             |          |             |      |          |      |
| Prep Date:                   | 4/30/2015 |     | Analysis Date: 4/30/2015 |             | SeqNo: 767793                            |          | Units: µg/L |      |          |      |
| Analyte                      | Result    | PQL | SPK value                | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | 22        | 2.5 | 20.00                    | 0           | 109                                      | 75.7     | 126         |      |          |      |

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P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C24

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |           |        |                |             |      |           |                                 |      |          |      |  |
|------------|-----------|--------|----------------|-------------|------|-----------|---------------------------------|------|----------|------|--|
| Sample ID  | MB-R26153 |        | SampType:      | MBLK        |      | TestCode: | EPA 335.4: Total Cyanide Subbed |      |          |      |  |
| Client ID: | PBW       |        | Batch ID:      | R26153      |      | RunNo:    | 26153                           |      |          |      |  |
| Prep Date: |           |        | Analysis Date: | 5/5/2015    |      | SeqNo:    | 775896                          |      | Units:   | mg/L |  |
| Analyte    | Result    | PQL    | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit | Qual |  |
| Cyanide    | ND        | 0.0100 |                |             |      |           |                                 |      |          |      |  |

|            |            |     |                         |             |                                           |          |             |      |          |      |
|------------|------------|-----|-------------------------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-R26153 |     | SampType: LCS           |             | TestCode: EPA 335.4: Total Cyanide Subbed |          |             |      |          |      |
| Client ID: | LCSW       |     | Batch ID: R26153        |             | RunNo: 26153                              |          |             |      |          |      |
| Prep Date: |            |     | Analysis Date: 5/5/2015 |             | SeqNo: 775897                             |          | Units: mg/L |      |          |      |
| Analyte    | Result     | PQL | SPK value               | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cyanide    | 0.500      |     | 0.5000                  | 0           | 100                                       | 90       | 110         |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504C24

13-May-15

Client: Navajo Refining Company

Project: Monthly RO Reject

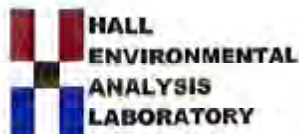
|                        |           |      |                         |             |                                               |          |             |      |          |      |
|------------------------|-----------|------|-------------------------|-------------|-----------------------------------------------|----------|-------------|------|----------|------|
| Sample ID              | MB-18979  |      | SampType: MBLK          |             | TestCode: SM2540C MOD: Total Dissolved Solids |          |             |      |          |      |
| Client ID:             | PBW       |      | Batch ID: 18979         |             | RunNo: 25912                                  |          |             |      |          |      |
| Prep Date:             | 4/30/2015 |      | Analysis Date: 5/1/2015 |             | SeqNo: 768004                                 |          | Units: mg/L |      |          |      |
| Analyte                | Result    | PQL  | SPK value               | SPK Ref Val | %REC                                          | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Total Dissolved Solids | ND        | 20.0 |                         |             |                                               |          |             |      |          |      |

|                        |           |      |                         |             |                                               |          |             |      |          |      |
|------------------------|-----------|------|-------------------------|-------------|-----------------------------------------------|----------|-------------|------|----------|------|
| Sample ID              | LCS-18979 |      | SampType: LCS           |             | TestCode: SM2540C MOD: Total Dissolved Solids |          |             |      |          |      |
| Client ID:             | LCSW      |      | Batch ID: 18979         |             | RunNo: 25912                                  |          |             |      |          |      |
| Prep Date:             | 4/30/2015 |      | Analysis Date: 5/1/2015 |             | SeqNo: 768005                                 |          | Units: mg/L |      |          |      |
| Analyte                | Result    | PQL  | SPK value               | SPK Ref Val | %REC                                          | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Total Dissolved Solids | 999       | 20.0 | 1000                    | 0           | 99.9                                          | 80       | 120         |      |          |      |

### Qualifiers:

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Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: NAVAJO REFINING CO

Work Order Number: 1504C24

ReptNo: 1

Received by/date:

*CS* 04/29/15

Logged By: Lindsay Mangin

4/29/2015 9:15:00 AM

*July Hago*

Completed By: Lindsay Mangin

4/29/2015 10:14:50 AM

*July Hago*

Reviewed By:

*CS* 04/29/15

### Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

*CS 04/29/15 Sample -002A*  
No VOA Vials ☐ (2 of 2) has a bubble

# of preserved bottles checked for pH: 5, 1  
(2 of 12 unless noted)

Adjusted? VLO

Checked by: *CS*

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified

Date

By Whom

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding

Client Instructions

17. Additional remarks:

### 18. Cooler Information

| Cooler No | Temp $^{\circ}\text{C}$ | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|-------------------------|-----------|-------------|---------|-----------|-----------|
| 1         | 1.0                     | Good      | Yes         |         |           |           |

# Chain-of-Custody Record

Client: Navajo Refining Co

Mailing Address P O Box 159 Artesia,

NM 88211-0159

Phone #: 575-748-3311

email or Fax#: 575-746-5451

QA/QC Package

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time

X Standard ☐ Rush

Project Name:

Monthly RO Reject

Project #: P.O. # 167796

Project Manager

Scott Denton / Robert Combs

Sampler: Elizabeth Salisbury

On Ice: ☒ Yes ☐ No

Sample Temperature 100 C

Date Time Matrix Sample Request ID

4/28/15 8:45AM

Aq

R.O.

4/28/15 8:45AM

4/28/15 8:45AM

4/28/15 8:45AM

4/28/15 8:45AM

4/28/15 8:45AM

4/28/15 8:45AM

4/28/15 8:45AM

4/28/15 8:45AM

4/28/15 8:45AM

1 Trip Blank

CS 04/28/15

Date Time

4/28/15 10:45 AM

Date Time

4/28/15 09:15

Relinquished by: Elizabeth Salisbury

Relinquished by: Elizabeth Salisbury

Received by:

Received by:

Remarks: Send results to Scott Denton, Mike Holder, Micki

Schultz, Robert Combs and Andrew Contreras.



**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel 505-345-3975 Fax 505-345-4107

Analysis Request

See Attachment



FOURTH QUARTER 2014

[illegible][illegible]



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

June 22, 2015

Robert Combs  
Navajo Refining Company  
P.O. Box 159  
Artesia, NM 88211-0159  
TEL: (575) 748-3311  
FAX

RE: Monthly Temporary RO Reject

OrderNo.: 1506316

Dear Robert Combs:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/6/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1506316

Date Reported: 6/22/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** South Field RO Reject Discharge

**Project:** Monthly Temporary RO Reject

**Collection Date:** 6/5/2015 1:54:00 PM

**Lab ID:** 1506316-001

**Matrix:** AQUEOUS

**Received Date:** 6/6/2015 12:15:00 PM

| Analyses                                              | Result | RL      | Qual | Units    | DF  | Date Analyzed         | Batch               |
|-------------------------------------------------------|--------|---------|------|----------|-----|-----------------------|---------------------|
| <b>EPA 200.8: DISSOLVED METALS</b>                    |        |         |      |          |     |                       | Analyst: <b>DBD</b> |
| Arsenic                                               | ND     | 0.0050  |      | mg/L     | 5   | 6/17/2015 7:44:15 PM  | R26904              |
| Lead                                                  | ND     | 0.0010  |      | mg/L     | 1   | 6/16/2015 7:43:36 PM  | R26876              |
| Selenium                                              | 0.0099 | 0.0010  |      | mg/L     | 1   | 6/16/2015 7:43:36 PM  | R26876              |
| Uranium                                               | 0.0082 | 0.0010  |      | mg/L     | 1   | 6/16/2015 7:43:36 PM  | R26876              |
| <b>EPA 903.1: RA 226 AND EPA 904.0: RA 228-SUBBED</b> |        |         |      |          |     |                       | Analyst: <b>SUB</b> |
| Radium-226                                            | 2.04   | 0.578   |      | pCi/L    | 1   | 6/16/2015             | R26972              |
| Radium-226 ±                                          | 0.849  | 0.578   |      | pCi/L    | 1   | 6/16/2015             | R26972              |
| Radium-228                                            | 0.384  | 0.696   |      | pCi/L    | 1   | 6/16/2015             | R26972              |
| Radium-228 ±                                          | 0.345  | 0.696   |      | pCi/L    | 1   | 6/16/2015             | R26972              |
| <b>EPA METHOD 300.0: ANIONS</b>                       |        |         |      |          |     |                       | Analyst: <b>LGT</b> |
| Fluoride                                              | 4.6    | 2.0     | *    | mg/L     | 20  | 6/8/2015 1:22:42 PM   | R26695              |
| Chloride                                              | 460    | 50      |      | mg/L     | 100 | 6/10/2015 1:28:53 AM  | R26721              |
| Sulfate                                               | 2300   | 50      |      | mg/L     | 100 | 6/10/2015 1:28:53 AM  | R26721              |
| Nitrate+Nitrite as N                                  | 1.8    | 1.0     |      | mg/L     | 5   | 6/9/2015 4:16:18 AM   | R26695              |
| <b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>            |        |         |      |          |     |                       | Analyst: <b>KS</b>  |
| Total Dissolved Solids                                | 4710   | 20.0    | *    | mg/L     | 1   | 6/10/2015 12:32:00 PM | 19636               |
| <b>EPA 335.4: TOTAL CYANIDE SUBBED</b>                |        |         |      |          |     |                       | Analyst: <b>SUB</b> |
| Cyanide                                               | ND     | 0.0100  |      | mg/L     | 1   | 6/18/2015             | R26972              |
| <b>SM4500-H+B: PH</b>                                 |        |         |      |          |     |                       | Analyst: <b>JRR</b> |
| pH                                                    | 8.03   | 1.68    | H    | pH units | 1   | 6/9/2015 9:57:39 PM   | R26740              |
| <b>EPA METHOD 200.7: DISSOLVED METALS</b>             |        |         |      |          |     |                       | Analyst: <b>JLF</b> |
| Aluminum                                              | ND     | 0.020   |      | mg/L     | 1   | 6/16/2015 5:05:13 PM  | R26882              |
| Barium                                                | 0.080  | 0.0020  |      | mg/L     | 1   | 6/16/2015 5:05:13 PM  | R26882              |
| Boron                                                 | 0.098  | 0.040   |      | mg/L     | 1   | 6/16/2015 5:05:13 PM  | R26882              |
| Cadmium                                               | ND     | 0.0020  |      | mg/L     | 1   | 6/16/2015 5:05:13 PM  | R26882              |
| Chromium                                              | 0.0067 | 0.0060  |      | mg/L     | 1   | 6/16/2015 5:05:13 PM  | R26882              |
| Cobalt                                                | ND     | 0.0060  |      | mg/L     | 1   | 6/16/2015 5:05:13 PM  | R26882              |
| Copper                                                | ND     | 0.0060  |      | mg/L     | 1   | 6/16/2015 5:05:13 PM  | R26882              |
| Iron                                                  | 0.040  | 0.020   |      | mg/L     | 1   | 6/16/2015 5:05:13 PM  | R26882              |
| Manganese                                             | 0.012  | 0.0020  |      | mg/L     | 1   | 6/16/2015 5:05:13 PM  | R26882              |
| Molybdenum                                            | ND     | 0.0080  |      | mg/L     | 1   | 6/16/2015 5:05:13 PM  | R26882              |
| Nickel                                                | ND     | 0.010   |      | mg/L     | 1   | 6/16/2015 5:05:13 PM  | R26882              |
| Silver                                                | ND     | 0.0050  |      | mg/L     | 1   | 6/16/2015 5:05:13 PM  | R26882              |
| Zinc                                                  | 0.030  | 0.010   |      | mg/L     | 1   | 6/16/2015 5:05:13 PM  | R26882              |
| <b>EPA METHOD 245.1: MERCURY</b>                      |        |         |      |          |     |                       | Analyst: <b>MED</b> |
| Mercury                                               | ND     | 0.00020 |      | mg/L     | 1   | 6/9/2015 3:13:06 PM   | 19630               |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |   |                                                 |    |                                                    |              |
|--------------------|---|-------------------------------------------------|----|----------------------------------------------------|--------------|
| <b>Qualifiers:</b> | * | Value exceeds Maximum Contaminant Level.        | B  | Analyte detected in the associated Method Blank    | Page 1 of 21 |
|                    | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |              |
|                    | J | Analyte detected below quantitation limits      | ND | Not Detected at the Reporting Limit                |              |
|                    | O | RSD is greater than RSDlimit                    | P  | Sample pH Not In Range                             |              |
|                    | R | RPD outside accepted recovery limits            | RL | Reporting Detection Limit                          |              |
|                    | S | Spike Recovery outside accepted recovery limits |    |                                                    |              |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1506316

Date Reported: 6/22/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** South Field RO Reject Discharge

**Project:** Monthly Temporary RO Reject

**Collection Date:** 6/5/2015 1:54:00 PM

**Lab ID:** 1506316-001

**Matrix:** AQUEOUS

**Received Date:** 6/6/2015 12:15:00 PM

| Analyses                                | Result | RL        | Qual | Units | DF | Date Analyzed         | Batch        |
|-----------------------------------------|--------|-----------|------|-------|----|-----------------------|--------------|
| <b>EPA METHOD 8011/504.1: EDB</b>       |        |           |      |       |    |                       | Analyst: JME |
| 1,2-Dibromoethane                       | ND     | 0.010     |      | µg/L  | 1  | 6/11/2015 5:16:00 PM  | 19674        |
| <b>EPA METHOD 8082: PCB'S</b>           |        |           |      |       |    |                       | Analyst: SCC |
| Aroclor 1016                            | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 2:49:54 PM  | 19626        |
| Aroclor 1221                            | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 2:49:54 PM  | 19626        |
| Aroclor 1232                            | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 2:49:54 PM  | 19626        |
| Aroclor 1242                            | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 2:49:54 PM  | 19626        |
| Aroclor 1248                            | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 2:49:54 PM  | 19626        |
| Aroclor 1254                            | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 2:49:54 PM  | 19626        |
| Aroclor 1260                            | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 2:49:54 PM  | 19626        |
| Surr: Decachlorobiphenyl                | 93.6   | 44.5-110  |      | %REC  | 1  | 6/12/2015 2:49:54 PM  | 19626        |
| Surr: Tetrachloro-m-xylene              | 82.8   | 31.8-95.7 |      | %REC  | 1  | 6/12/2015 2:49:54 PM  | 19626        |
| <b>EPA METHOD 8015D: DIESEL RANGE</b>   |        |           |      |       |    |                       | Analyst: KJH |
| Diesel Range Organics (DRO)             | ND     | 1.0       |      | mg/L  | 1  | 6/9/2015 10:08:27 PM  | 19616        |
| Motor Oil Range Organics (MRO)          | ND     | 5.0       |      | mg/L  | 1  | 6/9/2015 10:08:27 PM  | 19616        |
| Surr: DNOP                              | 105    | 76.5-150  |      | %REC  | 1  | 6/9/2015 10:08:27 PM  | 19616        |
| <b>EPA METHOD 8015D: GASOLINE RANGE</b> |        |           |      |       |    |                       | Analyst: NSB |
| Gasoline Range Organics (GRO)           | ND     | 0.050     |      | mg/L  | 1  | 6/10/2015 6:06:50 PM  | R26753       |
| Surr: BFB                               | 90.7   | 57.8-137  |      | %REC  | 1  | 6/10/2015 6:06:50 PM  | R26753       |
| <b>EPA METHOD 8310: PAHS</b>            |        |           |      |       |    |                       | Analyst: SCC |
| Naphthalene                             | ND     | 2.0       |      | µg/L  | 1  | 6/16/2015 12:08:51 PM | 19627        |
| 1-Methylnaphthalene                     | ND     | 2.0       |      | µg/L  | 1  | 6/16/2015 12:08:51 PM | 19627        |
| 2-Methylnaphthalene                     | ND     | 2.0       |      | µg/L  | 1  | 6/16/2015 12:08:51 PM | 19627        |
| Benzo(a)pyrene                          | ND     | 0.070     |      | µg/L  | 1  | 6/16/2015 12:08:51 PM | 19627        |
| Surr: Benzo(e)pyrene                    | 66.6   | 37.2-136  |      | %REC  | 1  | 6/16/2015 12:08:51 PM | 19627        |
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |           |      |       |    |                       | Analyst: DJF |
| Benzene                                 | ND     | 1.0       |      | µg/L  | 1  | 6/13/2015 8:29:41 AM  | R26817       |
| Toluene                                 | ND     | 1.0       |      | µg/L  | 1  | 6/13/2015 8:29:41 AM  | R26817       |
| Ethylbenzene                            | ND     | 1.0       |      | µg/L  | 1  | 6/13/2015 8:29:41 AM  | R26817       |
| 1,2-Dichloroethane (EDC)                | ND     | 1.0       |      | µg/L  | 1  | 6/13/2015 8:29:41 AM  | R26817       |
| 1,2-Dibromoethane (EDB)                 | ND     | 1.0       |      | µg/L  | 1  | 6/13/2015 8:29:41 AM  | R26817       |
| Carbon Tetrachloride                    | ND     | 1.0       |      | µg/L  | 1  | 6/13/2015 8:29:41 AM  | R26817       |
| Chloroform                              | ND     | 1.0       |      | µg/L  | 1  | 6/13/2015 8:29:41 AM  | R26817       |
| 1,1-Dichloroethane                      | ND     | 1.0       |      | µg/L  | 1  | 6/13/2015 8:29:41 AM  | R26817       |
| 1,1-Dichloroethene                      | ND     | 1.0       |      | µg/L  | 1  | 6/13/2015 8:29:41 AM  | R26817       |
| Methylene Chloride                      | ND     | 3.0       |      | µg/L  | 1  | 6/13/2015 8:29:41 AM  | R26817       |
| 1,1,2,2-Tetrachloroethane               | ND     | 2.0       |      | µg/L  | 1  | 6/13/2015 8:29:41 AM  | R26817       |
| Tetrachloroethene (PCE)                 | ND     | 1.0       |      | µg/L  | 1  | 6/13/2015 8:29:41 AM  | R26817       |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                   |                                                      |
|--------------------|---------------------------------------------------|------------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
|                    | E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
|                    | J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
|                    | O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
|                    | R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
|                    | S Spike Recovery outside accepted recovery limits |                                                      |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1506316

Date Reported: 6/22/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** South Field RO Reject Discharge

**Project:** Monthly Temporary RO Reject

**Collection Date:** 6/5/2015 1:54:00 PM

**Lab ID:** 1506316-001

**Matrix:** AQUEOUS

**Received Date:** 6/6/2015 12:15:00 PM

| Analyses                              | Result | RL     | Qual | Units               | DF | Date Analyzed        | Batch  |
|---------------------------------------|--------|--------|------|---------------------|----|----------------------|--------|
| <b>EPA METHOD 8260B: VOLATILES</b>    |        |        |      | Analyst: <b>DJF</b> |    |                      |        |
| 1,1,1-Trichloroethane                 | ND     | 1.0    |      | µg/L                | 1  | 6/13/2015 8:29:41 AM | R26817 |
| 1,1,2-Trichloroethane                 | ND     | 1.0    |      | µg/L                | 1  | 6/13/2015 8:29:41 AM | R26817 |
| Trichloroethene (TCE)                 | ND     | 1.0    |      | µg/L                | 1  | 6/13/2015 8:29:41 AM | R26817 |
| Vinyl chloride                        | ND     | 1.0    |      | µg/L                | 1  | 6/13/2015 8:29:41 AM | R26817 |
| Xylenes, Total                        | ND     | 1.5    |      | µg/L                | 1  | 6/13/2015 8:29:41 AM | R26817 |
| Surr: 1,2-Dichloroethane-d4           | 90.0   | 70-130 |      | %REC                | 1  | 6/13/2015 8:29:41 AM | R26817 |
| Surr: 4-Bromofluorobenzene            | 101    | 70-130 |      | %REC                | 1  | 6/13/2015 8:29:41 AM | R26817 |
| Surr: Dibromofluoromethane            | 96.9   | 70-130 |      | %REC                | 1  | 6/13/2015 8:29:41 AM | R26817 |
| Surr: Toluene-d8                      | 100    | 70-130 |      | %REC                | 1  | 6/13/2015 8:29:41 AM | R26817 |
| <b>TOTAL PHENOLICS BY SW-846 9067</b> |        |        |      | Analyst: <b>SCC</b> |    |                      |        |
| Phenolics, Total Recoverable          | ND     | 2.5    |      | µg/L                | 1  | 6/18/2015            | 19794  |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |   |                                                 |    |                                                    |              |
|--------------------|---|-------------------------------------------------|----|----------------------------------------------------|--------------|
| <b>Qualifiers:</b> | * | Value exceeds Maximum Contaminant Level.        | B  | Analyte detected in the associated Method Blank    | Page 3 of 21 |
|                    | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |              |
|                    | J | Analyte detected below quantitation limits      | ND | Not Detected at the Reporting Limit                |              |
|                    | O | RSD is greater than RSDlimit                    | P  | Sample pH Not In Range                             |              |
|                    | R | RPD outside accepted recovery limits            | RL | Reporting Detection Limit                          |              |
|                    | S | Spike Recovery outside accepted recovery limits |    |                                                    |              |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1506316

Date Reported: 6/22/2015

CLIENT: Navajo Refining Company

Client Sample ID: Trip Blank

Project: Monthly Temporary RO Reject

Collection Date:

Lab ID: 1506316-002

Matrix: TRIP BLANK

Received Date: 6/6/2015 12:15:00 PM

| Analyses                    | Result | RL     | Qual | Units | DF | Date Analyzed        | Batch  |
|-----------------------------|--------|--------|------|-------|----|----------------------|--------|
| EPA METHOD 8260B: VOLATILES |        |        |      |       |    | Analyst: DJF         |        |
| Benzene                     | ND     | 1.0    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| Toluene                     | ND     | 1.0    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| Ethylbenzene                | ND     | 1.0    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| 1,2-Dichloroethane (EDC)    | ND     | 1.0    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| 1,2-Dibromoethane (EDB)     | ND     | 1.0    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| Carbon Tetrachloride        | ND     | 1.0    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| Chloroform                  | ND     | 1.0    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| 1,1-Dichloroethane          | ND     | 1.0    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| 1,1-Dichloroethene          | ND     | 1.0    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| Methylene Chloride          | ND     | 3.0    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| 1,1,2,2-Tetrachloroethane   | ND     | 2.0    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| Tetrachloroethene (PCE)     | ND     | 1.0    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| 1,1,1-Trichloroethane       | ND     | 1.0    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| 1,1,2-Trichloroethane       | ND     | 1.0    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| Trichloroethene (TCE)       | ND     | 1.0    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| Vinyl chloride              | ND     | 1.0    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| Xylenes, Total              | ND     | 1.5    |      | µg/L  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| Surr: 1,2-Dichloroethane-d4 | 95.4   | 70-130 |      | %REC  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| Surr: 4-Bromofluorobenzene  | 98.6   | 70-130 |      | %REC  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| Surr: Dibromofluoromethane  | 95.4   | 70-130 |      | %REC  | 1  | 6/13/2015 9:25:05 AM | R26817 |
| Surr: Toluene-d8            | 98.5   | 70-130 |      | %REC  | 1  | 6/13/2015 9:25:05 AM | R26817 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |   |                                                 |    |                                                    |              |
|-------------|---|-------------------------------------------------|----|----------------------------------------------------|--------------|
| Qualifiers: | * | Value exceeds Maximum Contaminant Level.        | B  | Analyte detected in the associated Method Blank    | Page 4 of 21 |
|             | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |              |
|             | J | Analyte detected below quantitation limits      | ND | Not Detected at the Reporting Limit                |              |
|             | O | RSD is greater than RSDlimit                    | P  | Sample pH Not In Range                             |              |
|             | R | RPD outside accepted recovery limits            | RL | Reporting Detection Limit                          |              |
|             | S | Spike Recovery outside accepted recovery limits |    |                                                    |              |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506316

22-Jun-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary RO Reject

|                       |                                 |        |           |                                                     |      |                    |           |      |          |      |
|-----------------------|---------------------------------|--------|-----------|-----------------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>MB</b>   | SampType: <b>MBLK</b>           |        |           | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |      |                    |           |      |          |      |
| Client ID: <b>PBW</b> | Batch ID: <b>R26882</b>         |        |           | RunNo: <b>26882</b>                                 |      |                    |           |      |          |      |
| Prep Date:            | Analysis Date: <b>6/16/2015</b> |        |           | SeqNo: <b>802272</b>                                |      | Units: <b>mg/L</b> |           |      |          |      |
| Analyte               | Result                          | PQL    | SPK value | SPK Ref Val                                         | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum              | ND                              | 0.020  |           |                                                     |      |                    |           |      |          |      |
| Barium                | ND                              | 0.0020 |           |                                                     |      |                    |           |      |          |      |
| Boron                 | ND                              | 0.040  |           |                                                     |      |                    |           |      |          |      |
| Cadmium               | ND                              | 0.0020 |           |                                                     |      |                    |           |      |          |      |
| Chromium              | ND                              | 0.0060 |           |                                                     |      |                    |           |      |          |      |
| Cobalt                | ND                              | 0.0060 |           |                                                     |      |                    |           |      |          |      |
| Copper                | ND                              | 0.0060 |           |                                                     |      |                    |           |      |          |      |
| Iron                  | ND                              | 0.020  |           |                                                     |      |                    |           |      |          |      |
| Manganese             | ND                              | 0.0020 |           |                                                     |      |                    |           |      |          |      |
| Molybdenum            | ND                              | 0.0080 |           |                                                     |      |                    |           |      |          |      |
| Nickel                | ND                              | 0.010  |           |                                                     |      |                    |           |      |          |      |
| Silver                | ND                              | 0.0050 |           |                                                     |      |                    |           |      |          |      |
| Zinc                  | ND                              | 0.010  |           |                                                     |      |                    |           |      |          |      |

|                        |                                 |        |           |                                                     |      |                    |           |      |          |      |
|------------------------|---------------------------------|--------|-----------|-----------------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>LCS</b>   | SampType: <b>LCS</b>            |        |           | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |      |                    |           |      |          |      |
| Client ID: <b>LCSW</b> | Batch ID: <b>R26882</b>         |        |           | RunNo: <b>26882</b>                                 |      |                    |           |      |          |      |
| Prep Date:             | Analysis Date: <b>6/16/2015</b> |        |           | SeqNo: <b>802273</b>                                |      | Units: <b>mg/L</b> |           |      |          |      |
| Analyte                | Result                          | PQL    | SPK value | SPK Ref Val                                         | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum               | 0.53                            | 0.020  | 0.5000    | 0                                                   | 107  | 85                 | 115       |      |          |      |
| Barium                 | 0.50                            | 0.0020 | 0.5000    | 0                                                   | 99.3 | 85                 | 115       |      |          |      |
| Boron                  | 0.53                            | 0.040  | 0.5000    | 0                                                   | 105  | 85                 | 115       |      |          |      |
| Cadmium                | 0.54                            | 0.0020 | 0.5000    | 0                                                   | 107  | 85                 | 115       |      |          |      |
| Chromium               | 0.51                            | 0.0060 | 0.5000    | 0                                                   | 101  | 85                 | 115       |      |          |      |
| Cobalt                 | 0.52                            | 0.0060 | 0.5000    | 0                                                   | 103  | 85                 | 115       |      |          |      |
| Copper                 | 0.49                            | 0.0060 | 0.5000    | 0                                                   | 97.4 | 85                 | 115       |      |          |      |
| Iron                   | 0.50                            | 0.020  | 0.5000    | 0                                                   | 99.7 | 85                 | 115       |      |          |      |
| Manganese              | 0.48                            | 0.0020 | 0.5000    | 0                                                   | 96.4 | 85                 | 115       |      |          |      |
| Molybdenum             | 0.51                            | 0.0080 | 0.5000    | 0                                                   | 102  | 85                 | 115       |      |          |      |
| Nickel                 | 0.50                            | 0.010  | 0.5000    | 0                                                   | 100  | 85                 | 115       |      |          |      |
| Silver                 | 0.10                            | 0.0050 | 0.1000    | 0                                                   | 101  | 85                 | 115       |      |          |      |
| Zinc                   | 0.51                            | 0.010  | 0.5000    | 0                                                   | 101  | 85                 | 115       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506316

22-Jun-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary RO Reject

|            |        |         |                          |             |                                       |          |             |      |          |      |
|------------|--------|---------|--------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |         | SampType: LCS            |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | LCSW   |         | Batch ID: R26876         |             | RunNo: 26876                          |          |             |      |          |      |
| Prep Date: |        |         | Analysis Date: 6/16/2015 |             | SeqNo: 802096                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL     | SPK value                | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | 0.013  | 0.00050 | 0.01250                  | 0           | 101                                   | 85       | 115         |      |          |      |
| Selenium   | 0.025  | 0.0010  | 0.02500                  | 0           | 99.4                                  | 85       | 115         |      |          |      |
| Uranium    | 0.013  | 0.00050 | 0.01250                  | 0           | 102                                   | 85       | 115         |      |          |      |

|            |        |         |                          |             |                                       |          |             |      |          |      |
|------------|--------|---------|--------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |         | SampType: LCS            |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | LCSW   |         | Batch ID: R26876         |             | RunNo: 26876                          |          |             |      |          |      |
| Prep Date: |        |         | Analysis Date: 6/16/2015 |             | SeqNo: 802099                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL     | SPK value                | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | 0.012  | 0.00050 | 0.01250                  | 0           | 96.3                                  | 85       | 115         |      |          |      |
| Selenium   | 0.025  | 0.0010  | 0.02500                  | 0           | 100                                   | 85       | 115         |      |          |      |
| Uranium    | 0.012  | 0.00050 | 0.01250                  | 0           | 96.9                                  | 85       | 115         |      |          |      |

|            |        |                          |           |             |                                       |          |             |      |          |      |
|------------|--------|--------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK           |           |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R26876         |           |             | RunNo: 26876                          |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 6/16/2015 |           |             | SeqNo: 802100                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                      | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | ND     | 0.00050                  |           |             |                                       |          |             |      |          |      |
| Selenium   | ND     | 0.0010                   |           |             |                                       |          |             |      |          |      |
| Uranium    | ND     | 0.00050                  |           |             |                                       |          |             |      |          |      |

|            |        |                          |           |             |                                       |          |             |      |          |      |
|------------|--------|--------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK           |           |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R26876         |           |             | RunNo: 26876                          |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 6/16/2015 |           |             | SeqNo: 802101                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                      | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | ND     | 0.00050                  |           |             |                                       |          |             |      |          |      |
| Selenium   | ND     | 0.0010                   |           |             |                                       |          |             |      |          |      |
| Uranium    | ND     | 0.00050                  |           |             |                                       |          |             |      |          |      |

|            |        |        |                          |             |                                       |          |             |      |          |      |
|------------|--------|--------|--------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |        | SampType: LCS            |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | LCSW   |        | Batch ID: R26904         |             | RunNo: 26904                          |          |             |      |          |      |
| Prep Date: |        |        | Analysis Date: 6/17/2015 |             | SeqNo: 803447                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL    | SPK value                | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Arsenic    | 0.024  | 0.0010 | 0.02500                  | 0           | 97.9                                  | 85       | 115         |      |          |      |

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P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506316

22-Jun-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary RO Reject

|                        |                                 |        |           |                                              |      |                    |           |      |          |      |
|------------------------|---------------------------------|--------|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>LCS</b>   | SampType: <b>LCS</b>            |        |           | TestCode: <b>EPA 200.8: Dissolved Metals</b> |      |                    |           |      |          |      |
| Client ID: <b>LCSW</b> | Batch ID: <b>R26904</b>         |        |           | RunNo: <b>26904</b>                          |      |                    |           |      |          |      |
| Prep Date:             | Analysis Date: <b>6/17/2015</b> |        |           | SeqNo: <b>803448</b>                         |      | Units: <b>mg/L</b> |           |      |          |      |
| Analyte                | Result                          | PQL    | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic                | 0.024                           | 0.0010 | 0.02500   | 0                                            | 97.8 | 85                 | 115       |      |          |      |

|                       |                                 |        |           |                                              |      |                    |           |      |          |      |
|-----------------------|---------------------------------|--------|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>MB</b>   | SampType: <b>MBLK</b>           |        |           | TestCode: <b>EPA 200.8: Dissolved Metals</b> |      |                    |           |      |          |      |
| Client ID: <b>PBW</b> | Batch ID: <b>R26904</b>         |        |           | RunNo: <b>26904</b>                          |      |                    |           |      |          |      |
| Prep Date:            | Analysis Date: <b>6/17/2015</b> |        |           | SeqNo: <b>803449</b>                         |      | Units: <b>mg/L</b> |           |      |          |      |
| Analyte               | Result                          | PQL    | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic               | ND                              | 0.0010 |           |                                              |      |                    |           |      |          |      |

|                       |                                 |        |           |                                              |      |                    |           |      |          |      |
|-----------------------|---------------------------------|--------|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>MB</b>   | SampType: <b>MBLK</b>           |        |           | TestCode: <b>EPA 200.8: Dissolved Metals</b> |      |                    |           |      |          |      |
| Client ID: <b>PBW</b> | Batch ID: <b>R26904</b>         |        |           | RunNo: <b>26904</b>                          |      |                    |           |      |          |      |
| Prep Date:            | Analysis Date: <b>6/17/2015</b> |        |           | SeqNo: <b>803450</b>                         |      | Units: <b>mg/L</b> |           |      |          |      |
| Analyte               | Result                          | PQL    | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic               | ND                              | 0.0010 |           |                                              |      |                    |           |      |          |      |

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P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506316

22-Jun-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary RO Reject

|            |          |         |                         |             |                                     |          |             |      |          |      |
|------------|----------|---------|-------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-19630 |         | SampType: MBLK          |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | PBW      |         | Batch ID: 19630         |             | RunNo: 26705                        |          |             |      |          |      |
| Prep Date: | 6/9/2015 |         | Analysis Date: 6/9/2015 |             | SeqNo: 795807                       |          | Units: mg/L |      |          |      |
| Analyte    | Result   | PQL     | SPK value               | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercurv    | ND       | 0.00020 |                         |             |                                     |          |             |      |          |      |

|            |           |         |                         |             |                                     |          |             |      |          |      |
|------------|-----------|---------|-------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-19630 |         | SampType: LCS           |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | LCSW      |         | Batch ID: 19630         |             | RunNo: 26705                        |          |             |      |          |      |
| Prep Date: | 6/9/2015  |         | Analysis Date: 6/9/2015 |             | SeqNo: 795808                       |          | Units: mg/L |      |          |      |
| Analyte    | Result    | PQL     | SPK value               | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercury    | 0.0050    | 0.00020 | 0.005000                | 0           | 100                                 | 80       | 120         |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506316

22-Jun-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary RO Reject

|                       |                                |      |                                           |             |                    |          |           |      |          |      |
|-----------------------|--------------------------------|------|-------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>MB</b>   | SampType: <b>MBLK</b>          |      | TestCode: <b>EPA Method 300.0: Anions</b> |             |                    |          |           |      |          |      |
| Client ID: <b>PBW</b> | Batch ID: <b>R26695</b>        |      | RunNo: <b>26695</b>                       |             |                    |          |           |      |          |      |
| Prep Date:            | Analysis Date: <b>6/8/2015</b> |      | SeqNo: <b>795454</b>                      |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte               | Result                         | PQL  | SPK value                                 | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride              | ND                             | 0.10 |                                           |             |                    |          |           |      |          |      |
| Nitrate+Nitrite as N  | ND                             | 0.20 |                                           |             |                    |          |           |      |          |      |

|                        |                                |      |                                           |             |                    |          |           |      |          |      |
|------------------------|--------------------------------|------|-------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>LCS</b>   | SampType: <b>LCS</b>           |      | TestCode: <b>EPA Method 300.0: Anions</b> |             |                    |          |           |      |          |      |
| Client ID: <b>LCSW</b> | Batch ID: <b>R26695</b>        |      | RunNo: <b>26695</b>                       |             |                    |          |           |      |          |      |
| Prep Date:             | Analysis Date: <b>6/8/2015</b> |      | SeqNo: <b>795455</b>                      |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                | Result                         | PQL  | SPK value                                 | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride               | 0.48                           | 0.10 | 0.5000                                    | 0           | 95.8               | 90       | 110       |      |          |      |
| Nitrate+Nitrite as N   | 3.5                            | 0.20 | 3.500                                     | 0           | 100                | 90       | 110       |      |          |      |

|                       |                                |      |                                           |             |                    |          |           |      |          |      |
|-----------------------|--------------------------------|------|-------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>MB</b>   | SampType: <b>MBLK</b>          |      | TestCode: <b>EPA Method 300.0: Anions</b> |             |                    |          |           |      |          |      |
| Client ID: <b>PBW</b> | Batch ID: <b>R26721</b>        |      | RunNo: <b>26721</b>                       |             |                    |          |           |      |          |      |
| Prep Date:            | Analysis Date: <b>6/9/2015</b> |      | SeqNo: <b>796475</b>                      |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte               | Result                         | PQL  | SPK value                                 | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride              | ND                             | 0.50 |                                           |             |                    |          |           |      |          |      |
| Sulfate               | ND                             | 0.50 |                                           |             |                    |          |           |      |          |      |

|                        |                                |      |                                           |             |                    |          |           |      |          |      |
|------------------------|--------------------------------|------|-------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>LCS</b>   | SampType: <b>LCS</b>           |      | TestCode: <b>EPA Method 300.0: Anions</b> |             |                    |          |           |      |          |      |
| Client ID: <b>LCSW</b> | Batch ID: <b>R26721</b>        |      | RunNo: <b>26721</b>                       |             |                    |          |           |      |          |      |
| Prep Date:             | Analysis Date: <b>6/9/2015</b> |      | SeqNo: <b>796476</b>                      |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                | Result                         | PQL  | SPK value                                 | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride               | 5.1                            | 0.50 | 5.000                                     | 0           | 103                | 90       | 110       |      |          |      |
| Sulfate                | 11                             | 0.50 | 10.00                                     | 0           | 106                | 90       | 110       |      |          |      |

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P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506316

22-Jun-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary RO Reject

|                   |           |       |                          |             |                                      |          |             |      |          |      |
|-------------------|-----------|-------|--------------------------|-------------|--------------------------------------|----------|-------------|------|----------|------|
| Sample ID         | MB-19674  |       | SampType: MBLK           |             | TestCode: EPA Method 8011/504.1: EDB |          |             |      |          |      |
| Client ID:        | PBW       |       | Batch ID: 19674          |             | RunNo: 26780                         |          |             |      |          |      |
| Prep Date:        | 6/11/2015 |       | Analysis Date: 6/11/2015 |             | SeqNo: 798570                        |          | Units: µg/L |      |          |      |
| Analyte           | Result    | PQL   | SPK value                | SPK Ref Val | %REC                                 | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | ND        | 0.010 |                          |             |                                      |          |             |      |          |      |

|                   |           |       |                          |             |                                      |          |             |      |          |      |
|-------------------|-----------|-------|--------------------------|-------------|--------------------------------------|----------|-------------|------|----------|------|
| Sample ID         | LCS-19674 |       | SampType: LCS            |             | TestCode: EPA Method 8011/504.1: EDB |          |             |      |          |      |
| Client ID:        | LCSW      |       | Batch ID: 19674          |             | RunNo: 26780                         |          |             |      |          |      |
| Prep Date:        | 6/11/2015 |       | Analysis Date: 6/11/2015 |             | SeqNo: 798571                        |          | Units: µg/L |      |          |      |
| Analyte           | Result    | PQL   | SPK value                | SPK Ref Val | %REC                                 | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | 0.11      | 0.010 | 0.1000                   | 0           | 109                                  | 70       | 130         |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506316

22-Jun-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary RO Reject

|                                |          |     |                         |             |                                          |          |             |      |          |      |
|--------------------------------|----------|-----|-------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                      | MB-19616 |     | SampType: MBLK          |             | TestCode: EPA Method 8015D: Diesel Range |          |             |      |          |      |
| Client ID:                     | PBW      |     | Batch ID: 19616         |             | RunNo: 26673                             |          |             |      |          |      |
| Prep Date:                     | 6/8/2015 |     | Analysis Date: 6/9/2015 |             | SeqNo: 796030                            |          | Units: mg/L |      |          |      |
| Analyte                        | Result   | PQL | SPK value               | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND       | 1.0 |                         |             |                                          |          |             |      |          |      |
| Motor Oil Range Organics (MRO) | ND       | 5.0 |                         |             |                                          |          |             |      |          |      |
| Surr: DNOP                     | 0.94     |     | 1.000                   |             | 94.1                                     | 76.5     | 150         |      |          |      |

|                             |           |     |                         |             |                                          |          |             |      |          |      |
|-----------------------------|-----------|-----|-------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | LCS-19616 |     | SampType: LCS           |             | TestCode: EPA Method 8015D: Diesel Range |          |             |      |          |      |
| Client ID:                  | LCSW      |     | Batch ID: 19616         |             | RunNo: 26673                             |          |             |      |          |      |
| Prep Date:                  | 6/8/2015  |     | Analysis Date: 6/9/2015 |             | SeqNo: 796031                            |          | Units: mg/L |      |          |      |
| Analyte                     | Result    | PQL | SPK value               | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 5.0       | 1.0 | 5.000                   | 0           | 99.3                                     | 60.1     | 156         |      |          |      |
| Surr: DNOP                  | 0.45      |     | 0.5000                  |             | 89.8                                     | 76.5     | 150         |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506316

22-Jun-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary RO Reject

|                               |                                 |       |                                                   |             |                    |          |           |      |          |      |
|-------------------------------|---------------------------------|-------|---------------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>5ML RB</b>       | SampType: <b>MBLK</b>           |       | TestCode: <b>EPA Method 8015D: Gasoline Range</b> |             |                    |          |           |      |          |      |
| Client ID: <b>PBW</b>         | Batch ID: <b>R26753</b>         |       | RunNo: <b>26753</b>                               |             |                    |          |           |      |          |      |
| Prep Date:                    | Analysis Date: <b>6/10/2015</b> |       | SeqNo: <b>797263</b>                              |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                       | Result                          | PQL   | SPK value                                         | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND                              | 0.050 |                                                   |             |                    |          |           |      |          |      |
| Surr: BFB                     | 18                              |       | 20.00                                             |             | 88.9               | 57.8     | 137       |      |          |      |

|                                |                                 |       |                                                   |             |                    |          |           |      |          |      |
|--------------------------------|---------------------------------|-------|---------------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>2.5UG GRO LCS</b> | SampType: <b>LCS</b>            |       | TestCode: <b>EPA Method 8015D: Gasoline Range</b> |             |                    |          |           |      |          |      |
| Client ID: <b>LCSW</b>         | Batch ID: <b>R26753</b>         |       | RunNo: <b>26753</b>                               |             |                    |          |           |      |          |      |
| Prep Date:                     | Analysis Date: <b>6/10/2015</b> |       | SeqNo: <b>797264</b>                              |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                        | Result                          | PQL   | SPK value                                         | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO)  | 0.49                            | 0.050 | 0.5000                                            | 0           | 98.5               | 80       | 120       |      |          |      |
| Surr: BFB                      | 21                              |       | 20.00                                             |             | 103                | 57.8     | 137       |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506316

22-Jun-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary RO Reject

|                            |                 |     |                                 |             |                                         |          |                    |      |          |      |
|----------------------------|-----------------|-----|---------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>MB-19626</b> |     | SampType: <b>MBLK</b>           |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>PBW</b>      |     | Batch ID: <b>19626</b>          |             | RunNo: <b>26808</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>6/9/2015</b> |     | Analysis Date: <b>6/12/2015</b> |             | SeqNo: <b>799539</b>                    |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                    | Result          | PQL | SPK value                       | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Aroclor 1016               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1221               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1232               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1242               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1248               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1254               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1260               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Surr: Decachlorobiphenyl   | 1.8             |     | 2.500                           |             | 72.8                                    | 44.5     | 110                |      |          |      |
| Surr: Tetrachloro-m-xylene | 1.6             |     | 2.500                           |             | 63.2                                    | 31.8     | 95.7               |      |          |      |

|                            |                  |     |                                 |             |                                         |          |                    |      |          |      |
|----------------------------|------------------|-----|---------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>MB-19672</b>  |     | SampType: <b>MBLK</b>           |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>PBW</b>       |     | Batch ID: <b>19672</b>          |             | RunNo: <b>26808</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>6/11/2015</b> |     | Analysis Date: <b>6/12/2015</b> |             | SeqNo: <b>799540</b>                    |          | Units: <b>%REC</b> |      |          |      |
| Analyte                    | Result           | PQL | SPK value                       | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Surr: Decachlorobiphenyl   | 2.3              |     | 2.500                           |             | 92.0                                    | 44.5     | 110                |      |          |      |
| Surr: Tetrachloro-m-xylene | 1.9              |     | 2.500                           |             | 75.2                                    | 31.8     | 95.7               |      |          |      |

|                            |                  |     |                                 |             |                                         |          |                    |      |          |      |
|----------------------------|------------------|-----|---------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>LCS-19672</b> |     | SampType: <b>LCS</b>            |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>LCSW</b>      |     | Batch ID: <b>19672</b>          |             | RunNo: <b>26808</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>6/11/2015</b> |     | Analysis Date: <b>6/12/2015</b> |             | SeqNo: <b>799541</b>                    |          | Units: <b>%REC</b> |      |          |      |
| Analyte                    | Result           | PQL | SPK value                       | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Surr: Decachlorobiphenyl   | 2.0              |     | 2.500                           |             | 82.0                                    | 44.5     | 110                |      |          |      |
| Surr: Tetrachloro-m-xylene | 1.8              |     | 2.500                           |             | 70.4                                    | 31.8     | 95.7               |      |          |      |

|                            |                   |     |                                 |             |                                         |          |                    |      |          |      |
|----------------------------|-------------------|-----|---------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>LCSD-19626</b> |     | SampType: <b>LCSD</b>           |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>LCSS02</b>     |     | Batch ID: <b>19626</b>          |             | RunNo: <b>26808</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>6/9/2015</b>   |     | Analysis Date: <b>6/12/2015</b> |             | SeqNo: <b>799543</b>                    |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                    | Result            | PQL | SPK value                       | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Aroclor 1016               | 3.1               | 1.0 | 5.000                           | 0           | 61.8                                    | 22.6     | 127                | 4.98 | 26.9     |      |
| Aroclor 1260               | 4.7               | 1.0 | 5.000                           | 0           | 94.3                                    | 20.4     | 122                | 8.96 | 29.1     |      |
| Surr: Decachlorobiphenyl   | 1.7               |     | 2.500                           |             | 69.2                                    | 44.5     | 110                | 0    | 0        |      |
| Surr: Tetrachloro-m-xylene | 1.5               |     | 2.500                           |             | 58.4                                    | 31.8     | 95.7               | 0    | 0        |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506316

22-Jun-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary RO Reject

|                            |           |     |                          |             |                                  |          |             |      |          |      |
|----------------------------|-----------|-----|--------------------------|-------------|----------------------------------|----------|-------------|------|----------|------|
| Sample ID                  | LCS-19626 |     | SampType: LCS            |             | TestCode: EPA Method 8082: PCB's |          |             |      |          |      |
| Client ID:                 | LCSW      |     | Batch ID: 19626          |             | RunNo: 26808                     |          |             |      |          |      |
| Prep Date:                 | 6/9/2015  |     | Analysis Date: 6/12/2015 |             | SeqNo: 799548                    |          | Units: µg/L |      |          |      |
| Analyte                    | Result    | PQL | SPK value                | SPK Ref Val | %REC                             | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Aroclor 1016               | 2.9       | 1.0 | 5.000                    | 0           | 58.8                             | 22.6     | 127         |      |          |      |
| Aroclor 1260               | 5.2       | 1.0 | 5.000                    | 0           | 103                              | 20.4     | 122         |      |          |      |
| Surr: Decachlorobiphenyl   | 1.9       |     | 2.500                    |             | 74.8                             | 44.5     | 110         |      |          |      |
| Surr: Tetrachloro-m-xylene | 1.7       |     | 2.500                    |             | 66.4                             | 31.8     | 95.7        |      |          |      |

### Qualifiers:

- |                                                   |                                                      |
|---------------------------------------------------|------------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |                                                      |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506316

22-Jun-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary RO Reject

| Sample ID <b>rb1</b>        | SampType: <b>MBLK</b>           |     |           | TestCode: <b>EPA Method 8260B: VOLATILES</b> |      |                    |           |      |          |      |
|-----------------------------|---------------------------------|-----|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Client ID: <b>PBW</b>       | Batch ID: <b>R26817</b>         |     |           | RunNo: <b>26817</b>                          |      |                    |           |      |          |      |
| Prep Date:                  | Analysis Date: <b>6/12/2015</b> |     |           | SeqNo: <b>799790</b>                         |      | Units: <b>µg/L</b> |           |      |          |      |
| Analyte                     | Result                          | PQL | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                     | ND                              | 1.0 |           |                                              |      |                    |           |      |          |      |
| Toluene                     | ND                              | 1.0 |           |                                              |      |                    |           |      |          |      |
| Ethylbenzene                | ND                              | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,2-Dichloroethane (EDC)    | ND                              | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,2-Dibromoethane (EDB)     | ND                              | 1.0 |           |                                              |      |                    |           |      |          |      |
| Carbon Tetrachloride        | ND                              | 1.0 |           |                                              |      |                    |           |      |          |      |
| Chloroform                  | ND                              | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1-Dichloroethane          | ND                              | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1-Dichloroethene          | ND                              | 1.0 |           |                                              |      |                    |           |      |          |      |
| Methylene Chloride          | ND                              | 3.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND                              | 2.0 |           |                                              |      |                    |           |      |          |      |
| Tetrachloroethene (PCE)     | ND                              | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,1-Trichloroethane       | ND                              | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,2-Trichloroethane       | ND                              | 1.0 |           |                                              |      |                    |           |      |          |      |
| Trichloroethene (TCE)       | ND                              | 1.0 |           |                                              |      |                    |           |      |          |      |
| Vinyl chloride              | ND                              | 1.0 |           |                                              |      |                    |           |      |          |      |
| Xylenes, Total              | ND                              | 1.5 |           |                                              |      |                    |           |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 8.8                             |     | 10.00     |                                              | 87.6 | 70                 | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 10                              |     | 10.00     |                                              | 100  | 70                 | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 9.8                             |     | 10.00     |                                              | 97.7 | 70                 | 130       |      |          |      |
| Surr: Toluene-d8            | 10                              |     | 10.00     |                                              | 103  | 70                 | 130       |      |          |      |

| Sample ID <b>100nglcs200T2lcs</b> | SampType: <b>LCS</b>            |     |           | TestCode: <b>EPA Method 8260B: VOLATILES</b> |      |                    |           |      |          |      |
|-----------------------------------|---------------------------------|-----|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Client ID: <b>LCSW</b>            | Batch ID: <b>R26817</b>         |     |           | RunNo: <b>26817</b>                          |      |                    |           |      |          |      |
| Prep Date:                        | Analysis Date: <b>6/12/2015</b> |     |           | SeqNo: <b>799792</b>                         |      | Units: <b>µg/L</b> |           |      |          |      |
| Analyte                           | Result                          | PQL | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                           | 21                              | 1.0 | 20.00     | 0                                            | 103  | 70                 | 130       |      |          |      |
| Toluene                           | 20                              | 1.0 | 20.00     | 0                                            | 102  | 70                 | 130       |      |          |      |
| 1,1-Dichloroethene                | 23                              | 1.0 | 20.00     | 0                                            | 113  | 75.6               | 144       |      |          |      |
| Trichloroethene (TCE)             | 19                              | 1.0 | 20.00     | 0                                            | 95.2 | 70                 | 130       |      |          |      |
| Surr: 1,2-Dichloroethane-d4       | 9.0                             |     | 10.00     |                                              | 90.1 | 70                 | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene        | 11                              |     | 10.00     |                                              | 106  | 70                 | 130       |      |          |      |
| Surr: Dibromofluoromethane        | 9.1                             |     | 10.00     |                                              | 90.8 | 70                 | 130       |      |          |      |
| Surr: Toluene-d8                  | 10                              |     | 10.00     |                                              | 102  | 70                 | 130       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
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H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506316

22-Jun-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary RO Reject

|                        |          |       |                          |             |                                 |          |             |      |          |      |
|------------------------|----------|-------|--------------------------|-------------|---------------------------------|----------|-------------|------|----------|------|
| Sample ID              | MB-19627 |       | SampType: MBLK           |             | TestCode: EPA Method 8310: PAHs |          |             |      |          |      |
| Client ID:             | PBW      |       | Batch ID: 19627          |             | RunNo: 26846                    |          |             |      |          |      |
| Prep Date:             | 6/9/2015 |       | Analysis Date: 6/16/2015 |             | SeqNo: 801380                   |          | Units: µg/L |      |          |      |
| Analyte                | Result   | PQL   | SPK value                | SPK Ref Val | %REC                            | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Naphthalene            | ND       | 2.0   |                          |             |                                 |          |             |      |          |      |
| 1-Methylnaphthalene    | ND       | 2.0   |                          |             |                                 |          |             |      |          |      |
| 2-Methylnaphthalene    | ND       | 2.0   |                          |             |                                 |          |             |      |          |      |
| Acenaphthylene         | ND       | 2.5   |                          |             |                                 |          |             |      |          |      |
| Acenaphthene           | ND       | 2.0   |                          |             |                                 |          |             |      |          |      |
| Fluorene               | ND       | 0.80  |                          |             |                                 |          |             |      |          |      |
| Phenanthrene           | ND       | 0.60  |                          |             |                                 |          |             |      |          |      |
| Anthracene             | ND       | 0.60  |                          |             |                                 |          |             |      |          |      |
| Fluoranthene           | ND       | 0.30  |                          |             |                                 |          |             |      |          |      |
| Pyrene                 | ND       | 0.30  |                          |             |                                 |          |             |      |          |      |
| Benz(a)anthracene      | ND       | 0.070 |                          |             |                                 |          |             |      |          |      |
| Chrysene               | ND       | 0.20  |                          |             |                                 |          |             |      |          |      |
| Benzo(b)fluoranthene   | ND       | 0.10  |                          |             |                                 |          |             |      |          |      |
| Benzo(k)fluoranthene   | ND       | 0.070 |                          |             |                                 |          |             |      |          |      |
| Benzo(a)pyrene         | ND       | 0.070 |                          |             |                                 |          |             |      |          |      |
| Dibenz(a,h)anthracene  | ND       | 0.12  |                          |             |                                 |          |             |      |          |      |
| Benzo(g,h,i)perylene   | ND       | 0.12  |                          |             |                                 |          |             |      |          |      |
| Indeno(1,2,3-cd)pyrene | ND       | 0.25  |                          |             |                                 |          |             |      |          |      |
| Surr: Benzo(e)pyrene   | 13       |       | 20.00                    |             | 65.6                            | 37.2     | 136         |      |          |      |

|                      |           |       |                          |             |                                 |          |             |      |          |      |
|----------------------|-----------|-------|--------------------------|-------------|---------------------------------|----------|-------------|------|----------|------|
| Sample ID            | LCS-19627 |       | SampType: LCS            |             | TestCode: EPA Method 8310: PAHs |          |             |      |          |      |
| Client ID:           | LCSW      |       | Batch ID: 19627          |             | RunNo: 26846                    |          |             |      |          |      |
| Prep Date:           | 6/9/2015  |       | Analysis Date: 6/16/2015 |             | SeqNo: 801381                   |          | Units: µg/L |      |          |      |
| Analyte              | Result    | PQL   | SPK value                | SPK Ref Val | %REC                            | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Naphthalene          | 74        | 2.0   | 80.00                    | 0           | 92.9                            | 57.8     | 83.9        |      |          | S    |
| 1-Methylnaphthalene  | 76        | 2.0   | 80.20                    | 0           | 94.6                            | 43.5     | 88.5        |      |          | S    |
| 2-Methylnaphthalene  | 74        | 2.0   | 80.00                    | 0           | 92.8                            | 34.2     | 94.5        |      |          |      |
| Acenaphthylene       | 77        | 2.5   | 80.20                    | 0           | 95.6                            | 58.5     | 93.6        |      |          | S    |
| Acenaphthene         | 74        | 2.0   | 80.00                    | 0           | 91.9                            | 45.5     | 90.9        |      |          | S    |
| Fluorene             | 7.0       | 0.80  | 8.020                    | 0           | 86.7                            | 46.6     | 90.3        |      |          |      |
| Phenanthrene         | 3.6       | 0.60  | 4.020                    | 0           | 89.1                            | 47.2     | 102         |      |          |      |
| Anthracene           | 3.6       | 0.60  | 4.020                    | 0           | 88.8                            | 45.4     | 99.1        |      |          |      |
| Fluoranthene         | 7.3       | 0.30  | 8.020                    | 0           | 90.8                            | 45.3     | 101         |      |          |      |
| Pyrene               | 7.5       | 0.30  | 8.020                    | 0           | 93.0                            | 51.9     | 104         |      |          |      |
| Benz(a)anthracene    | 0.72      | 0.070 | 0.8020                   | 0           | 89.8                            | 46.9     | 104         |      |          |      |
| Chrysene             | 3.6       | 0.20  | 4.020                    | 0           | 89.3                            | 53.6     | 95.1        |      |          |      |
| Benzo(b)fluoranthene | 0.87      | 0.10  | 1.002                    | 0           | 86.8                            | 54.3     | 97.9        |      |          |      |
| Benzo(k)fluoranthene | 0.46      | 0.070 | 0.5000                   | 0           | 92.0                            | 47.4     | 109         |      |          |      |

### Qualifiers:

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E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
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S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506316

22-Jun-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary RO Reject

|                        |           |       |           |                |           |          |           |                       |          |      |        |      |
|------------------------|-----------|-------|-----------|----------------|-----------|----------|-----------|-----------------------|----------|------|--------|------|
| Sample ID              | LCS-19627 |       |           | SampType:      | LCS       |          | TestCode: | EPA Method 8310: PAHs |          |      |        |      |
| Client ID:             | LCSW      |       |           | Batch ID:      | 19627     |          | RunNo:    | 26846                 |          |      |        |      |
| Prep Date:             | 6/9/2015  |       |           | Analysis Date: | 6/16/2015 |          | SeqNo:    | 801381                |          |      | Units: | µg/L |
| Analyte                | Result    | PQL   | SPK value | SPK Ref Val    | %REC      | LowLimit | HighLimit | %RPD                  | RPDLimit | Qual |        |      |
| Benzo(a)pyrene         | 0.46      | 0.070 | 0.5020    | 0              | 91.6      | 56.3     | 98.6      |                       |          |      |        |      |
| Dibenz(a,h)anthracene  | 0.90      | 0.12  | 1.002     | 0              | 89.8      | 57.5     | 95.7      |                       |          |      |        |      |
| Benzo(g,h,i)perylene   | 0.92      | 0.12  | 1.000     | 0              | 92.0      | 55.9     | 98.6      |                       |          |      |        |      |
| Indeno(1,2,3-cd)pyrene | 1.8       | 0.25  | 2.004     | 0              | 90.8      | 52.8     | 95.3      |                       |          |      |        |      |
| Surr: Benzo(e)pyrene   | 13        |       | 20.00     |                | 66.2      | 37.2     | 136       |                       |          |      |        |      |

|                        |            |       |           |                          |                                 |          |             |       |          |      |
|------------------------|------------|-------|-----------|--------------------------|---------------------------------|----------|-------------|-------|----------|------|
| Sample ID              | LCSD-19627 |       |           | SampType: LCSD           | TestCode: EPA Method 8310: PAHs |          |             |       |          |      |
| Client ID:             | LCSS02     |       |           | Batch ID: 19627          | RunNo: 26846                    |          |             |       |          |      |
| Prep Date:             | 6/9/2015   |       |           | Analysis Date: 6/16/2015 | SeqNo: 801382                   |          | Units: µg/L |       |          |      |
| Analyte                | Result     | PQL   | SPK value | SPK Ref Val              | %REC                            | LowLimit | HighLimit   | %RPD  | RPDLimit | Qual |
| Naphthalene            | 70         | 2.0   | 80.00     | 0                        | 88.1                            | 57.8     | 83.9        | 5.29  | 20       | S    |
| 1-Methylnaphthalene    | 73         | 2.0   | 80.20     | 0                        | 90.7                            | 43.5     | 88.5        | 4.20  | 20       | S    |
| 2-Methylnaphthalene    | 71         | 2.0   | 80.00     | 0                        | 88.8                            | 34.2     | 94.5        | 4.35  | 20       |      |
| Acenaphthylene         | 75         | 2.5   | 80.20     | 0                        | 93.1                            | 58.5     | 93.6        | 2.66  | 20       |      |
| Acenaphthene           | 72         | 2.0   | 80.00     | 0                        | 89.8                            | 45.5     | 90.9        | 2.37  | 20       |      |
| Fluorene               | 6.8        | 0.80  | 8.020     | 0                        | 85.4                            | 46.6     | 90.3        | 1.45  | 20       |      |
| Phenanthrene           | 3.6        | 0.60  | 4.020     | 0                        | 89.8                            | 47.2     | 102         | 0.834 | 24       |      |
| Anthracene             | 3.6        | 0.60  | 4.020     | 0                        | 89.8                            | 45.4     | 99.1        | 1.11  | 20       |      |
| Fluoranthene           | 7.4        | 0.30  | 8.020     | 0                        | 91.9                            | 45.3     | 101         | 1.23  | 20.9     |      |
| Pyrene                 | 7.6        | 0.30  | 8.020     | 0                        | 94.4                            | 51.9     | 104         | 1.46  | 20.8     |      |
| Benz(a)anthracene      | 0.71       | 0.070 | 0.8020    | 0                        | 88.5                            | 46.9     | 104         | 1.40  | 20       |      |
| Chrysene               | 3.6        | 0.20  | 4.020     | 0                        | 89.3                            | 53.6     | 95.1        | 0     | 20       |      |
| Benzo(b)fluoranthene   | 0.86       | 0.10  | 1.002     | 0                        | 85.8                            | 54.3     | 97.9        | 1.16  | 20.6     |      |
| Benzo(k)fluoranthene   | 0.45       | 0.070 | 0.5000    | 0                        | 90.0                            | 47.4     | 109         | 2.20  | 20.8     |      |
| Benzo(a)pyrene         | 0.45       | 0.070 | 0.5020    | 0                        | 89.6                            | 56.3     | 98.6        | 2.20  | 20       |      |
| Dibenz(a,h)anthracene  | 0.87       | 0.12  | 1.002     | 0                        | 86.8                            | 57.5     | 95.7        | 3.39  | 20       |      |
| Benzo(g,h,i)perylene   | 0.89       | 0.12  | 1.000     | 0                        | 89.0                            | 55.9     | 98.6        | 3.31  | 20       |      |
| Indeno(1,2,3-cd)pyrene | 1.8        | 0.25  | 2.004     | 0                        | 87.8                            | 52.8     | 95.3        | 3.35  | 20       |      |
| Surr: Benzo(e)pyrene   | 14         |       | 20.00     |                          | 69.4                            | 37.2     | 136         | 0     |          |      |

### Qualifiers:

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H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506316

22-Jun-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary RO Reject

|                              |           |     |                          |             |                                          |          |             |      |          |      |
|------------------------------|-----------|-----|--------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                    | MB-19794  |     | SampType: MBLK           |             | TestCode: Total Phenolics by SW-846 9067 |          |             |      |          |      |
| Client ID:                   | PBW       |     | Batch ID: 19794          |             | RunNo: 26937                             |          |             |      |          |      |
| Prep Date:                   | 6/18/2015 |     | Analysis Date: 6/18/2015 |             | SeqNo: 804126                            |          | Units: µg/L |      |          |      |
| Analyte                      | Result    | PQL | SPK value                | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | ND        | 2.5 |                          |             |                                          |          |             |      |          |      |

|                              |           |     |                          |             |                                          |          |             |      |          |      |
|------------------------------|-----------|-----|--------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                    | LCS-19794 |     | SampType: LCS            |             | TestCode: Total Phenolics by SW-846 9067 |          |             |      |          |      |
| Client ID:                   | LCSW      |     | Batch ID: 19794          |             | RunNo: 26937                             |          |             |      |          |      |
| Prep Date:                   | 6/18/2015 |     | Analysis Date: 6/18/2015 |             | SeqNo: 804127                            |          | Units: µg/L |      |          |      |
| Analyte                      | Result    | PQL | SPK value                | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | 22        | 2.5 | 20.00                    | 0           | 108                                      | 64.4     | 135         |      |          |      |

### Qualifiers:

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J Analyte detected below quantitation limits  
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ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506316

22-Jun-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary RO Reject

|            |           |        |                          |             |                                           |          |             |      |          |      |
|------------|-----------|--------|--------------------------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-R26972 |        | SampType: MBLK           |             | TestCode: EPA 335.4: Total Cyanide Subbed |          |             |      |          |      |
| Client ID: | PBW       |        | Batch ID: R26972         |             | RunNo: 26972                              |          |             |      |          |      |
| Prep Date: |           |        | Analysis Date: 6/18/2015 |             | SeqNo: 805487                             |          | Units: mg/L |      |          |      |
| Analyte    | Result    | PQL    | SPK value                | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cyanide    | ND        | 0.0100 |                          |             |                                           |          |             |      |          |      |

|            |            |     |                          |             |                                           |          |             |      |          |      |
|------------|------------|-----|--------------------------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-R26972 |     | SampType: LCS            |             | TestCode: EPA 335.4: Total Cyanide Subbed |          |             |      |          |      |
| Client ID: | LCSW       |     | Batch ID: R26972         |             | RunNo: 26972                              |          |             |      |          |      |
| Prep Date: |            |     | Analysis Date: 6/18/2015 |             | SeqNo: 805488                             |          | Units: mg/L |      |          |      |
| Analyte    | Result     | PQL | SPK value                | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cyanide    | 0.501      |     | 0.5000                   | 0           | 100                                       | 90       | 110         |      |          |      |

|            |           |        |                          |             |                                           |          |             |      |          |      |
|------------|-----------|--------|--------------------------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-R26972 |        | SampType: MBLK           |             | TestCode: EPA 335.4: Total Cyanide Subbed |          |             |      |          |      |
| Client ID: | PBW       |        | Batch ID: R26972         |             | RunNo: 26972                              |          |             |      |          |      |
| Prep Date: |           |        | Analysis Date: 6/16/2015 |             | SeqNo: 805490                             |          | Units: mg/L |      |          |      |
| Analyte    | Result    | PQL    | SPK value                | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cyanide    | ND        | 0.0100 |                          |             |                                           |          |             |      |          |      |

|            |            |     |                          |             |                                           |          |             |      |          |      |
|------------|------------|-----|--------------------------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-R26972 |     | SampType: LCS            |             | TestCode: EPA 335.4: Total Cyanide Subbed |          |             |      |          |      |
| Client ID: | LCSW       |     | Batch ID: R26972         |             | RunNo: 26972                              |          |             |      |          |      |
| Prep Date: |            |     | Analysis Date: 6/16/2015 |             | SeqNo: 805491                             |          | Units: mg/L |      |          |      |
| Analyte    | Result     | PQL | SPK value                | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cyanide    | 0.503      |     | 0.5000                   | 0           | 101                                       | 90       | 110         |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

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|              |           |       |                          |             |                                                          |          |              |      |          |      |
|--------------|-----------|-------|--------------------------|-------------|----------------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID    | MB-R26972 |       | SampType: MBLK           |             | TestCode: EPA 903.1: Ra 226 and EPA 904.0: Ra 228-Subbed |          |              |      |          |      |
| Client ID:   | PBW       |       | Batch ID: R26972         |             | RunNo: 26972                                             |          |              |      |          |      |
| Prep Date:   |           |       | Analysis Date: 6/16/2015 |             | SeqNo: 805511                                            |          | Units: pCi/L |      |          |      |
| Analyte      | Result    | PQL   | SPK value                | SPK Ref Val | %REC                                                     | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Radium-226   | 0.071     | 0.659 |                          |             |                                                          |          |              |      |          |      |
| Radium-226 ± | 0.324     | 0.659 |                          |             |                                                          |          |              |      |          |      |
| Radium-228   | 0.112     | 0.774 |                          |             |                                                          |          |              |      |          |      |
| Radium-228 ± | 0.344     | 0.774 |                          |             |                                                          |          |              |      |          |      |

### Qualifiers:

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E Value above quantitation range  
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**Client:** Navajo Refining Company  
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|                        |          |      |                          |             |                                               |          |             |      |          |      |
|------------------------|----------|------|--------------------------|-------------|-----------------------------------------------|----------|-------------|------|----------|------|
| Sample ID              | MB-19636 |      | SampType: MBLK           |             | TestCode: SM2540C MOD: Total Dissolved Solids |          |             |      |          |      |
| Client ID:             | PBW      |      | Batch ID: 19636          |             | RunNo: 26730                                  |          |             |      |          |      |
| Prep Date:             | 6/9/2015 |      | Analysis Date: 6/10/2015 |             | SeqNo: 796757                                 |          | Units: mg/L |      |          |      |
| Analyte                | Result   | PQL  | SPK value                | SPK Ref Val | %REC                                          | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Total Dissolved Solids | ND       | 20.0 |                          |             |                                               |          |             |      |          |      |

|                        |           |      |                          |             |                                               |          |             |      |          |      |
|------------------------|-----------|------|--------------------------|-------------|-----------------------------------------------|----------|-------------|------|----------|------|
| Sample ID              | LCS-19636 |      | SampType: LCS            |             | TestCode: SM2540C MOD: Total Dissolved Solids |          |             |      |          |      |
| Client ID:             | LCSW      |      | Batch ID: 19636          |             | RunNo: 26730                                  |          |             |      |          |      |
| Prep Date:             | 6/9/2015  |      | Analysis Date: 6/10/2015 |             | SeqNo: 796758                                 |          | Units: mg/L |      |          |      |
| Analyte                | Result    | PQL  | SPK value                | SPK Ref Val | %REC                                          | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Total Dissolved Solids | 1010      | 20.0 | 1000                     | 0           | 101                                           | 80       | 120         |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

## Sample Log-In Check List

Client Name: **NAVAJO REFINING CO**

Work Order Number: **1506316**

RcptNo: **1**

Received by/date:

*Am 06/06/15*

Logged By: **Ashley Gallegos**

6/6/2015 12:15:00 PM

Completed By: **Ashley Gallegos**

6/8/2015 9:51:07 AM

Reviewed By:

*2/15 06/08/15*

### Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? FedEx

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH: *8-12* unless noted

Adjusted?

Checked by: *JA*

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

| Cooler No | Temp $^{\circ}\text{C}$ | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|-------------------------|-----------|-------------|---------|-----------|-----------|
| 1         | 5.8                     | Good      | Yes         |         |           |           |

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109  
Tel 505-345-3975 Fax 505-345-4107

[illegible]☒ X Standard ☐ Rush

Project Name:

Monthly Temporary RO Reject

Project #: P.O. # 167796

Project Manager

Robert Combs

Sampler: Elizabeth Salsberry

On Ice: ☒ Yes ☐ NoSample Temperature  $58^{\circ}\text{C}$ [illegible]

| Container | Preservative | HEAT No. |
|-----------|--------------|----------|
|           |              |          |

Type and #

|         |  |
|---------|--|
| 1506311 |  |
|---------|--|

|             |                                |     |
|-------------|--------------------------------|-----|
| 2 - 500ml P | H <sub>2</sub> SO <sub>4</sub> | -00 |
|-------------|--------------------------------|-----|

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| 1-500ml P | HNO3 |
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|-----------|------|
| 1.125ml P | HNO3 |
|-----------|------|

| 1-500ml P | NaOH |
|-----------|------|
|-----------|------|

[illegible]

|        |      |
|--------|------|
| 4.71.2 | CONU |
|--------|------|

|        |     |     |
|--------|-----|-----|
| 3-40ml | VOA | HCL |
|--------|-----|-----|

2 - 1L Glass unpres

|            |       |
|------------|-------|
| 4-41 Glass | inner |
|------------|-------|

[illegible]

|                     |  |
|---------------------|--|
| 2-40/MI VOA samples |  |
|---------------------|--|

|            |     |      |
|------------|-----|------|
| 2-40ml VOA | HCL | -002 |
|------------|-----|------|

|                                                                                              |                                                                                              |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <p>  </p> | <p>  </p> |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|

Received by \_\_\_\_\_ Date \_\_\_\_\_

1712

|              |      |      |
|--------------|------|------|
| Received by: | Date | Time |
|--------------|------|------|

| Country        | 1980 | 1985 | 1990 | 1995 | 2000 |
|----------------|------|------|------|------|------|
| Japan          | 18.5 | 19.5 | 20.5 | 21.5 | 22.5 |
| France         | 15.5 | 16.5 | 17.5 | 18.5 | 19.5 |
| Germany        | 14.5 | 15.5 | 16.5 | 17.5 | 18.5 |
| Italy          | 13.5 | 14.5 | 15.5 | 16.5 | 17.5 |
| Spain          | 12.5 | 13.5 | 14.5 | 15.5 | 16.5 |
| United Kingdom | 11.5 | 12.5 | 13.5 | 14.5 | 15.5 |
| Sweden         | 10.5 | 11.5 | 12.5 | 13.5 | 14.5 |
| United States  | 9.5  | 10.5 | 11.5 | 12.5 | 13.5 |

|  |
|--|
|  |
|--|

contrasted to other laboratories. This serves as no

any sub-contracted data will be clearly notated on the analytical report. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Navajo Refining Company, LLC  
501 E. Main  
Artesia, NM 88210  
(Tel) 575 748 3311  
(Fax) 575 746 5451

## Monthly RO Reject Sample Details Attachment



|                       |                         |
|-----------------------|-------------------------|
| Project Name          | Monthly RO Reject       |
| Samplers Name         | Elizabeth Salisbury     |
| Sampler's Affiliation | Navajo Refining Co. LLC |
| Start Date and Time   | 6/5/2015 @ 1:25 pm      |
| End Date and Time     | 6/5/2015 @ 1:54 pm      |

| Sample Type             |                                     |
|-------------------------|-------------------------------------|
| Grab                    | <input checked="" type="checkbox"/> |
| Time Weighted Composite | <input type="checkbox"/>            |
| Flow Weighted Composite | <input type="checkbox"/>            |

| Physical Property |                                     |
|-------------------|-------------------------------------|
| Solid             | <input type="checkbox"/>            |
| Liquid            | <input checked="" type="checkbox"/> |
| Sludge            | <input type="checkbox"/>            |

|                |                         |
|----------------|-------------------------|
| Type of Sample | Directly to sample jars |
|----------------|-------------------------|

|                          |     |
|--------------------------|-----|
| Parts / Sample Intervals | One |
|--------------------------|-----|

Outfall / Sample Location: ☐ North Field R.O. Reject Discharge

☒ South Field R.O. Reject Discharge

| Container | Size  | Material | # of Containers | Neat (None) | Preservatives |      |       |      |         |        | Analysis and/or Method Requested |
|-----------|-------|----------|-----------------|-------------|---------------|------|-------|------|---------|--------|----------------------------------|
|           |       |          |                 |             | HCL           | HNO3 | H2SO4 | NaOH | Na2S2O3 | NaHSO4 |                                  |
| 1         | 500ml | Plastic  | 2               | X           |               |      | X     |      |         |        |                                  |
| 2         | 40ml  | VOA      | 3               |             | X             |      |       |      |         |        |                                  |
| 3         | 500ml | Plastic  | 1               |             |               | X    |       |      |         |        |                                  |
| 4         | 125ml | Plastic  | 1               |             |               | X    |       |      |         |        |                                  |
| 5         | 500ml | Plastic  | 2               |             |               |      | X     |      |         |        |                                  |
| 6         | 1L    | Plastic  | 3               |             |               | X    |       |      |         |        |                                  |
| 7         | 40ml  | VOA      | 2               |             | X             |      |       |      |         |        |                                  |
| 8         | 1L    | Glass    | 1               | X           |               |      |       |      |         |        |                                  |
| 9         | 1L    | Glass    | 2               | X           |               |      |       |      |         |        |                                  |
| 10        | 40ml  | VOA      | 2               | X           |               |      |       |      |         |        |                                  |
| 11        | 40ml  | VOA      | 2               |             | X             |      |       |      |         |        |                                  |

Field Data (Weather, Observations, Etc): 6/5/2015 01:35 Temp 89.6 Humidity 38% Wind Dir SE Wind Speed 16.1 mph Conditions Clear

Date and Time:

Field Temp: 25.9 C Field pH 7.94

| Storage Method |                                     |
|----------------|-------------------------------------|
| Ice            | <input checked="" type="checkbox"/> |
| Refrigerated   | <input type="checkbox"/>            |
| Other          | <input type="checkbox"/>            |

| Shipping Media |                                     |
|----------------|-------------------------------------|
| Ice            | <input checked="" type="checkbox"/> |
| Other          | <input type="checkbox"/>            |



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

June 22, 2015

Robert Combs  
Navajo Refining Company  
P.O. Box 159  
Artesia, NM 88211-0159  
TEL: (575) 748-3311  
FAX

RE: Monthly RO Reject

OrderNo.: 1506320

Dear Robert Combs:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/6/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1506320

Date Reported: 6/22/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** South Field RO Reject Discharge

**Project:** Monthly RO Reject

**Collection Date:** 6/5/2015 1:54:00 PM

**Lab ID:** 1506320-001

**Matrix:** AQUEOUS

**Received Date:** 6/6/2015 12:15:00 PM

| Analyses                                              | Result | RL      | Qual | Units    | DF | Date Analyzed        | Batch               |
|-------------------------------------------------------|--------|---------|------|----------|----|----------------------|---------------------|
| <b>EPA 200.8: DISSOLVED METALS</b>                    |        |         |      |          |    |                      | Analyst: <b>DBD</b> |
| Arsenic                                               | ND     | 0.0010  |      | mg/L     | 1  | 6/16/2015 7:46:40 PM | R26876              |
| Lead                                                  | ND     | 0.0010  |      | mg/L     | 1  | 6/16/2015 7:46:40 PM | R26876              |
| Selenium                                              | 0.0062 | 0.0010  |      | mg/L     | 1  | 6/16/2015 7:46:40 PM | R26876              |
| Uranium                                               | 0.0053 | 0.0010  |      | mg/L     | 1  | 6/16/2015 7:46:40 PM | R26876              |
| <b>EPA 903.1: RA 226 AND EPA 904.0: RA 228-SUBBED</b> |        |         |      |          |    |                      | Analyst: <b>SUB</b> |
| Radium-226                                            | 1.59   | 0.615   |      | pCi/L    | 1  | 6/16/2015            | R26972              |
| Radium-226 ±                                          | 0.712  | 0.615   |      | pCi/L    | 1  | 6/16/2015            | R26972              |
| Radium-228                                            | 0.427  | 0.757   |      | pCi/L    | 1  | 6/16/2015            | R26972              |
| Radium-228 ±                                          | 0.375  | 0.757   |      | pCi/L    | 1  | 6/16/2015            | R26972              |
| <b>EPA METHOD 300.0: ANIONS</b>                       |        |         |      |          |    |                      | Analyst: <b>LGT</b> |
| Fluoride                                              | 2.9    | 0.10    |      | mg/L     | 1  | 6/8/2015 1:35:07 PM  | R26695              |
| Chloride                                              | 380    | 10      |      | mg/L     | 20 | 6/8/2015 2:12:21 PM  | R26695              |
| Sulfate                                               | 1800   | 25      |      | mg/L     | 50 | 6/10/2015 1:41:18 AM | R26721              |
| Nitrate+Nitrite as N                                  | 4.5    | 1.0     |      | mg/L     | 5  | 6/9/2015 4:28:42 AM  | R26695              |
| <b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>            |        |         |      |          |    |                      | Analyst: <b>KS</b>  |
| Total Dissolved Solids                                | 3640   | 20.0    | *    | mg/L     | 1  | 6/11/2015 4:07:00 PM | 19650               |
| <b>EPA 335.4: TOTAL CYANIDE SUBBED</b>                |        |         |      |          |    |                      | Analyst: <b>SUB</b> |
| Cyanide                                               | ND     | 0.0100  |      | mg/L     | 1  | 6/16/2015            | R26972              |
| <b>SM4500-H+B: PH</b>                                 |        |         |      |          |    |                      | Analyst: <b>JRR</b> |
| pH                                                    | 8.06   | 1.68    | H    | pH units | 1  | 6/9/2015 10:02:04 PM | R26740              |
| <b>EPA METHOD 200.7: DISSOLVED METALS</b>             |        |         |      |          |    |                      | Analyst: <b>JLF</b> |
| Aluminum                                              | ND     | 0.020   |      | mg/L     | 1  | 6/16/2015 5:09:17 PM | R26882              |
| Barium                                                | 0.055  | 0.0020  |      | mg/L     | 1  | 6/16/2015 5:09:17 PM | R26882              |
| Boron                                                 | 0.092  | 0.040   |      | mg/L     | 1  | 6/16/2015 5:09:17 PM | R26882              |
| Cadmium                                               | ND     | 0.0020  |      | mg/L     | 1  | 6/16/2015 5:09:17 PM | R26882              |
| Chromium                                              | 0.0077 | 0.0060  |      | mg/L     | 1  | 6/16/2015 5:09:17 PM | R26882              |
| Cobalt                                                | ND     | 0.0060  |      | mg/L     | 1  | 6/16/2015 5:09:17 PM | R26882              |
| Copper                                                | ND     | 0.0060  |      | mg/L     | 1  | 6/16/2015 5:09:17 PM | R26882              |
| Iron                                                  | ND     | 0.020   |      | mg/L     | 1  | 6/16/2015 5:09:17 PM | R26882              |
| Manganese                                             | 0.0021 | 0.0020  |      | mg/L     | 1  | 6/16/2015 5:09:17 PM | R26882              |
| Molybdenum                                            | ND     | 0.0080  |      | mg/L     | 1  | 6/16/2015 5:09:17 PM | R26882              |
| Nickel                                                | ND     | 0.010   |      | mg/L     | 1  | 6/16/2015 5:09:17 PM | R26882              |
| Silver                                                | ND     | 0.0050  |      | mg/L     | 1  | 6/16/2015 5:09:17 PM | R26882              |
| Zinc                                                  | 0.042  | 0.010   |      | mg/L     | 1  | 6/16/2015 5:09:17 PM | R26882              |
| <b>EPA METHOD 245.1: MERCURY</b>                      |        |         |      |          |    |                      | Analyst: <b>MED</b> |
| Mercury                                               | ND     | 0.00020 |      | mg/L     | 1  | 6/9/2015 3:15:08 PM  | 19630               |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                   |                                                      |
|--------------------|---------------------------------------------------|------------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
|                    | E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
|                    | J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
|                    | O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
|                    | R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
|                    | S Spike Recovery outside accepted recovery limits |                                                      |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1506320

Date Reported: 6/22/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** South Field RO Reject Discharge

**Project:** Monthly RO Reject

**Collection Date:** 6/5/2015 1:54:00 PM

**Lab ID:** 1506320-001

**Matrix:** AQUEOUS

**Received Date:** 6/6/2015 12:15:00 PM

| Analyses                                | Result | RL        | Qual | Units | DF | Date Analyzed         | Batch                |
|-----------------------------------------|--------|-----------|------|-------|----|-----------------------|----------------------|
| <b>EPA METHOD 8011/504.1: EDB</b>       |        |           |      |       |    |                       | Analyst: <b>JME</b>  |
| 1,2-Dibromoethane                       | ND     | 0.010     |      | µg/L  | 1  | 6/11/2015 5:29:43 PM  | 19674                |
| <b>EPA METHOD 8082: PCB'S</b>           |        |           |      |       |    |                       | Analyst: <b>SCC</b>  |
| Aroclor 1016                            | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 3:35:55 PM  | 19626                |
| Aroclor 1221                            | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 3:35:55 PM  | 19626                |
| Aroclor 1232                            | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 3:35:55 PM  | 19626                |
| Aroclor 1242                            | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 3:35:55 PM  | 19626                |
| Aroclor 1248                            | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 3:35:55 PM  | 19626                |
| Aroclor 1254                            | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 3:35:55 PM  | 19626                |
| Aroclor 1260                            | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 3:35:55 PM  | 19626                |
| Surr: Decachlorobiphenyl                | 81.2   | 44.5-110  |      | %REC  | 1  | 6/12/2015 3:35:55 PM  | 19626                |
| Surr: Tetrachloro-m-xylene              | 69.6   | 31.8-95.7 |      | %REC  | 1  | 6/12/2015 3:35:55 PM  | 19626                |
| <b>EPA METHOD 8015D: DIESEL RANGE</b>   |        |           |      |       |    |                       | Analyst: <b>KJH</b>  |
| Diesel Range Organics (DRO)             | ND     | 1.0       |      | mg/L  | 1  | 6/9/2015 10:29:45 PM  | 19616                |
| Motor Oil Range Organics (MRO)          | ND     | 5.0       |      | mg/L  | 1  | 6/9/2015 10:29:45 PM  | 19616                |
| Surr: DNOP                              | 100    | 76.5-150  |      | %REC  | 1  | 6/9/2015 10:29:45 PM  | 19616                |
| <b>EPA METHOD 8015D: GASOLINE RANGE</b> |        |           |      |       |    |                       | Analyst: <b>NSB</b>  |
| Gasoline Range Organics (GRO)           | ND     | 0.050     |      | mg/L  | 1  | 6/10/2015 8:13:18 PM  | R26753               |
| Surr: BFB                               | 89.2   | 57.8-137  |      | %REC  | 1  | 6/10/2015 8:13:18 PM  | R26753               |
| <b>EPA METHOD 8310: PAHS</b>            |        |           |      |       |    |                       | Analyst: <b>SCC</b>  |
| Naphthalene                             | ND     | 2.0       |      | µg/L  | 1  | 6/16/2015 12:38:08 PM | 19627                |
| 1-Methylnaphthalene                     | ND     | 2.0       |      | µg/L  | 1  | 6/16/2015 12:38:08 PM | 19627                |
| 2-Methylnaphthalene                     | ND     | 2.0       |      | µg/L  | 1  | 6/16/2015 12:38:08 PM | 19627                |
| Benzo(a)pyrene                          | ND     | 0.070     |      | µg/L  | 1  | 6/16/2015 12:38:08 PM | 19627                |
| Surr: Benzo(e)pyrene                    | 73.2   | 37.2-136  |      | %REC  | 1  | 6/16/2015 12:38:08 PM | 19627                |
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |           |      |       |    |                       | Analyst: <b>cadg</b> |
| Benzene                                 | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 5:41:45 AM  | R26777               |
| Toluene                                 | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 5:41:45 AM  | R26777               |
| Ethylbenzene                            | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 5:41:45 AM  | R26777               |
| 1,2-Dichloroethane (EDC)                | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 5:41:45 AM  | R26777               |
| 1,2-Dibromoethane (EDB)                 | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 5:41:45 AM  | R26777               |
| Carbon Tetrachloride                    | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 5:41:45 AM  | R26777               |
| Chloroform                              | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 5:41:45 AM  | R26777               |
| 1,1-Dichloroethane                      | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 5:41:45 AM  | R26777               |
| 1,1-Dichloroethene                      | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 5:41:45 AM  | R26777               |
| Methylene Chloride                      | ND     | 3.0       |      | µg/L  | 1  | 6/12/2015 5:41:45 AM  | R26777               |
| 1,1,2,2-Tetrachloroethane               | ND     | 2.0       |      | µg/L  | 1  | 6/12/2015 5:41:45 AM  | R26777               |
| Tetrachloroethene (PCE)                 | ND     | 1.0       |      | µg/L  | 1  | 6/12/2015 5:41:45 AM  | R26777               |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                   |                                                      |
|--------------------|---------------------------------------------------|------------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
|                    | E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
|                    | J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
|                    | O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
|                    | R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
|                    | S Spike Recovery outside accepted recovery limits |                                                      |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1506320

Date Reported: 6/22/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** South Field RO Reject Discharge

**Project:** Monthly RO Reject

**Collection Date:** 6/5/2015 1:54:00 PM

**Lab ID:** 1506320-001

**Matrix:** AQUEOUS

**Received Date:** 6/6/2015 12:15:00 PM

| Analyses                              | Result | RL     | Qual | Units | DF | Date Analyzed        | Batch                |
|---------------------------------------|--------|--------|------|-------|----|----------------------|----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b>    |        |        |      |       |    |                      | Analyst: <b>cadg</b> |
| 1,1,1-Trichloroethane                 | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 5:41:45 AM | R26777               |
| 1,1,2-Trichloroethane                 | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 5:41:45 AM | R26777               |
| Trichloroethene (TCE)                 | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 5:41:45 AM | R26777               |
| Vinyl chloride                        | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 5:41:45 AM | R26777               |
| Xylenes, Total                        | ND     | 1.5    |      | µg/L  | 1  | 6/12/2015 5:41:45 AM | R26777               |
| Surr: 1,2-Dichloroethane-d4           | 95.7   | 70-130 |      | %REC  | 1  | 6/12/2015 5:41:45 AM | R26777               |
| Surr: 4-Bromofluorobenzene            | 107    | 70-130 |      | %REC  | 1  | 6/12/2015 5:41:45 AM | R26777               |
| Surr: Dibromofluoromethane            | 96.0   | 70-130 |      | %REC  | 1  | 6/12/2015 5:41:45 AM | R26777               |
| Surr: Toluene-d8                      | 102    | 70-130 |      | %REC  | 1  | 6/12/2015 5:41:45 AM | R26777               |
| <b>TOTAL PHENOLICS BY SW-846 9067</b> |        |        |      |       |    |                      | Analyst: <b>SCC</b>  |
| Phenolics, Total Recoverable          | ND     | 2.5    |      | µg/L  | 1  | 6/18/2015            | 19794                |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |   |                                                 |    |                                                    |              |
|--------------------|---|-------------------------------------------------|----|----------------------------------------------------|--------------|
| <b>Qualifiers:</b> | * | Value exceeds Maximum Contaminant Level.        | B  | Analyte detected in the associated Method Blank    | Page 3 of 22 |
|                    | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |              |
|                    | J | Analyte detected below quantitation limits      | ND | Not Detected at the Reporting Limit                |              |
|                    | O | RSD is greater than RSDlimit                    | P  | Sample pH Not In Range                             |              |
|                    | R | RPD outside accepted recovery limits            | RL | Reporting Detection Limit                          |              |
|                    | S | Spike Recovery outside accepted recovery limits |    |                                                    |              |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1506320

Date Reported: 6/22/2015

CLIENT: Navajo Refining Company

Client Sample ID: Trip Blank

Project: Monthly RO Reject

Collection Date:

Lab ID: 1506320-002

Matrix: TRIP BLANK

Received Date: 6/6/2015 12:15:00 PM

| Analyses                    | Result | RL     | Qual | Units | DF | Date Analyzed        | Batch         |
|-----------------------------|--------|--------|------|-------|----|----------------------|---------------|
| EPA METHOD 8260B: VOLATILES |        |        |      |       |    |                      | Analyst: cadg |
| Benzene                     | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| Toluene                     | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| Ethylbenzene                | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| 1,2-Dichloroethane (EDC)    | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| 1,2-Dibromoethane (EDB)     | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| Carbon Tetrachloride        | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| Chloroform                  | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| 1,1-Dichloroethane          | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| 1,1-Dichloroethene          | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| Methylene Chloride          | ND     | 3.0    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| 1,1,2,2-Tetrachloroethane   | ND     | 2.0    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| Tetrachloroethene (PCE)     | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| 1,1,1-Trichloroethane       | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| 1,1,2-Trichloroethane       | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| Trichloroethene (TCE)       | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| Vinyl chloride              | ND     | 1.0    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| Xylenes, Total              | ND     | 1.5    |      | µg/L  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| Surr: 1,2-Dichloroethane-d4 | 100    | 70-130 |      | %REC  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| Surr: 4-Bromofluorobenzene  | 105    | 70-130 |      | %REC  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| Surr: Dibromofluoromethane  | 102    | 70-130 |      | %REC  | 1  | 6/12/2015 7:07:57 AM | R26777        |
| Surr: Toluene-d8            | 103    | 70-130 |      | %REC  | 1  | 6/12/2015 7:07:57 AM | R26777        |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |   |                                                 |    |                                                    |              |
|-------------|---|-------------------------------------------------|----|----------------------------------------------------|--------------|
| Qualifiers: | * | Value exceeds Maximum Contaminant Level.        | B  | Analyte detected in the associated Method Blank    | Page 4 of 22 |
|             | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |              |
|             | J | Analyte detected below quantitation limits      | ND | Not Detected at the Reporting Limit                |              |
|             | O | RSD is greater than RSDlimit                    | P  | Sample pH Not In Range                             |              |
|             | R | RPD outside accepted recovery limits            | RL | Reporting Detection Limit                          |              |
|             | S | Spike Recovery outside accepted recovery limits |    |                                                    |              |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R26882    | RunNo:      | 26882                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 6/16/2015 | SeqNo:      | 802272                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum   | ND     | 0.020          |           |             |                                    |          |           |      |          |      |
| Barium     | ND     | 0.0020         |           |             |                                    |          |           |      |          |      |
| Boron      | ND     | 0.040          |           |             |                                    |          |           |      |          |      |
| Cadmium    | ND     | 0.0020         |           |             |                                    |          |           |      |          |      |
| Chromium   | ND     | 0.0060         |           |             |                                    |          |           |      |          |      |
| Cobalt     | ND     | 0.0060         |           |             |                                    |          |           |      |          |      |
| Copper     | ND     | 0.0060         |           |             |                                    |          |           |      |          |      |
| Iron       | ND     | 0.020          |           |             |                                    |          |           |      |          |      |
| Manganese  | ND     | 0.0020         |           |             |                                    |          |           |      |          |      |
| Molybdenum | ND     | 0.0080         |           |             |                                    |          |           |      |          |      |
| Nickel     | ND     | 0.010          |           |             |                                    |          |           |      |          |      |
| Silver     | ND     | 0.0050         |           |             |                                    |          |           |      |          |      |
| Zinc       | ND     | 0.010          |           |             |                                    |          |           |      |          |      |

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | R26882    | RunNo:      | 26882                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 6/16/2015 | SeqNo:      | 802273                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum   | 0.53   | 0.020          | 0.5000    | 0           | 107                                | 85       | 115       |      |          |      |
| Barium     | 0.50   | 0.0020         | 0.5000    | 0           | 99.3                               | 85       | 115       |      |          |      |
| Boron      | 0.53   | 0.040          | 0.5000    | 0           | 105                                | 85       | 115       |      |          |      |
| Cadmium    | 0.54   | 0.0020         | 0.5000    | 0           | 107                                | 85       | 115       |      |          |      |
| Chromium   | 0.51   | 0.0060         | 0.5000    | 0           | 101                                | 85       | 115       |      |          |      |
| Cobalt     | 0.52   | 0.0060         | 0.5000    | 0           | 103                                | 85       | 115       |      |          |      |
| Copper     | 0.49   | 0.0060         | 0.5000    | 0           | 97.4                               | 85       | 115       |      |          |      |
| Iron       | 0.50   | 0.020          | 0.5000    | 0           | 99.7                               | 85       | 115       |      |          |      |
| Manganese  | 0.48   | 0.0020         | 0.5000    | 0           | 96.4                               | 85       | 115       |      |          |      |
| Molybdenum | 0.51   | 0.0080         | 0.5000    | 0           | 102                                | 85       | 115       |      |          |      |
| Nickel     | 0.50   | 0.010          | 0.5000    | 0           | 100                                | 85       | 115       |      |          |      |
| Silver     | 0.10   | 0.0050         | 0.1000    | 0           | 101                                | 85       | 115       |      |          |      |
| Zinc       | 0.51   | 0.010          | 0.5000    | 0           | 101                                | 85       | 115       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |        |         |                          |             |                                       |          |             |      |          |      |
|------------|--------|---------|--------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |         | SampType: LCS            |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | LCSW   |         | Batch ID: R26876         |             | RunNo: 26876                          |          |             |      |          |      |
| Prep Date: |        |         | Analysis Date: 6/16/2015 |             | SeqNo: 802096                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL     | SPK value                | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Arsenic    | 0.025  | 0.0010  | 0.02500                  | 0           | 99.0                                  | 85       | 115         |      |          |      |
| Lead       | 0.013  | 0.00050 | 0.01250                  | 0           | 101                                   | 85       | 115         |      |          |      |
| Selenium   | 0.025  | 0.0010  | 0.02500                  | 0           | 99.4                                  | 85       | 115         |      |          |      |
| Uranium    | 0.013  | 0.00050 | 0.01250                  | 0           | 102                                   | 85       | 115         |      |          |      |

|            |        |         |                          |             |                                       |          |             |      |          |      |
|------------|--------|---------|--------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |         | SampType: LCS            |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | LCSW   |         | Batch ID: R26876         |             | RunNo: 26876                          |          |             |      |          |      |
| Prep Date: |        |         | Analysis Date: 6/16/2015 |             | SeqNo: 802099                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL     | SPK value                | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Arsenic    | 0.025  | 0.0010  | 0.02500                  | 0           | 98.9                                  | 85       | 115         |      |          |      |
| Lead       | 0.012  | 0.00050 | 0.01250                  | 0           | 96.3                                  | 85       | 115         |      |          |      |
| Selenium   | 0.025  | 0.0010  | 0.02500                  | 0           | 100                                   | 85       | 115         |      |          |      |
| Uranium    | 0.012  | 0.00050 | 0.01250                  | 0           | 96.9                                  | 85       | 115         |      |          |      |

|            |        |                          |           |             |                                       |          |             |      |          |      |
|------------|--------|--------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK           |           |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R26876         |           |             | RunNo: 26876                          |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 6/16/2015 |           |             | SeqNo: 802100                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                      | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Arsenic    | ND     | 0.0010                   |           |             |                                       |          |             |      |          |      |
| Lead       | ND     | 0.00050                  |           |             |                                       |          |             |      |          |      |
| Selenium   | ND     | 0.0010                   |           |             |                                       |          |             |      |          |      |
| Uranium    | ND     | 0.00050                  |           |             |                                       |          |             |      |          |      |

|            |        |                          |           |             |                                       |          |             |      |          |      |
|------------|--------|--------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK           |           |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R26876         |           |             | RunNo: 26876                          |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 6/16/2015 |           |             | SeqNo: 802101                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                      | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Arsenic    | ND     | 0.0010                   |           |             |                                       |          |             |      |          |      |
| Lead       | ND     | 0.00050                  |           |             |                                       |          |             |      |          |      |
| Selenium   | ND     | 0.0010                   |           |             |                                       |          |             |      |          |      |
| Uranium    | ND     | 0.00050                  |           |             |                                       |          |             |      |          |      |

### Qualifiers:

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R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |          |         |                         |             |                                     |          |             |      |          |      |
|------------|----------|---------|-------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-19630 |         | SampType: MBLK          |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | PBW      |         | Batch ID: 19630         |             | RunNo: 26705                        |          |             |      |          |      |
| Prep Date: | 6/9/2015 |         | Analysis Date: 6/9/2015 |             | SeqNo: 795807                       |          | Units: mg/L |      |          |      |
| Analyte    | Result   | PQL     | SPK value               | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercury    | ND       | 0.00020 |                         |             |                                     |          |             |      |          |      |

|            |           |         |                         |             |                                     |          |             |      |          |      |
|------------|-----------|---------|-------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-19630 |         | SampType: LCS           |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | LCSW      |         | Batch ID: 19630         |             | RunNo: 26705                        |          |             |      |          |      |
| Prep Date: | 6/9/2015  |         | Analysis Date: 6/9/2015 |             | SeqNo: 795808                       |          | Units: mg/L |      |          |      |
| Analyte    | Result    | PQL     | SPK value               | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercury    | 0.0050    | 0.00020 | 0.005000                | 0           | 100                                 | 80       | 120         |      |          |      |

### Qualifiers:

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S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                      |        |                |           |             |                          |          |           |      |          |      |
|----------------------|--------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID            | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID:           | PBW    | Batch ID:      | R26695    | RunNo:      | 26695                    |          |           |      |          |      |
| Prep Date:           |        | Analysis Date: | 6/8/2015  | SeqNo:      | 795454                   | Units:   | mg/L      |      |          |      |
| Analyte              | Result | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride             | ND     | 0.10           |           |             |                          |          |           |      |          |      |
| Chloride             | ND     | 0.50           |           |             |                          |          |           |      |          |      |
| Nitrate+Nitrite as N | ND     | 0.20           |           |             |                          |          |           |      |          |      |

|                      |        |                |           |             |                          |          |           |      |          |      |
|----------------------|--------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID            | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID:           | LCSW   | Batch ID:      | R26695    | RunNo:      | 26695                    |          |           |      |          |      |
| Prep Date:           |        | Analysis Date: | 6/8/2015  | SeqNo:      | 795455                   | Units:   | mg/L      |      |          |      |
| Analyte              | Result | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride             | 0.48   | 0.10           | 0.5000    | 0           | 95.8                     | 90       | 110       |      |          |      |
| Chloride             | 4.8    | 0.50           | 5.000     | 0           | 96.7                     | 90       | 110       |      |          |      |
| Nitrate+Nitrite as N | 3.5    | 0.20           | 3.500     | 0           | 100                      | 90       | 110       |      |          |      |

|            |                     |                |           |             |                          |          |           |      |          |      |
|------------|---------------------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1506320-001EMS      | SampType:      | MS        | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | South Field RO Reje | Batch ID:      | R26695    | RunNo:      | 26695                    |          |           |      |          |      |
| Prep Date: |                     | Analysis Date: | 6/8/2015  | SeqNo:      | 795461                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result              | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride   | 3.3                 | 0.10           | 0.5000    | 2.860       | 84.6                     | 75.3     | 111       |      |          |      |

|            |                     |                |           |             |                          |          |           |      |          |      |
|------------|---------------------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1506320-001EMSD     | SampType:      | MSD       | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | South Field RO Reje | Batch ID:      | R26695    | RunNo:      | 26695                    |          |           |      |          |      |
| Prep Date: |                     | Analysis Date: | 6/8/2015  | SeqNo:      | 795462                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result              | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride   | 3.2                 | 0.10           | 0.5000    | 2.860       | 77.6                     | 75.3     | 111       | 1.07 | 20       |      |

|            |        |                |           |             |                          |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R26721    | RunNo:      | 26721                    |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 6/9/2015  | SeqNo:      | 796475                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Sulfate    | ND     | 0.50           |           |             |                          |          |           |      |          |      |

|            |        |                |           |             |                          |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | R26721    | RunNo:      | 26721                    |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 6/9/2015  | SeqNo:      | 796476                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Sulfate    | 11     | 0.50           | 10.00     | 0           | 106                      | 90       | 110       |      |          |      |

### Qualifiers:

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S Spike Recovery outside accepted recovery limits

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H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                   |           |       |                          |             |                                      |          |             |      |          |      |
|-------------------|-----------|-------|--------------------------|-------------|--------------------------------------|----------|-------------|------|----------|------|
| Sample ID         | MB-19674  |       | SampType: MBLK           |             | TestCode: EPA Method 8011/504.1: EDB |          |             |      |          |      |
| Client ID:        | PBW       |       | Batch ID: 19674          |             | RunNo: 26780                         |          |             |      |          |      |
| Prep Date:        | 6/11/2015 |       | Analysis Date: 6/11/2015 |             | SeqNo: 798570                        |          | Units: µg/L |      |          |      |
| Analyte           | Result    | PQL   | SPK value                | SPK Ref Val | %REC                                 | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | ND        | 0.010 |                          |             |                                      |          |             |      |          |      |

|                   |           |       |                          |             |                                      |          |             |      |          |      |
|-------------------|-----------|-------|--------------------------|-------------|--------------------------------------|----------|-------------|------|----------|------|
| Sample ID         | LCS-19674 |       | SampType: LCS            |             | TestCode: EPA Method 8011/504.1: EDB |          |             |      |          |      |
| Client ID:        | LCSW      |       | Batch ID: 19674          |             | RunNo: 26780                         |          |             |      |          |      |
| Prep Date:        | 6/11/2015 |       | Analysis Date: 6/11/2015 |             | SeqNo: 798571                        |          | Units: µg/L |      |          |      |
| Analyte           | Result    | PQL   | SPK value                | SPK Ref Val | %REC                                 | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | 0.11      | 0.010 | 0.1000                   | 0           | 109                                  | 70       | 130         |      |          |      |

### Qualifiers:

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ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                                |          |     |                         |             |                                          |          |             |      |          |      |
|--------------------------------|----------|-----|-------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                      | MB-19616 |     | SampType: MBLK          |             | TestCode: EPA Method 8015D: Diesel Range |          |             |      |          |      |
| Client ID:                     | PBW      |     | Batch ID: 19616         |             | RunNo: 26673                             |          |             |      |          |      |
| Prep Date:                     | 6/8/2015 |     | Analysis Date: 6/9/2015 |             | SeqNo: 796030                            |          | Units: mg/L |      |          |      |
| Analyte                        | Result   | PQL | SPK value               | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND       | 1.0 |                         |             |                                          |          |             |      |          |      |
| Motor Oil Range Organics (MRO) | ND       | 5.0 |                         |             |                                          |          |             |      |          |      |
| Surr: DNOP                     | 0.94     |     | 1.000                   |             | 94.1                                     | 76.5     | 150         |      |          |      |

|                             |           |     |                         |             |                                          |          |             |      |          |      |
|-----------------------------|-----------|-----|-------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | LCS-19616 |     | SampType: LCS           |             | TestCode: EPA Method 8015D: Diesel Range |          |             |      |          |      |
| Client ID:                  | LCSW      |     | Batch ID: 19616         |             | RunNo: 26673                             |          |             |      |          |      |
| Prep Date:                  | 6/8/2015  |     | Analysis Date: 6/9/2015 |             | SeqNo: 796031                            |          | Units: mg/L |      |          |      |
| Analyte                     | Result    | PQL | SPK value               | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 5.0       | 1.0 | 5.000                   | 0           | 99.3                                     | 60.1     | 156         |      |          |      |
| Surr: DNOP                  | 0.45      |     | 0.5000                  |             | 89.8                                     | 76.5     | 150         |      |          |      |

### Qualifiers:

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S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                               |        |       |                          |             |                                            |          |             |      |          |      |
|-------------------------------|--------|-------|--------------------------|-------------|--------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                     | 5ML RB |       | SampType: MBLK           |             | TestCode: EPA Method 8015D: Gasoline Range |          |             |      |          |      |
| Client ID:                    | PBW    |       | Batch ID: R26753         |             | RunNo: 26753                               |          |             |      |          |      |
| Prep Date:                    |        |       | Analysis Date: 6/10/2015 |             | SeqNo: 797263                              |          | Units: mg/L |      |          |      |
| Analyte                       | Result | PQL   | SPK value                | SPK Ref Val | %REC                                       | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND     | 0.050 |                          |             |                                            |          |             |      |          |      |
| Surr: BFB                     | 18     |       | 20.00                    |             | 88.9                                       | 57.8     | 137         |      |          |      |

|                               |               |       |                          |             |                                            |          |             |      |          |      |
|-------------------------------|---------------|-------|--------------------------|-------------|--------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                     | 2.5UG GRO LCS |       | SampType: LCS            |             | TestCode: EPA Method 8015D: Gasoline Range |          |             |      |          |      |
| Client ID:                    | LCSW          |       | Batch ID: R26753         |             | RunNo: 26753                               |          |             |      |          |      |
| Prep Date:                    |               |       | Analysis Date: 6/10/2015 |             | SeqNo: 797264                              |          | Units: mg/L |      |          |      |
| Analyte                       | Result        | PQL   | SPK value                | SPK Ref Val | %REC                                       | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 0.49          | 0.050 | 0.5000                   | 0           | 98.5                                       | 80       | 120         |      |          |      |
| Surr: BFB                     | 21            |       | 20.00                    |             | 103                                        | 57.8     | 137         |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                            |                 |     |                                 |             |                                         |          |                    |      |          |      |
|----------------------------|-----------------|-----|---------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>MB-19626</b> |     | SampType: <b>MBLK</b>           |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>PBW</b>      |     | Batch ID: <b>19626</b>          |             | RunNo: <b>26808</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>6/9/2015</b> |     | Analysis Date: <b>6/12/2015</b> |             | SeqNo: <b>799539</b>                    |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                    | Result          | PQL | SPK value                       | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Aroclor 1016               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1221               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1232               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1242               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1248               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1254               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1260               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Surr: Decachlorobiphenyl   | 1.8             |     | 2.500                           |             | 72.8                                    | 44.5     | 110                |      |          |      |
| Surr: Tetrachloro-m-xylene | 1.6             |     | 2.500                           |             | 63.2                                    | 31.8     | 95.7               |      |          |      |

|                            |                  |     |                                 |             |                                         |          |                    |      |          |      |
|----------------------------|------------------|-----|---------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>MB-19672</b>  |     | SampType: <b>MBLK</b>           |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>PBW</b>       |     | Batch ID: <b>19672</b>          |             | RunNo: <b>26808</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>6/11/2015</b> |     | Analysis Date: <b>6/12/2015</b> |             | SeqNo: <b>799540</b>                    |          | Units: <b>%REC</b> |      |          |      |
| Analyte                    | Result           | PQL | SPK value                       | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Surr: Decachlorobiphenyl   | 2.3              |     | 2.500                           |             | 92.0                                    | 44.5     | 110                |      |          |      |
| Surr: Tetrachloro-m-xylene | 1.9              |     | 2.500                           |             | 75.2                                    | 31.8     | 95.7               |      |          |      |

|                            |                  |     |                                 |             |                                         |          |                    |      |          |      |
|----------------------------|------------------|-----|---------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>LCS-19672</b> |     | SampType: <b>LCS</b>            |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>LCSW</b>      |     | Batch ID: <b>19672</b>          |             | RunNo: <b>26808</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>6/11/2015</b> |     | Analysis Date: <b>6/12/2015</b> |             | SeqNo: <b>799541</b>                    |          | Units: <b>%REC</b> |      |          |      |
| Analyte                    | Result           | PQL | SPK value                       | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Surr: Decachlorobiphenyl   | 2.0              |     | 2.500                           |             | 82.0                                    | 44.5     | 110                |      |          |      |
| Surr: Tetrachloro-m-xylene | 1.8              |     | 2.500                           |             | 70.4                                    | 31.8     | 95.7               |      |          |      |

|                            |                   |     |                                 |             |                                         |          |                    |      |          |      |
|----------------------------|-------------------|-----|---------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>LCSD-19626</b> |     | SampType: <b>LCSD</b>           |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>LCSS02</b>     |     | Batch ID: <b>19626</b>          |             | RunNo: <b>26808</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>6/9/2015</b>   |     | Analysis Date: <b>6/12/2015</b> |             | SeqNo: <b>799543</b>                    |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                    | Result            | PQL | SPK value                       | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Aroclor 1016               | 3.1               | 1.0 | 5.000                           | 0           | 61.8                                    | 22.6     | 127                | 4.98 | 26.9     |      |
| Aroclor 1260               | 4.7               | 1.0 | 5.000                           | 0           | 94.3                                    | 20.4     | 122                | 8.96 | 29.1     |      |
| Surr: Decachlorobiphenyl   | 1.7               |     | 2.500                           |             | 69.2                                    | 44.5     | 110                | 0    | 0        |      |
| Surr: Tetrachloro-m-xylene | 1.5               |     | 2.500                           |             | 58.4                                    | 31.8     | 95.7               | 0    | 0        |      |

### Qualifiers:

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E Value above quantitation range  
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R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
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ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                            |           |     |                          |             |                                  |          |             |      |          |      |
|----------------------------|-----------|-----|--------------------------|-------------|----------------------------------|----------|-------------|------|----------|------|
| Sample ID                  | LCS-19626 |     | SampType: LCS            |             | TestCode: EPA Method 8082: PCB's |          |             |      |          |      |
| Client ID:                 | LCSW      |     | Batch ID: 19626          |             | RunNo: 26808                     |          |             |      |          |      |
| Prep Date:                 | 6/9/2015  |     | Analysis Date: 6/12/2015 |             | SeqNo: 799548                    |          | Units: µg/L |      |          |      |
| Analyte                    | Result    | PQL | SPK value                | SPK Ref Val | %REC                             | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Aroclor 1016               | 2.9       | 1.0 | 5.000                    | 0           | 58.8                             | 22.6     | 127         |      |          |      |
| Aroclor 1260               | 5.2       | 1.0 | 5.000                    | 0           | 103                              | 20.4     | 122         |      |          |      |
| Surr: Decachlorobiphenyl   | 1.9       |     | 2.500                    |             | 74.8                             | 44.5     | 110         |      |          |      |
| Surr: Tetrachloro-m-xylene | 1.7       |     | 2.500                    |             | 66.4                             | 31.8     | 95.7        |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                             |            |     |                |                  |      |           |                                    |        |             |      |
|-----------------------------|------------|-----|----------------|------------------|------|-----------|------------------------------------|--------|-------------|------|
| Sample ID                   | <b>rb1</b> |     | SampType:      | <b>MBLK</b>      |      | TestCode: | <b>EPA Method 8260B: VOLATILES</b> |        |             |      |
| Client ID:                  | <b>PBW</b> |     | Batch ID:      | <b>R26777</b>    |      | RunNo:    | <b>26777</b>                       |        |             |      |
| Prep Date:                  |            |     | Analysis Date: | <b>6/11/2015</b> |      | SeqNo:    | <b>798456</b>                      | Units: | <b>µg/L</b> |      |
| Analyte                     | Result     | PQL | SPK value      | SPK Ref Val      | %REC | LowLimit  | HighLimit                          | %RPD   | RPDLimit    | Qual |
| Benzene                     | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| Toluene                     | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| Ethylbenzene                | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| 1,2-Dichloroethane (EDC)    | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| 1,2-Dibromoethane (EDB)     | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| Carbon Tetrachloride        | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| Chloroform                  | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| 1,1-Dichloroethane          | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| 1,1-Dichloroethene          | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| Methylene Chloride          | ND         | 3.0 |                |                  |      |           |                                    |        |             |      |
| 1,1,2,2-Tetrachloroethane   | ND         | 2.0 |                |                  |      |           |                                    |        |             |      |
| Tetrachloroethene (PCE)     | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| 1,1,1-Trichloroethane       | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| 1,1,2-Trichloroethane       | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| Trichloroethene (TCE)       | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| Vinyl chloride              | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| Xylenes, Total              | ND         | 1.5 |                |                  |      |           |                                    |        |             |      |
| Surr: 1,2-Dichloroethane-d4 | 10         |     | 10.00          |                  | 103  | 70        | 130                                |        |             |      |
| Surr: 4-Bromofluorobenzene  | 11         |     | 10.00          |                  | 106  | 70        | 130                                |        |             |      |
| Surr: Dibromofluoromethane  | 10         |     | 10.00          |                  | 103  | 70        | 130                                |        |             |      |
| Surr: Toluene-d8            | 10         |     | 10.00          |                  | 100  | 70        | 130                                |        |             |      |

|                             |                  |     |                |                  |      |           |                                    |        |             |      |
|-----------------------------|------------------|-----|----------------|------------------|------|-----------|------------------------------------|--------|-------------|------|
| Sample ID                   | <b>100ng lcs</b> |     | SampType:      | <b>LCS</b>       |      | TestCode: | <b>EPA Method 8260B: VOLATILES</b> |        |             |      |
| Client ID:                  | <b>LCSW</b>      |     | Batch ID:      | <b>R26777</b>    |      | RunNo:    | <b>26777</b>                       |        |             |      |
| Prep Date:                  |                  |     | Analysis Date: | <b>6/11/2015</b> |      | SeqNo:    | <b>798458</b>                      | Units: | <b>µg/L</b> |      |
| Analyte                     | Result           | PQL | SPK value      | SPK Ref Val      | %REC | LowLimit  | HighLimit                          | %RPD   | RPDLimit    | Qual |
| Benzene                     | 20               | 1.0 | 20.00          | 0                | 100  | 70        | 130                                |        |             |      |
| Toluene                     | 21               | 1.0 | 20.00          | 0                | 105  | 70        | 130                                |        |             |      |
| 1,1-Dichloroethene          | 22               | 1.0 | 20.00          | 0                | 110  | 75.6      | 144                                |        |             |      |
| Trichloroethene (TCE)       | 18               | 1.0 | 20.00          | 0                | 89.3 | 70        | 130                                |        |             |      |
| Surr: 1,2-Dichloroethane-d4 | 10               |     | 10.00          |                  | 101  | 70        | 130                                |        |             |      |
| Surr: 4-Bromofluorobenzene  | 11               |     | 10.00          |                  | 106  | 70        | 130                                |        |             |      |
| Surr: Dibromofluoromethane  | 10               |     | 10.00          |                  | 102  | 70        | 130                                |        |             |      |
| Surr: Toluene-d8            | 10               |     | 10.00          |                  | 103  | 70        | 130                                |        |             |      |

### Qualifiers:

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O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                             |            |     |                |                  |      |           |                                    |        |             |      |
|-----------------------------|------------|-----|----------------|------------------|------|-----------|------------------------------------|--------|-------------|------|
| Sample ID                   | <b>rb3</b> |     | SampType:      | <b>MBLK</b>      |      | TestCode: | <b>EPA Method 8260B: VOLATILES</b> |        |             |      |
| Client ID:                  | <b>PBW</b> |     | Batch ID:      | <b>R26777</b>    |      | RunNo:    | <b>26777</b>                       |        |             |      |
| Prep Date:                  |            |     | Analysis Date: | <b>6/11/2015</b> |      | SeqNo:    | <b>798468</b>                      | Units: | <b>µg/L</b> |      |
| Analyte                     | Result     | PQL | SPK value      | SPK Ref Val      | %REC | LowLimit  | HighLimit                          | %RPD   | RPDLimit    | Qual |
| Benzene                     | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| Toluene                     | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| Ethylbenzene                | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| 1,2-Dichloroethane (EDC)    | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| 1,2-Dibromoethane (EDB)     | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| Carbon Tetrachloride        | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| Chloroform                  | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| 1,1-Dichloroethane          | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| 1,1-Dichloroethene          | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| Methylene Chloride          | ND         | 3.0 |                |                  |      |           |                                    |        |             |      |
| 1,1,2,2-Tetrachloroethane   | ND         | 2.0 |                |                  |      |           |                                    |        |             |      |
| Tetrachloroethene (PCE)     | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| 1,1,1-Trichloroethane       | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| 1,1,2-Trichloroethane       | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| Trichloroethene (TCE)       | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| Vinyl chloride              | ND         | 1.0 |                |                  |      |           |                                    |        |             |      |
| Xylenes, Total              | ND         | 1.5 |                |                  |      |           |                                    |        |             |      |
| Surr: 1,2-Dichloroethane-d4 | 11         |     | 10.00          |                  | 109  | 70        | 130                                |        |             |      |
| Surr: 4-Bromofluorobenzene  | 10         |     | 10.00          |                  | 102  | 70        | 130                                |        |             |      |
| Surr: Dibromofluoromethane  | 11         |     | 10.00          |                  | 109  | 70        | 130                                |        |             |      |
| Surr: Toluene-d8            | 10         |     | 10.00          |                  | 100  | 70        | 130                                |        |             |      |

|                             |                   |     |                |                  |      |           |                                    |        |             |      |
|-----------------------------|-------------------|-----|----------------|------------------|------|-----------|------------------------------------|--------|-------------|------|
| Sample ID                   | <b>100ng lcs2</b> |     | SampType:      | <b>LCS</b>       |      | TestCode: | <b>EPA Method 8260B: VOLATILES</b> |        |             |      |
| Client ID:                  | <b>LCSW</b>       |     | Batch ID:      | <b>R26777</b>    |      | RunNo:    | <b>26777</b>                       |        |             |      |
| Prep Date:                  |                   |     | Analysis Date: | <b>6/11/2015</b> |      | SeqNo:    | <b>798470</b>                      | Units: | <b>µg/L</b> |      |
| Analyte                     | Result            | PQL | SPK value      | SPK Ref Val      | %REC | LowLimit  | HighLimit                          | %RPD   | RPDLimit    | Qual |
| Benzene                     | 20                | 1.0 | 20.00          | 0                | 100  | 70        | 130                                |        |             |      |
| Toluene                     | 22                | 1.0 | 20.00          | 0                | 108  | 70        | 130                                |        |             |      |
| 1,1-Dichloroethene          | 22                | 1.0 | 20.00          | 0                | 111  | 75.6      | 144                                |        |             |      |
| Trichloroethene (TCE)       | 19                | 1.0 | 20.00          | 0                | 92.9 | 70        | 130                                |        |             |      |
| Surr: 1,2-Dichloroethane-d4 | 10                |     | 10.00          |                  | 104  | 70        | 130                                |        |             |      |
| Surr: 4-Bromofluorobenzene  | 11                |     | 10.00          |                  | 107  | 70        | 130                                |        |             |      |
| Surr: Dibromofluoromethane  | 10                |     | 10.00          |                  | 105  | 70        | 130                                |        |             |      |
| Surr: Toluene-d8            | 11                |     | 10.00          |                  | 105  | 70        | 130                                |        |             |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                             |                     |     |                          |             |                                       |          |             |      |          |      |
|-----------------------------|---------------------|-----|--------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | 1506320-001a ms     |     | SampType: MS             |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                  | South Field RO Reje |     | Batch ID: R26777         |             | RunNo: 26777                          |          |             |      |          |      |
| Prep Date:                  |                     |     | Analysis Date: 6/12/2015 |             | SeqNo: 798483                         |          | Units: µg/L |      |          |      |
| Analyte                     | Result              | PQL | SPK value                | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Benzene                     | 20                  | 1.0 | 20.00                    | 0           | 102                                   | 70       | 130         |      |          |      |
| Toluene                     | 21                  | 1.0 | 20.00                    | 0           | 103                                   | 70       | 130         |      |          |      |
| 1,1-Dichloroethene          | 22                  | 1.0 | 20.00                    | 0           | 110                                   | 70       | 130         |      |          |      |
| Trichloroethene (TCE)       | 18                  | 1.0 | 20.00                    | 0           | 89.9                                  | 70       | 130         |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.9                 |     | 10.00                    |             | 98.7                                  | 70       | 130         |      |          |      |
| Surr: 4-Bromofluorobenzene  | 11                  |     | 10.00                    |             | 106                                   | 70       | 130         |      |          |      |
| Surr: Dibromofluoromethane  | 9.8                 |     | 10.00                    |             | 98.4                                  | 70       | 130         |      |          |      |
| Surr: Toluene-d8            | 10                  |     | 10.00                    |             | 102                                   | 70       | 130         |      |          |      |

|                             |                     |     |                |             |      |           |                             |       |             |      |  |
|-----------------------------|---------------------|-----|----------------|-------------|------|-----------|-----------------------------|-------|-------------|------|--|
| Sample ID                   | 1506320-001A MSD    |     | SampType:      | MSD         |      | TestCode: | EPA Method 8260B: VOLATILES |       |             |      |  |
| Client ID:                  | South Field RO Reje |     | Batch ID:      | R26777      |      | RunNo:    | 26777                       |       |             |      |  |
| Prep Date:                  |                     |     | Analysis Date: | 6/12/2015   |      | SeqNo:    | 798484                      |       | Units: µg/L |      |  |
| Analyte                     | Result              | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                   | %RPD  | RPDLimit    | Qual |  |
| Benzene                     | 19                  | 1.0 | 20.00          | 0           | 95.9 | 70        | 130                         | 6.43  | 20          |      |  |
| Toluene                     | 20                  | 1.0 | 20.00          | 0           | 102  | 70        | 130                         | 0.642 | 20          |      |  |
| 1,1-Dichloroethene          | 19                  | 1.0 | 20.00          | 0           | 96.6 | 70        | 130                         | 13.4  | 20          |      |  |
| Trichloroethene (TCE)       | 17                  | 1.0 | 20.00          | 0           | 83.8 | 70        | 130                         | 7.06  | 20          |      |  |
| Surr: 1,2-Dichloroethane-d4 | 9.7                 |     | 10.00          |             | 96.6 | 70        | 130                         | 0     | 0           |      |  |
| Surr: 4-Bromofluorobenzene  | 10                  |     | 10.00          |             | 104  | 70        | 130                         | 0     | 0           |      |  |
| Surr: Dibromofluoromethane  | 9.3                 |     | 10.00          |             | 92.9 | 70        | 130                         | 0     | 0           |      |  |
| Surr: Toluene-d8            | 10                  |     | 10.00          |             | 103  | 70        | 130                         | 0     | 0           |      |  |

### Qualifiers:

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O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                        |                 |       |                                 |             |                                        |          |                    |      |          |      |
|------------------------|-----------------|-------|---------------------------------|-------------|----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID              | <b>MB-19627</b> |       | SampType: <b>MBLK</b>           |             | TestCode: <b>EPA Method 8310: PAHs</b> |          |                    |      |          |      |
| Client ID:             | <b>PBW</b>      |       | Batch ID: <b>19627</b>          |             | RunNo: <b>26846</b>                    |          |                    |      |          |      |
| Prep Date:             | <b>6/9/2015</b> |       | Analysis Date: <b>6/16/2015</b> |             | SeqNo: <b>801380</b>                   |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                | Result          | PQL   | SPK value                       | SPK Ref Val | %REC                                   | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Naphthalene            | ND              | 2.0   |                                 |             |                                        |          |                    |      |          |      |
| 1-Methylnaphthalene    | ND              | 2.0   |                                 |             |                                        |          |                    |      |          |      |
| 2-Methylnaphthalene    | ND              | 2.0   |                                 |             |                                        |          |                    |      |          |      |
| Acenaphthylene         | ND              | 2.5   |                                 |             |                                        |          |                    |      |          |      |
| Acenaphthene           | ND              | 2.0   |                                 |             |                                        |          |                    |      |          |      |
| Fluorene               | ND              | 0.80  |                                 |             |                                        |          |                    |      |          |      |
| Phenanthrene           | ND              | 0.60  |                                 |             |                                        |          |                    |      |          |      |
| Anthracene             | ND              | 0.60  |                                 |             |                                        |          |                    |      |          |      |
| Fluoranthene           | ND              | 0.30  |                                 |             |                                        |          |                    |      |          |      |
| Pyrene                 | ND              | 0.30  |                                 |             |                                        |          |                    |      |          |      |
| Benz(a)anthracene      | ND              | 0.070 |                                 |             |                                        |          |                    |      |          |      |
| Chrysene               | ND              | 0.20  |                                 |             |                                        |          |                    |      |          |      |
| Benzo(b)fluoranthene   | ND              | 0.10  |                                 |             |                                        |          |                    |      |          |      |
| Benzo(k)fluoranthene   | ND              | 0.070 |                                 |             |                                        |          |                    |      |          |      |
| Benzo(a)pyrene         | ND              | 0.070 |                                 |             |                                        |          |                    |      |          |      |
| Dibenz(a,h)anthracene  | ND              | 0.12  |                                 |             |                                        |          |                    |      |          |      |
| Benzo(g,h,i)perylene   | ND              | 0.12  |                                 |             |                                        |          |                    |      |          |      |
| Indeno(1,2,3-cd)pyrene | ND              | 0.25  |                                 |             |                                        |          |                    |      |          |      |
| Surr: Benzo(e)pyrene   | 13              |       | 20.00                           |             | 65.6                                   | 37.2     | 136                |      |          |      |

|                      |                  |       |                                 |             |                                        |          |                    |      |          |      |
|----------------------|------------------|-------|---------------------------------|-------------|----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID            | <b>LCS-19627</b> |       | SampType: <b>LCS</b>            |             | TestCode: <b>EPA Method 8310: PAHs</b> |          |                    |      |          |      |
| Client ID:           | <b>LCSW</b>      |       | Batch ID: <b>19627</b>          |             | RunNo: <b>26846</b>                    |          |                    |      |          |      |
| Prep Date:           | <b>6/9/2015</b>  |       | Analysis Date: <b>6/16/2015</b> |             | SeqNo: <b>801381</b>                   |          | Units: <b>µg/L</b> |      |          |      |
| Analyte              | Result           | PQL   | SPK value                       | SPK Ref Val | %REC                                   | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Naphthalene          | 74               | 2.0   | 80.00                           | 0           | 92.9                                   | 57.8     | 83.9               |      |          | S    |
| 1-Methylnaphthalene  | 76               | 2.0   | 80.20                           | 0           | 94.6                                   | 43.5     | 88.5               |      |          | S    |
| 2-Methylnaphthalene  | 74               | 2.0   | 80.00                           | 0           | 92.8                                   | 34.2     | 94.5               |      |          |      |
| Acenaphthylene       | 77               | 2.5   | 80.20                           | 0           | 95.6                                   | 58.5     | 93.6               |      |          | S    |
| Acenaphthene         | 74               | 2.0   | 80.00                           | 0           | 91.9                                   | 45.5     | 90.9               |      |          | S    |
| Fluorene             | 7.0              | 0.80  | 8.020                           | 0           | 86.7                                   | 46.6     | 90.3               |      |          |      |
| Phenanthrene         | 3.6              | 0.60  | 4.020                           | 0           | 89.1                                   | 47.2     | 102                |      |          |      |
| Anthracene           | 3.6              | 0.60  | 4.020                           | 0           | 88.8                                   | 45.4     | 99.1               |      |          |      |
| Fluoranthene         | 7.3              | 0.30  | 8.020                           | 0           | 90.8                                   | 45.3     | 101                |      |          |      |
| Pyrene               | 7.5              | 0.30  | 8.020                           | 0           | 93.0                                   | 51.9     | 104                |      |          |      |
| Benz(a)anthracene    | 0.72             | 0.070 | 0.8020                          | 0           | 89.8                                   | 46.9     | 104                |      |          |      |
| Chrysene             | 3.6              | 0.20  | 4.020                           | 0           | 89.3                                   | 53.6     | 95.1               |      |          |      |
| Benzo(b)fluoranthene | 0.87             | 0.10  | 1.002                           | 0           | 86.8                                   | 54.3     | 97.9               |      |          |      |
| Benzo(k)fluoranthene | 0.46             | 0.070 | 0.5000                          | 0           | 92.0                                   | 47.4     | 109                |      |          |      |

### Qualifiers:

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R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

**Client:** Navajo Refining Company

**Project:** Monthly RO Reject

|                        |           |       |           |                |           |          |           |           |                       |      |  |
|------------------------|-----------|-------|-----------|----------------|-----------|----------|-----------|-----------|-----------------------|------|--|
| Sample ID              | LCS-19627 |       |           | SampType:      | LCS       |          |           | TestCode: | EPA Method 8310: PAHs |      |  |
| Client ID:             | LCSW      |       |           | Batch ID:      | 19627     |          |           | RunNo:    | 26846                 |      |  |
| Prep Date:             | 6/9/2015  |       |           | Analysis Date: | 6/16/2015 |          |           | SeqNo:    | 801381                |      |  |
|                        |           |       |           |                |           |          |           | Units:    | µg/L                  |      |  |
| Analyte                | Result    | PQL   | SPK value | SPK Ref Val    | %REC      | LowLimit | HighLimit | %RPD      | RPDLimit              | Qual |  |
| Benzo(a)pyrene         | 0.46      | 0.070 | 0.5020    | 0              | 91.6      | 56.3     | 98.6      |           |                       |      |  |
| Dibenz(a,h)anthracene  | 0.90      | 0.12  | 1.002     | 0              | 89.8      | 57.5     | 95.7      |           |                       |      |  |
| Benzo(g,h,i)perylene   | 0.92      | 0.12  | 1.000     | 0              | 92.0      | 55.9     | 98.6      |           |                       |      |  |
| Indeno(1,2,3-cd)pyrene | 1.8       | 0.25  | 2.004     | 0              | 90.8      | 52.8     | 95.3      |           |                       |      |  |
| Surr: Benzo(e)pyrene   | 13        |       | 20.00     |                | 66.2      | 37.2     | 136       |           |                       |      |  |

|                        |            |       |                          |             |                                 |          |             |       |          |      |
|------------------------|------------|-------|--------------------------|-------------|---------------------------------|----------|-------------|-------|----------|------|
| Sample ID              | LCSD-19627 |       | SampType: LCSD           |             | TestCode: EPA Method 8310: PAHs |          |             |       |          |      |
| Client ID:             | LCSS02     |       | Batch ID: 19627          |             | RunNo: 26846                    |          |             |       |          |      |
| Prep Date:             | 6/9/2015   |       | Analysis Date: 6/16/2015 |             | SeqNo: 801382                   |          | Units: µg/L |       |          |      |
| Analyte                | Result     | PQL   | SPK value                | SPK Ref Val | %REC                            | LowLimit | HighLimit   | %RPD  | RPDLimit | Qual |
| Naphthalene            | 70         | 2.0   | 80.00                    | 0           | 88.1                            | 57.8     | 83.9        | 5.29  | 20       | S    |
| 1-Methylnaphthalene    | 73         | 2.0   | 80.20                    | 0           | 90.7                            | 43.5     | 88.5        | 4.20  | 20       | S    |
| 2-Methylnaphthalene    | 71         | 2.0   | 80.00                    | 0           | 88.8                            | 34.2     | 94.5        | 4.35  | 20       |      |
| Acenaphthylene         | 75         | 2.5   | 80.20                    | 0           | 93.1                            | 58.5     | 93.6        | 2.66  | 20       |      |
| Acenaphthene           | 72         | 2.0   | 80.00                    | 0           | 89.8                            | 45.5     | 90.9        | 2.37  | 20       |      |
| Fluorene               | 6.8        | 0.80  | 8.020                    | 0           | 85.4                            | 46.6     | 90.3        | 1.45  | 20       |      |
| Phenanthrene           | 3.6        | 0.60  | 4.020                    | 0           | 89.8                            | 47.2     | 102         | 0.834 | 24       |      |
| Anthracene             | 3.6        | 0.60  | 4.020                    | 0           | 89.8                            | 45.4     | 99.1        | 1.11  | 20       |      |
| Fluoranthene           | 7.4        | 0.30  | 8.020                    | 0           | 91.9                            | 45.3     | 101         | 1.23  | 20.9     |      |
| Pyrene                 | 7.6        | 0.30  | 8.020                    | 0           | 94.4                            | 51.9     | 104         | 1.46  | 20.8     |      |
| Benz(a)anthracene      | 0.71       | 0.070 | 0.8020                   | 0           | 88.5                            | 46.9     | 104         | 1.40  | 20       |      |
| Chrysene               | 3.6        | 0.20  | 4.020                    | 0           | 89.3                            | 53.6     | 95.1        | 0     | 20       |      |
| Benzo(b)fluoranthene   | 0.86       | 0.10  | 1.002                    | 0           | 85.8                            | 54.3     | 97.9        | 1.16  | 20.6     |      |
| Benzo(k)fluoranthene   | 0.45       | 0.070 | 0.5000                   | 0           | 90.0                            | 47.4     | 109         | 2.20  | 20.8     |      |
| Benzo(a)pyrene         | 0.45       | 0.070 | 0.5020                   | 0           | 89.6                            | 56.3     | 98.6        | 2.20  | 20       |      |
| Dibenz(a,h)anthracene  | 0.87       | 0.12  | 1.002                    | 0           | 86.8                            | 57.5     | 95.7        | 3.39  | 20       |      |
| Benzo(g,h,i)perylene   | 0.89       | 0.12  | 1.000                    | 0           | 89.0                            | 55.9     | 98.6        | 3.31  | 20       |      |
| Indeno(1,2,3-cd)pyrene | 1.8        | 0.25  | 2.004                    | 0           | 87.8                            | 52.8     | 95.3        | 3.35  | 20       |      |
| Surr: Benzo(e)pyrene   | 14         |       | 20.00                    |             | 69.4                            | 37.2     | 136         | 0     |          |      |

### Qualifiers:

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 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

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 ND Not Detected at the Reporting Limit  
 P Sample pH Not In Range  
 RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                              |           |     |                          |             |                                          |          |             |      |          |      |
|------------------------------|-----------|-----|--------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                    | MB-19794  |     | SampType: MBLK           |             | TestCode: Total Phenolics by SW-846 9067 |          |             |      |          |      |
| Client ID:                   | PBW       |     | Batch ID: 19794          |             | RunNo: 26937                             |          |             |      |          |      |
| Prep Date:                   | 6/18/2015 |     | Analysis Date: 6/18/2015 |             | SeqNo: 804126                            |          | Units: µg/L |      |          |      |
| Analyte                      | Result    | PQL | SPK value                | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | ND        | 2.5 |                          |             |                                          |          |             |      |          |      |

|                              |           |     |                          |             |                                          |          |             |      |          |      |
|------------------------------|-----------|-----|--------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                    | LCS-19794 |     | SampType: LCS            |             | TestCode: Total Phenolics by SW-846 9067 |          |             |      |          |      |
| Client ID:                   | LCSW      |     | Batch ID: 19794          |             | RunNo: 26937                             |          |             |      |          |      |
| Prep Date:                   | 6/18/2015 |     | Analysis Date: 6/18/2015 |             | SeqNo: 804127                            |          | Units: µg/L |      |          |      |
| Analyte                      | Result    | PQL | SPK value                | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | 22        | 2.5 | 20.00                    | 0           | 108                                      | 64.4     | 135         |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |           |        |                          |             |                                           |          |             |      |          |      |
|------------|-----------|--------|--------------------------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-R26972 |        | SampType: MBLK           |             | TestCode: EPA 335.4: Total Cyanide Subbed |          |             |      |          |      |
| Client ID: | PBW       |        | Batch ID: R26972         |             | RunNo: 26972                              |          |             |      |          |      |
| Prep Date: |           |        | Analysis Date: 6/18/2015 |             | SeqNo: 805487                             |          | Units: mg/L |      |          |      |
| Analyte    | Result    | PQL    | SPK value                | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cyanide    | ND        | 0.0100 |                          |             |                                           |          |             |      |          |      |

|            |            |     |                          |             |                                           |          |             |      |          |      |
|------------|------------|-----|--------------------------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-R26972 |     | SampType: LCS            |             | TestCode: EPA 335.4: Total Cyanide Subbed |          |             |      |          |      |
| Client ID: | LCSW       |     | Batch ID: R26972         |             | RunNo: 26972                              |          |             |      |          |      |
| Prep Date: |            |     | Analysis Date: 6/18/2015 |             | SeqNo: 805488                             |          | Units: mg/L |      |          |      |
| Analyte    | Result     | PQL | SPK value                | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cyanide    | 0.501      |     | 0.5000                   | 0           | 100                                       | 90       | 110         |      |          |      |

|            |           |        |                |             |      |           |                                 |      |          |      |  |
|------------|-----------|--------|----------------|-------------|------|-----------|---------------------------------|------|----------|------|--|
| Sample ID  | MB-R26972 |        | SampType:      | MBLK        |      | TestCode: | EPA 335.4: Total Cyanide Subbed |      |          |      |  |
| Client ID: | PBW       |        | Batch ID:      | R26972      |      | RunNo:    | 26972                           |      |          |      |  |
| Prep Date: |           |        | Analysis Date: | 6/16/2015   |      | SeqNo:    | 805490                          |      | Units:   | mg/L |  |
| Analyte    | Result    | PQL    | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit | Qual |  |
| Cyanide    | ND        | 0.0100 |                |             |      |           |                                 |      |          |      |  |

|            |            |     |                          |             |                                           |          |             |      |          |      |
|------------|------------|-----|--------------------------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-R26972 |     | SampType: LCS            |             | TestCode: EPA 335.4: Total Cyanide Subbed |          |             |      |          |      |
| Client ID: | LCSW       |     | Batch ID: R26972         |             | RunNo: 26972                              |          |             |      |          |      |
| Prep Date: |            |     | Analysis Date: 6/16/2015 |             | SeqNo: 805491                             |          | Units: mg/L |      |          |      |
| Analyte    | Result     | PQL | SPK value                | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cyanide    | 0.503      |     | 0.5000                   | 0           | 101                                       | 90       | 110         |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|              |           |                          |           |             |                                                          |          |              |      |          |      |
|--------------|-----------|--------------------------|-----------|-------------|----------------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID    | MB-R26972 | SampType: MBLK           |           |             | TestCode: EPA 903.1: Ra 226 and EPA 904.0: Ra 228-Subbed |          |              |      |          |      |
| Client ID:   | PBW       | Batch ID: R26972         |           |             | RunNo: 26972                                             |          |              |      |          |      |
| Prep Date:   |           | Analysis Date: 6/16/2015 |           |             | SeqNo: 805511                                            |          | Units: pCi/L |      |          |      |
| Analyte      | Result    | PQL                      | SPK value | SPK Ref Val | %REC                                                     | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Radium-226   | 0.071     | 0.659                    |           |             |                                                          |          |              |      |          |      |
| Radium-226 ± | 0.324     | 0.659                    |           |             |                                                          |          |              |      |          |      |
| Radium-228   | 0.112     | 0.774                    |           |             |                                                          |          |              |      |          |      |
| Radium-228 ± | 0.344     | 0.774                    |           |             |                                                          |          |              |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506320

22-Jun-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                        |           |                          |           |             |                                               |          |             |      |          |      |
|------------------------|-----------|--------------------------|-----------|-------------|-----------------------------------------------|----------|-------------|------|----------|------|
| Sample ID              | MB-19650  | SampType: MBLK           |           |             | TestCode: SM2540C MOD: Total Dissolved Solids |          |             |      |          |      |
| Client ID:             | PBW       | Batch ID: 19650          |           |             | RunNo: 26772                                  |          |             |      |          |      |
| Prep Date:             | 6/10/2015 | Analysis Date: 6/11/2015 |           |             | SeqNo: 798169                                 |          | Units: mg/L |      |          |      |
| Analyte                | Result    | PQL                      | SPK value | SPK Ref Val | %REC                                          | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Total Dissolved Solids | ND        | 20.0                     |           |             |                                               |          |             |      |          |      |

|                        |           |                          |           |             |                                               |          |             |      |          |      |
|------------------------|-----------|--------------------------|-----------|-------------|-----------------------------------------------|----------|-------------|------|----------|------|
| Sample ID              | LCS-19650 | SampType: LCS            |           |             | TestCode: SM2540C MOD: Total Dissolved Solids |          |             |      |          |      |
| Client ID:             | LCSW      | Batch ID: 19650          |           |             | RunNo: 26772                                  |          |             |      |          |      |
| Prep Date:             | 6/10/2015 | Analysis Date: 6/11/2015 |           |             | SeqNo: 798170                                 |          | Units: mg/L |      |          |      |
| Analyte                | Result    | PQL                      | SPK value | SPK Ref Val | %REC                                          | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Total Dissolved Solids | 1000      | 20.0                     | 1000      | 0           | 100                                           | 80       | 120         |      |          |      |

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# Sample Log-In Check List

Client Name: **NAVAJO REFINING CO**

Work Order Number: **1506320**

RcptNo: 1

Received by/date:

*Jim* 04/06/15

Logged By:

Ashley Gallegos

6/6/2012

Completed By:

Ashley Gallegos

6/8/2015 10:03:30 AM

Reviewed By:

*[Signature]* 04/08/15

## Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? FedEx

## Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH: 6 (2 or 12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted? Yes
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by: *[Signature]*

## Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

## 18. Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 5.8     | Good      | Yes         |         |           |           |

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 871109

Project # P.O. # 167796

Tel. 505-345-3975 Fax 505-345-4107

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|  |  |  |   |  |  |  |  |  |
|--|--|--|---|--|--|--|--|--|
|  |  |  | ( |  |  |  |  |  |
|--|--|--|---|--|--|--|--|--|

---

Robert Combs

Sampler: Elizabeth Galsberry

|         |       |                             |
|---------|-------|-----------------------------|
| On Ice: | X Yes | <input type="checkbox"/> No |
|---------|-------|-----------------------------|

| Date   | Time | Matrix | Sample Request ID     | Container Type and # | Preservative Type                     | HEAL No. |
|--------|------|--------|-----------------------|----------------------|---------------------------------------|----------|
| 6-5-15 | 1354 | -202   | South Field PO Reject | 2 - 500ml P          | unpres H <sub>2</sub> SO <sub>4</sub> | 1500390  |
| 6-5-15 | 2:02 |        | Discharge             | 3-40ml VOA           | HCL                                   | -001     |
| 6-5-15 | 2:02 |        |                       | 1-500ml P            | HNO <sub>3</sub>                      |          |
| 6-5-15 | 2:02 |        |                       | 1-125ml P            | HNO <sub>3</sub>                      |          |
| 6-5-15 | 2:02 |        |                       | 1-500ml P            | NaOH                                  |          |
| 6-5-15 | 2:02 |        |                       | 2-1L P               | HNO <sub>3</sub>                      |          |
| 6-5-15 | 2:02 |        |                       | 3-40ml VOA           | HCL                                   |          |
| 6-5-15 | 2:02 |        |                       | 2 - 1L Glass         | unpres                                |          |
| 6-5-15 | 2:02 |        |                       | 1 - 1L Glass         | unpres                                |          |
| 6-5-15 | 2:02 |        |                       | 2-1L VOA             | unpres                                |          |
| 6-5-15 | 2:02 |        | Trip Blank            | 2-40ml VOA           | HCL                                   | -002     |

|       |          |       |     |                  |                     |              |                                                                                      |       |          |       |      |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------|----------|-------|-----|------------------|---------------------|--------------|--------------------------------------------------------------------------------------|-------|----------|-------|------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date: | 01/15/15 | Time: | 3pm | Relinquished by: | Elizabeth Salobares | Received by: |  | Date: | 01/15/15 | Time: | 1215 | Remarks: | Metals: As, Al, Ba, B, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, U, Zn<br>VOCs: 1,1,1-Trichloroethane; 1,1,2,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethane; 1,1,2-Trichloroethane; 1,1,2-Trichloroethane; 1,1,2-Trichloroethane; 1,1-Dichloroethane; 1,2-Dichloroethane; 1,2-Dichloroethane; Benzene; Carbon Tetrachloride; Chloroform; Dichloromethane; Ethylbenzene; Toluene; Total Xylenes; Vinyl Chloride<br>SVOCs: benzo(a)pyrene, phenol, 1-methylvinylpyrene, 2-methylvinylpyrene, naphthalene |
| Date: |          | Time: |     | Relinquished by: |                     | Received by: |                                                                                      | Date: |          | Time: |      |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Navajo Refining Company, LLC  
501 E. Main  
Artesia, NM 88210  
(Tel) 575.748.3311  
(Fax) 575.746.5451

## Monthly RO Reject Sample Details Attachment



|                      |                         |
|----------------------|-------------------------|
| Project Name         | Monthly RO Reject       |
| Samplers Name        | Elizabeth Salisbury     |
| Samplers Affiliation | Navajo Refining Co. LLC |
| Start Date and Time  | 6/5/2015 @ 2:05 pm      |
| End Date and Time    | 6/5/2015 @ 1:54 pm      |

|                         |                                          |
|-------------------------|------------------------------------------|
| Sample Type             | Grab <input checked="" type="checkbox"/> |
| Time Weighted Composite | <input type="checkbox"/>                 |
| Flow Weighted Composite | <input type="checkbox"/>                 |

|                          |     |
|--------------------------|-----|
| Parts / Sample Intervals | One |
|--------------------------|-----|

|                   |                                     |
|-------------------|-------------------------------------|
| Physical Property |                                     |
| Solid             | <input type="checkbox"/>            |
| Liquid            | <input checked="" type="checkbox"/> |
| Sludge            | <input type="checkbox"/>            |

|                 |                         |
|-----------------|-------------------------|
| Type of Sampler | Directly to sample jars |
|-----------------|-------------------------|

|                            |                                                                                                                                  |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Outfall / Sample Location: | <input type="checkbox"/> North Field R.O. Reject Discharge <input checked="" type="checkbox"/> South Field R.O. Reject Discharge |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------|

| Container | Size  | Material | # of Containers | Neat (None) | Preservatives |      |       |      |         |        | Analysis and/or Method Requested |
|-----------|-------|----------|-----------------|-------------|---------------|------|-------|------|---------|--------|----------------------------------|
|           |       |          |                 |             | HCL           | HNO3 | H2SO4 | NaOH | Na2S2O3 | NaHSD4 |                                  |
| 1         | 500ml | Plastic  | 2               | X           |               |      | X     |      |         |        |                                  |
| 2         | 40ml  | VDA      | 3               |             | X             |      |       |      |         |        |                                  |
| 3         | 500ml | Plastic  | 1               |             |               | X    |       |      |         |        |                                  |
| 4         | 125ml | Plastic  | 1               |             |               | X    |       |      |         |        |                                  |
| 5         | 500ml | Plastic  | 2               |             |               | X    |       |      |         |        |                                  |
| 6         | 1L    | Plastic  | 3               |             |               |      |       | X    |         |        |                                  |
| 7         | 40ml  | VDA      | 2               |             | X             |      |       |      |         |        |                                  |
| 8         | 1L    | Glass    | 1               | X           |               |      |       |      |         |        |                                  |
| 9         | 1L    | Glass    | 2               | X           |               |      |       |      |         |        |                                  |
| 10        | 40ml  | VDA      | 2               | X           |               |      |       |      |         |        |                                  |
| 11        | 40ml  | VDA      | 2               |             | X             |      |       |      |         |        |                                  |

|                                           |                                                                                                |
|-------------------------------------------|------------------------------------------------------------------------------------------------|
| Field Data (Weather, Observations, Etc.): | 8/5/2015 01:55 Tmp. 89.6 F. Humidity 38%. Wind Dir. SE. Wind Speed 17.3 mph. Conditions Clear. |
|-------------------------------------------|------------------------------------------------------------------------------------------------|

|                |  |
|----------------|--|
| Date and Time: |  |
|----------------|--|

|                    |               |
|--------------------|---------------|
| Field Temp. 25.7 C | Field pH 7.69 |
|--------------------|---------------|

|                |                                     |
|----------------|-------------------------------------|
| Storage Method |                                     |
| Ice            | <input checked="" type="checkbox"/> |
| Refrigerated   | <input type="checkbox"/>            |
| Other          | <input type="checkbox"/>            |

|                |                                     |
|----------------|-------------------------------------|
| Shipping Media |                                     |
| Ice            | <input checked="" type="checkbox"/> |
| Other          | <input type="checkbox"/>            |



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

July 22, 2015

Robert Combs  
Navajo Refining Company  
P.O. Box 159  
Artesia, NM 88211-0159  
TEL: (575) 748-3311  
FAX

RE: Monthly RO Reject

OrderNo.: 1507157

Dear Robert Combs:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/3/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1507157

Date Reported: 7/22/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** R.O. Reject

**Project:** Monthly RO Reject

**Collection Date:** 7/1/2015 2:50:00 PM

**Lab ID:** 1507157-001

**Matrix:** AQUEOUS

**Received Date:** 7/3/2015 9:45:00 AM

| Analyses                                              | Result | RL      | Qual | Units    | DF  | Date Analyzed        | Batch               |
|-------------------------------------------------------|--------|---------|------|----------|-----|----------------------|---------------------|
| <b>EPA 200.8: DISSOLVED METALS</b>                    |        |         |      |          |     |                      | Analyst: <b>DBD</b> |
| Arsenic                                               | ND     | 0.0050  |      | mg/L     | 5   | 7/14/2015 1:48:38 PM | R27505              |
| Lead                                                  | ND     | 0.00050 |      | mg/L     | 1   | 7/13/2015 4:43:45 PM | R27474              |
| Selenium                                              | 0.011  | 0.0010  |      | mg/L     | 1   | 7/14/2015 1:11:54 PM | R27505              |
| Uranium                                               | 0.0066 | 0.00050 |      | mg/L     | 1   | 7/13/2015 4:43:45 PM | R27474              |
| <b>EPA 903.1: RA 226 AND EPA 904.0: RA 228-SUBBED</b> |        |         |      |          |     |                      | Analyst: <b>SUB</b> |
| Radium-226                                            | 1.79   | 0.574   |      | pCi/L    | 1   | 7/16/2015            | R27657              |
| Radium-226 ±                                          | 0.792  | 0.574   |      | pCi/L    | 1   | 7/16/2015            | R27657              |
| Radium-228                                            | 0.141  | 0.802   |      | pCi/L    | 1   | 7/16/2015            | R27657              |
| Radium-228 ±                                          | 0.359  | 0.802   |      | pCi/L    | 1   | 7/16/2015            | R27657              |
| <b>EPA METHOD 300.0: ANIONS</b>                       |        |         |      |          |     |                      | Analyst: <b>LGT</b> |
| Fluoride                                              | 3.7    | 2.0     |      | mg/L     | 20  | 7/6/2015 10:17:45 PM | R27319              |
| Chloride                                              | 210    | 10      |      | mg/L     | 20  | 7/6/2015 10:17:45 PM | R27319              |
| Sulfate                                               | 1800   | 50      |      | mg/L     | 100 | 7/15/2015 4:09:28 PM | R27535              |
| Nitrate+Nitrite as N                                  | 2.1    | 1.0     |      | mg/L     | 5   | 7/6/2015 11:32:12 PM | R27319              |
| <b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>            |        |         |      |          |     |                      | Analyst: <b>KS</b>  |
| Total Dissolved Solids                                | 3890   | 20.0    | *    | mg/L     | 1   | 7/9/2015 2:45:00 PM  | 20140               |
| <b>EPA 335.4: TOTAL CYANIDE SUBBED</b>                |        |         |      |          |     |                      | Analyst: <b>SUB</b> |
| Cyanide                                               | ND     | 0.0100  |      | mg/L     | 1   | 7/13/2015            | R27657              |
| <b>SM4500-H+B: PH</b>                                 |        |         |      |          |     |                      | Analyst: <b>JRR</b> |
| pH                                                    | 8.04   | 1.68    | H    | pH units | 1   | 7/9/2015 10:05:05 PM | R27410              |
| <b>EPA METHOD 200.7: DISSOLVED METALS</b>             |        |         |      |          |     |                      | Analyst: <b>ELS</b> |
| Aluminum                                              | ND     | 0.020   |      | mg/L     | 1   | 7/7/2015 3:24:49 PM  | R27323              |
| Barium                                                | 0.074  | 0.0020  |      | mg/L     | 1   | 7/7/2015 3:24:49 PM  | R27323              |
| Boron                                                 | 0.088  | 0.040   |      | mg/L     | 1   | 7/7/2015 3:24:49 PM  | R27323              |
| Cadmium                                               | ND     | 0.0020  |      | mg/L     | 1   | 7/7/2015 3:24:49 PM  | R27323              |
| Chromium                                              | ND     | 0.0060  |      | mg/L     | 1   | 7/7/2015 3:24:49 PM  | R27323              |
| Cobalt                                                | ND     | 0.0060  |      | mg/L     | 1   | 7/7/2015 3:24:49 PM  | R27323              |
| Copper                                                | ND     | 0.0060  |      | mg/L     | 1   | 7/7/2015 3:24:49 PM  | R27323              |
| Iron                                                  | ND     | 0.020   |      | mg/L     | 1   | 7/7/2015 3:24:49 PM  | R27323              |
| Manganese                                             | ND     | 0.0020  |      | mg/L     | 1   | 7/7/2015 3:24:49 PM  | R27323              |
| Molybdenum                                            | ND     | 0.0080  |      | mg/L     | 1   | 7/7/2015 3:24:49 PM  | R27323              |
| Nickel                                                | ND     | 0.010   |      | mg/L     | 1   | 7/7/2015 3:24:49 PM  | R27323              |
| Silver                                                | ND     | 0.0050  |      | mg/L     | 1   | 7/7/2015 3:24:49 PM  | R27323              |
| Zinc                                                  | 0.028  | 0.010   |      | mg/L     | 1   | 7/7/2015 3:24:49 PM  | R27323              |
| <b>EPA METHOD 245.1: MERCURY</b>                      |        |         |      |          |     |                      | Analyst: <b>JLF</b> |
| Mercury                                               | ND     | 0.00020 |      | mg/L     | 1   | 7/8/2015 4:35:51 PM  | 20160               |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |   |                                                 |    |                                                    |
|--------------------|---|-------------------------------------------------|----|----------------------------------------------------|
| <b>Qualifiers:</b> | * | Value exceeds Maximum Contaminant Level.        | B  | Analyte detected in the associated Method Blank    |
|                    | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |
|                    | J | Analyte detected below quantitation limits      | ND | Not Detected at the Reporting Limit                |
|                    | O | RSD is greater than RSDlimit                    | P  | Sample pH Not In Range                             |
|                    | R | RPD outside accepted recovery limits            | RL | Reporting Detection Limit                          |
|                    | S | Spike Recovery outside accepted recovery limits |    |                                                    |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1507157

Date Reported: 7/22/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** R.O. Reject

**Project:** Monthly RO Reject

**Collection Date:** 7/1/2015 2:50:00 PM

**Lab ID:** 1507157-001

**Matrix:** AQUEOUS

**Received Date:** 7/3/2015 9:45:00 AM

| Analyses                                | Result | RL        | Qual | Units | DF | Date Analyzed        | Batch                |
|-----------------------------------------|--------|-----------|------|-------|----|----------------------|----------------------|
| <b>EPA METHOD 8011/504.1: EDB</b>       |        |           |      |       |    |                      | Analyst: <b>KJH</b>  |
| 1,2-Dibromoethane                       | ND     | 0.010     |      | µg/L  | 1  | 7/9/2015 5:02:41 PM  | 20171                |
| <b>EPA METHOD 8082: PCB'S</b>           |        |           |      |       |    |                      | Analyst: <b>SCC</b>  |
| Aroclor 1016                            | ND     | 1.0       |      | µg/L  | 1  | 7/14/2015 8:23:58 AM | 20149                |
| Aroclor 1221                            | ND     | 1.0       |      | µg/L  | 1  | 7/14/2015 8:23:58 AM | 20149                |
| Aroclor 1232                            | ND     | 1.0       |      | µg/L  | 1  | 7/14/2015 8:23:58 AM | 20149                |
| Aroclor 1242                            | ND     | 1.0       |      | µg/L  | 1  | 7/14/2015 8:23:58 AM | 20149                |
| Aroclor 1248                            | ND     | 1.0       |      | µg/L  | 1  | 7/14/2015 8:23:58 AM | 20149                |
| Aroclor 1254                            | ND     | 1.0       |      | µg/L  | 1  | 7/14/2015 8:23:58 AM | 20149                |
| Aroclor 1260                            | ND     | 1.0       |      | µg/L  | 1  | 7/14/2015 8:23:58 AM | 20149                |
| Surr: Decachlorobiphenyl                | 63.2   | 44.5-110  |      | %REC  | 1  | 7/14/2015 8:23:58 AM | 20149                |
| Surr: Tetrachloro-m-xylene              | 65.6   | 31.8-95.7 |      | %REC  | 1  | 7/14/2015 8:23:58 AM | 20149                |
| <b>EPA METHOD 8015M/D: DIESEL RANGE</b> |        |           |      |       |    |                      | Analyst: <b>KJH</b>  |
| Diesel Range Organics (DRO)             | ND     | 1.0       |      | mg/L  | 1  | 7/6/2015 8:38:10 PM  | 20109                |
| Motor Oil Range Organics (MRO)          | ND     | 5.0       |      | mg/L  | 1  | 7/6/2015 8:38:10 PM  | 20109                |
| Surr: DNOP                              | 99.5   | 76.5-150  |      | %REC  | 1  | 7/6/2015 8:38:10 PM  | 20109                |
| <b>EPA METHOD 8015D: GASOLINE RANGE</b> |        |           |      |       |    |                      | Analyst: <b>NSB</b>  |
| Gasoline Range Organics (GRO)           | ND     | 0.050     |      | mg/L  | 1  | 7/7/2015 4:57:38 PM  | R27335               |
| Surr: BFB                               | 86.0   | 57.8-137  |      | %REC  | 1  | 7/7/2015 4:57:38 PM  | R27335               |
| <b>EPA METHOD 8310: PAHS</b>            |        |           |      |       |    |                      | Analyst: <b>SCC</b>  |
| Naphthalene                             | ND     | 2.0       |      | µg/L  | 1  | 7/8/2015 3:12:02 PM  | 20150                |
| 1-Methylnaphthalene                     | ND     | 2.0       |      | µg/L  | 1  | 7/8/2015 3:12:02 PM  | 20150                |
| 2-Methylnaphthalene                     | ND     | 2.0       |      | µg/L  | 1  | 7/8/2015 3:12:02 PM  | 20150                |
| Benzo(a)pyrene                          | ND     | 0.070     |      | µg/L  | 1  | 7/8/2015 3:12:02 PM  | 20150                |
| Surr: Benzo(e)pyrene                    | 58.5   | 37.2-136  |      | %REC  | 1  | 7/8/2015 3:12:02 PM  | 20150                |
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |           |      |       |    |                      | Analyst: <b>cadg</b> |
| Benzene                                 | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| Toluene                                 | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| Ethylbenzene                            | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| 1,2-Dichloroethane (EDC)                | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| 1,2-Dibromoethane (EDB)                 | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| Carbon Tetrachloride                    | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| Chloroform                              | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| 1,1-Dichloroethane                      | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| 1,1-Dichloroethene                      | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| Methylene Chloride                      | ND     | 3.0       |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| 1,1,2,2-Tetrachloroethane               | ND     | 2.0       |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| Tetrachloroethene (PCE)                 | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                   |                                                      |
|--------------------|---------------------------------------------------|------------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
|                    | E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
|                    | J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
|                    | O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
|                    | R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
|                    | S Spike Recovery outside accepted recovery limits |                                                      |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1507157

Date Reported: 7/22/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** R.O. Reject

**Project:** Monthly RO Reject

**Collection Date:** 7/1/2015 2:50:00 PM

**Lab ID:** 1507157-001

**Matrix:** AQUEOUS

**Received Date:** 7/3/2015 9:45:00 AM

| Analyses                              | Result | RL     | Qual | Units | DF | Date Analyzed        | Batch                |
|---------------------------------------|--------|--------|------|-------|----|----------------------|----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b>    |        |        |      |       |    |                      | Analyst: <b>cadg</b> |
| 1,1,1-Trichloroethane                 | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| 1,1,2-Trichloroethane                 | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| Trichloroethene (TCE)                 | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| Vinyl chloride                        | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| Xylenes, Total                        | ND     | 1.5    |      | µg/L  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| Surr: 1,2-Dichloroethane-d4           | 97.5   | 70-130 |      | %REC  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| Surr: 4-Bromofluorobenzene            | 104    | 70-130 |      | %REC  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| Surr: Dibromofluoromethane            | 93.5   | 70-130 |      | %REC  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| Surr: Toluene-d8                      | 102    | 70-130 |      | %REC  | 1  | 7/10/2015 4:49:29 AM | R27395               |
| <b>TOTAL PHENOLICS BY SW-846 9067</b> |        |        |      |       |    |                      | Analyst: <b>SCC</b>  |
| Phenolics, Total Recoverable          | ND     | 2.5    |      | µg/L  | 1  | 7/7/2015             | 20119                |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |   |                                                 |    |                                                    |              |
|--------------------|---|-------------------------------------------------|----|----------------------------------------------------|--------------|
| <b>Qualifiers:</b> | * | Value exceeds Maximum Contaminant Level.        | B  | Analyte detected in the associated Method Blank    | Page 3 of 27 |
|                    | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |              |
|                    | J | Analyte detected below quantitation limits      | ND | Not Detected at the Reporting Limit                |              |
|                    | O | RSD is greater than RSDlimit                    | P  | Sample pH Not In Range                             |              |
|                    | R | RPD outside accepted recovery limits            | RL | Reporting Detection Limit                          |              |
|                    | S | Spike Recovery outside accepted recovery limits |    |                                                    |              |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1507157

Date Reported: 7/22/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** Trip Blank

**Project:** Monthly RO Reject

**Collection Date:**

**Lab ID:** 1507157-002

**Matrix:** TRIP BLANK

**Received Date:** 7/3/2015 9:45:00 AM

| Analyses                           | Result | RL    | Qual | Units | DF | Date Analyzed        | Batch                |
|------------------------------------|--------|-------|------|-------|----|----------------------|----------------------|
| <b>EPA METHOD 8011/504.1: EDB</b>  |        |       |      |       |    |                      | Analyst: <b>KJH</b>  |
| 1,2-Dibromoethane                  | ND     | 0.010 |      | µg/L  | 1  | 7/9/2015 5:16:26 PM  | 20171                |
| <b>EPA METHOD 8260B: VOLATILES</b> |        |       |      |       |    |                      | Analyst: <b>cadg</b> |
| Benzene                            | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Toluene                            | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Ethylbenzene                       | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Methyl tert-butyl ether (MTBE)     | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| 1,2,4-Trimethylbenzene             | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| 1,3,5-Trimethylbenzene             | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| 1,2-Dichloroethane (EDC)           | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| 1,2-Dibromoethane (EDB)            | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Naphthalene                        | ND     | 2.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| 1-Methylnaphthalene                | ND     | 4.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| 2-Methylnaphthalene                | ND     | 4.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Acetone                            | ND     | 10    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Bromobenzene                       | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Bromodichloromethane               | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Bromoform                          | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Bromomethane                       | ND     | 3.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| 2-Butanone                         | ND     | 10    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Carbon disulfide                   | ND     | 10    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Carbon Tetrachloride               | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Chlorobenzene                      | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Chloroethane                       | ND     | 2.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Chloroform                         | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Chloromethane                      | ND     | 3.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| 2-Chlorotoluene                    | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| 4-Chlorotoluene                    | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| cis-1,2-DCE                        | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| cis-1,3-Dichloropropene            | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| 1,2-Dibromo-3-chloropropane        | ND     | 2.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Dibromochloromethane               | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Dibromomethane                     | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| 1,2-Dichlorobenzene                | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| 1,3-Dichlorobenzene                | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| 1,4-Dichlorobenzene                | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| Dichlorodifluoromethane            | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| 1,1-Dichloroethane                 | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| 1,1-Dichloroethene                 | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |
| 1,2-Dichloropropane                | ND     | 1.0   |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395               |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |   |                                                 |    |                                                    |              |
|--------------------|---|-------------------------------------------------|----|----------------------------------------------------|--------------|
| <b>Qualifiers:</b> | * | Value exceeds Maximum Contaminant Level.        | B  | Analyte detected in the associated Method Blank    | Page 4 of 27 |
|                    | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |              |
|                    | J | Analyte detected below quantitation limits      | ND | Not Detected at the Reporting Limit                |              |
|                    | O | RSD is greater than RSDlimit                    | P  | Sample pH Not In Range                             |              |
|                    | R | RPD outside accepted recovery limits            | RL | Reporting Detection Limit                          |              |
|                    | S | Spike Recovery outside accepted recovery limits |    |                                                    |              |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1507157

Date Reported: 7/22/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** Trip Blank

**Project:** Monthly RO Reject

**Collection Date:**

**Lab ID:** 1507157-002

**Matrix:** TRIP BLANK

**Received Date:** 7/3/2015 9:45:00 AM

| Analyses                           | Result | RL     | Qual | Units | DF | Date Analyzed        | Batch         |
|------------------------------------|--------|--------|------|-------|----|----------------------|---------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |        |      |       |    |                      | Analyst: cadg |
| 1,3-Dichloropropane                | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| 2,2-Dichloropropane                | ND     | 2.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| 1,1-Dichloropropene                | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| Hexachlorobutadiene                | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| 2-Hexanone                         | ND     | 10     |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| Isopropylbenzene                   | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| 4-Isopropyltoluene                 | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| 4-Methyl-2-pentanone               | ND     | 10     |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| Methylene Chloride                 | ND     | 3.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| n-Butylbenzene                     | ND     | 3.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| n-Propylbenzene                    | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| sec-Butylbenzene                   | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| Styrene                            | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| tert-Butylbenzene                  | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| 1,1,1,2-Tetrachloroethane          | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| 1,1,2,2-Tetrachloroethane          | ND     | 2.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| Tetrachloroethene (PCE)            | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| trans-1,2-DCE                      | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| trans-1,3-Dichloropropene          | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| 1,2,3-Trichlorobenzene             | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| 1,2,4-Trichlorobenzene             | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| 1,1,1-Trichloroethane              | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| 1,1,2-Trichloroethane              | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| Trichloroethene (TCE)              | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| Trichlorofluoromethane             | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| 1,2,3-Trichloropropane             | ND     | 2.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| Vinyl chloride                     | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| Xylenes, Total                     | ND     | 1.5    |      | µg/L  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| Surr: 1,2-Dichloroethane-d4        | 97.1   | 70-130 |      | %REC  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| Surr: 4-Bromofluorobenzene         | 107    | 70-130 |      | %REC  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| Surr: Dibromofluoromethane         | 95.8   | 70-130 |      | %REC  | 1  | 7/10/2015 5:18:14 AM | R27395        |
| Surr: Toluene-d8                   | 102    | 70-130 |      | %REC  | 1  | 7/10/2015 5:18:14 AM | R27395        |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                   |                                                      |
|--------------------|---------------------------------------------------|------------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
|                    | E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
|                    | J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
|                    | O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
|                    | R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
|                    | S Spike Recovery outside accepted recovery limits |                                                      |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                       |                                |        |                                                     |             |                    |          |           |      |          |      |
|-----------------------|--------------------------------|--------|-----------------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>MB</b>   | SampType: <b>MBLK</b>          |        | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |             |                    |          |           |      |          |      |
| Client ID: <b>PBW</b> | Batch ID: <b>R27323</b>        |        | RunNo: <b>27323</b>                                 |             |                    |          |           |      |          |      |
| Prep Date:            | Analysis Date: <b>7/7/2015</b> |        | SeqNo: <b>818884</b>                                |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte               | Result                         | PQL    | SPK value                                           | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum              | ND                             | 0.020  |                                                     |             |                    |          |           |      |          |      |
| Barium                | ND                             | 0.0020 |                                                     |             |                    |          |           |      |          |      |
| Boron                 | ND                             | 0.040  |                                                     |             |                    |          |           |      |          |      |
| Cadmium               | ND                             | 0.0020 |                                                     |             |                    |          |           |      |          |      |
| Chromium              | ND                             | 0.0060 |                                                     |             |                    |          |           |      |          |      |
| Cobalt                | ND                             | 0.0060 |                                                     |             |                    |          |           |      |          |      |
| Copper                | ND                             | 0.0060 |                                                     |             |                    |          |           |      |          |      |
| Iron                  | ND                             | 0.020  |                                                     |             |                    |          |           |      |          |      |
| Manganese             | ND                             | 0.0020 |                                                     |             |                    |          |           |      |          |      |
| Molybdenum            | ND                             | 0.0080 |                                                     |             |                    |          |           |      |          |      |
| Nickel                | ND                             | 0.010  |                                                     |             |                    |          |           |      |          |      |
| Silver                | ND                             | 0.0050 |                                                     |             |                    |          |           |      |          |      |
| Zinc                  | ND                             | 0.010  |                                                     |             |                    |          |           |      |          |      |

|                        |                                |        |                                                     |             |                    |          |           |      |          |      |
|------------------------|--------------------------------|--------|-----------------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>LCS</b>   | SampType: <b>LCS</b>           |        | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |             |                    |          |           |      |          |      |
| Client ID: <b>LCSW</b> | Batch ID: <b>R27323</b>        |        | RunNo: <b>27323</b>                                 |             |                    |          |           |      |          |      |
| Prep Date:             | Analysis Date: <b>7/7/2015</b> |        | SeqNo: <b>818885</b>                                |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                | Result                         | PQL    | SPK value                                           | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum               | 0.53                           | 0.020  | 0.5000                                              | 0           | 106                | 85       | 115       |      |          |      |
| Barium                 | 0.47                           | 0.0020 | 0.5000                                              | 0           | 94.9               | 85       | 115       |      |          |      |
| Boron                  | 0.50                           | 0.040  | 0.5000                                              | 0           | 100                | 85       | 115       |      |          |      |
| Cadmium                | 0.51                           | 0.0020 | 0.5000                                              | 0           | 102                | 85       | 115       |      |          |      |
| Chromium               | 0.48                           | 0.0060 | 0.5000                                              | 0           | 96.4               | 85       | 115       |      |          |      |
| Cobalt                 | 0.49                           | 0.0060 | 0.5000                                              | 0           | 97.9               | 85       | 115       |      |          |      |
| Copper                 | 0.47                           | 0.0060 | 0.5000                                              | 0           | 95.0               | 85       | 115       |      |          |      |
| Iron                   | 0.47                           | 0.020  | 0.5000                                              | 0           | 93.1               | 85       | 115       |      |          |      |
| Manganese              | 0.48                           | 0.0020 | 0.5000                                              | 0           | 96.9               | 85       | 115       |      |          |      |
| Molybdenum             | 0.49                           | 0.0080 | 0.5000                                              | 0           | 98.0               | 85       | 115       |      |          |      |
| Nickel                 | 0.48                           | 0.010  | 0.5000                                              | 0           | 95.7               | 85       | 115       |      |          |      |
| Silver                 | 0.099                          | 0.0050 | 0.1000                                              | 0           | 99.3               | 85       | 115       |      |          |      |
| Zinc                   | 0.47                           | 0.010  | 0.5000                                              | 0           | 94.4               | 85       | 115       |      |          |      |

|                           |                                |        |                                                     |             |                    |          |           |      |          |      |
|---------------------------|--------------------------------|--------|-----------------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>LLLCS</b>    | SampType: <b>LCSLL</b>         |        | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |             |                    |          |           |      |          |      |
| Client ID: <b>BatchQC</b> | Batch ID: <b>R27323</b>        |        | RunNo: <b>27323</b>                                 |             |                    |          |           |      |          |      |
| Prep Date:                | Analysis Date: <b>7/7/2015</b> |        | SeqNo: <b>818886</b>                                |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                   | Result                         | PQL    | SPK value                                           | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum                  | ND                             | 0.020  | 0.01000                                             | 0           | 147                | 50       | 150       |      |          |      |
| Barium                    | 0.0022                         | 0.0020 | 0.002000                                            | 0           | 112                | 50       | 150       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |         |                |          |           |                                    |        |      |  |  |  |
|------------|---------|----------------|----------|-----------|------------------------------------|--------|------|--|--|--|
| Sample ID  | LLLCS   | SampType:      | LCSLL    | TestCode: | EPA Method 200.7: Dissolved Metals |        |      |  |  |  |
| Client ID: | BatchQC | Batch ID:      | R27323   | RunNo:    | 27323                              |        |      |  |  |  |
| Prep Date: |         | Analysis Date: | 7/7/2015 | SeqNo:    | 818886                             | Units: | mg/L |  |  |  |

| Analyte    | Result | PQL    | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|------------|--------|--------|-----------|-------------|------|----------|-----------|------|----------|------|
| Boron      | ND     | 0.040  | 0.04000   | 0           | 89.4 | 50       | 150       |      |          |      |
| Cadmium    | 0.0020 | 0.0020 | 0.002000  | 0           | 101  | 50       | 150       |      |          |      |
| Chromium   | ND     | 0.0060 | 0.006000  | 0           | 89.8 | 50       | 150       |      |          |      |
| Cobalt     | ND     | 0.0060 | 0.006000  | 0           | 97.2 | 50       | 150       |      |          |      |
| Copper     | ND     | 0.0060 | 0.006000  | 0           | 99.2 | 50       | 150       |      |          |      |
| Iron       | 0.022  | 0.020  | 0.02000   | 0           | 112  | 50       | 150       |      |          |      |
| Manganese  | ND     | 0.0020 | 0.002000  | 0           | 98.0 | 50       | 150       |      |          |      |
| Molybdenum | 0.0092 | 0.0080 | 0.008000  | 0           | 115  | 50       | 150       |      |          |      |
| Nickel     | ND     | 0.010  | 0.005000  | 0           | 92.4 | 50       | 150       |      |          |      |
| Silver     | 0.0055 | 0.0050 | 0.005000  | 0           | 109  | 50       | 150       |      |          |      |
| Zinc       | ND     | 0.010  | 0.005000  | 0           | 90.4 | 50       | 150       |      |          |      |

|            |     |                |          |           |                                    |        |      |  |  |  |
|------------|-----|----------------|----------|-----------|------------------------------------|--------|------|--|--|--|
| Sample ID  | MB  | SampType:      | MBLK     | TestCode: | EPA Method 200.7: Dissolved Metals |        |      |  |  |  |
| Client ID: | PBW | Batch ID:      | R27323   | RunNo:    | 27323                              |        |      |  |  |  |
| Prep Date: |     | Analysis Date: | 7/7/2015 | SeqNo:    | 818887                             | Units: | mg/L |  |  |  |

| Analyte    | Result | PQL    | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|------------|--------|--------|-----------|-------------|------|----------|-----------|------|----------|------|
| Aluminum   | ND     | 0.020  |           |             |      |          |           |      |          |      |
| Barium     | ND     | 0.0020 |           |             |      |          |           |      |          |      |
| Boron      | ND     | 0.040  |           |             |      |          |           |      |          |      |
| Cadmium    | ND     | 0.0020 |           |             |      |          |           |      |          |      |
| Chromium   | ND     | 0.0060 |           |             |      |          |           |      |          |      |
| Cobalt     | ND     | 0.0060 |           |             |      |          |           |      |          |      |
| Copper     | ND     | 0.0060 |           |             |      |          |           |      |          |      |
| Iron       | ND     | 0.020  |           |             |      |          |           |      |          |      |
| Manganese  | ND     | 0.0020 |           |             |      |          |           |      |          |      |
| Molybdenum | ND     | 0.0080 |           |             |      |          |           |      |          |      |
| Nickel     | ND     | 0.010  |           |             |      |          |           |      |          |      |
| Silver     | ND     | 0.0050 |           |             |      |          |           |      |          |      |
| Zinc       | ND     | 0.010  |           |             |      |          |           |      |          |      |

|            |      |                |          |           |                                    |        |      |  |  |  |
|------------|------|----------------|----------|-----------|------------------------------------|--------|------|--|--|--|
| Sample ID  | LCS  | SampType:      | LCS      | TestCode: | EPA Method 200.7: Dissolved Metals |        |      |  |  |  |
| Client ID: | LCSW | Batch ID:      | R27323   | RunNo:    | 27323                              |        |      |  |  |  |
| Prep Date: |      | Analysis Date: | 7/7/2015 | SeqNo:    | 818888                             | Units: | mg/L |  |  |  |

| Analyte  | Result | PQL    | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|----------|--------|--------|-----------|-------------|------|----------|-----------|------|----------|------|
| Aluminum | 0.54   | 0.020  | 0.5000    | 0           | 108  | 85       | 115       |      |          |      |
| Barium   | 0.48   | 0.0020 | 0.5000    | 0           | 95.6 | 85       | 115       |      |          |      |
| Boron    | 0.51   | 0.040  | 0.5000    | 0           | 101  | 85       | 115       |      |          |      |
| Cadmium  | 0.51   | 0.0020 | 0.5000    | 0           | 103  | 85       | 115       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
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O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |                         |        |                  |               |      |                                              |           |      |          |      |
|------------|-------------------------|--------|------------------|---------------|------|----------------------------------------------|-----------|------|----------|------|
| Sample ID  | LCS                     |        | SampType: LCS    |               |      | TestCode: EPA Method 200.7: Dissolved Metals |           |      |          |      |
| Client ID: | LCSW                    |        | Batch ID: R27323 |               |      | RunNo: 27323                                 |           |      |          |      |
| Prep Date: | Analysis Date: 7/7/2015 |        |                  | SeqNo: 818888 |      | Units: mg/L                                  |           |      |          |      |
| Analyte    | Result                  | PQL    | SPK value        | SPK Ref Val   | %REC | LowLimit                                     | HighLimit | %RPD | RPDLimit | Qual |
| Chromium   | 0.48                    | 0.0060 | 0.5000           | 0             | 96.3 | 85                                           | 115       |      |          |      |
| Cobalt     | 0.49                    | 0.0060 | 0.5000           | 0             | 98.5 | 85                                           | 115       |      |          |      |
| Copper     | 0.48                    | 0.0060 | 0.5000           | 0             | 96.1 | 85                                           | 115       |      |          |      |
| Iron       | 0.49                    | 0.020  | 0.5000           | 0             | 97.1 | 85                                           | 115       |      |          |      |
| Manganese  | 0.49                    | 0.0020 | 0.5000           | 0             | 97.6 | 85                                           | 115       |      |          |      |
| Molybdenum | 0.49                    | 0.0080 | 0.5000           | 0             | 98.1 | 85                                           | 115       |      |          |      |
| Nickel     | 0.48                    | 0.010  | 0.5000           | 0             | 96.1 | 85                                           | 115       |      |          |      |
| Silver     | 0.10                    | 0.0050 | 0.1000           | 0             | 99.9 | 85                                           | 115       |      |          |      |
| Zinc       | 0.48                    | 0.010  | 0.5000           | 0             | 95.0 | 85                                           | 115       |      |          |      |

|            |         |        |                         |             |                                              |          |             |      |          |      |
|------------|---------|--------|-------------------------|-------------|----------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LLLCS   |        | SampType: LCSLL         |             | TestCode: EPA Method 200.7: Dissolved Metals |          |             |      |          |      |
| Client ID: | BatchQC |        | Batch ID: R27323        |             | RunNo: 27323                                 |          |             |      |          |      |
| Prep Date: |         |        | Analysis Date: 7/7/2015 |             | SeqNo: 818889                                |          | Units: mg/L |      |          |      |
| Analyte    | Result  | PQL    | SPK value               | SPK Ref Val | %REC                                         | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Aluminum   | ND      | 0.020  | 0.01000                 | 0           | 133                                          | 50       | 150         |      |          |      |
| Barium     | 0.0024  | 0.0020 | 0.002000                | 0           | 118                                          | 50       | 150         |      |          |      |
| Boron      | ND      | 0.040  | 0.04000                 | 0           | 89.1                                         | 50       | 150         |      |          |      |
| Cadmium    | ND      | 0.0020 | 0.002000                | 0           | 89.0                                         | 50       | 150         |      |          |      |
| Chromium   | ND      | 0.0060 | 0.006000                | 0           | 75.2                                         | 50       | 150         |      |          |      |
| Cobalt     | 0.0065  | 0.0060 | 0.006000                | 0           | 108                                          | 50       | 150         |      |          |      |
| Copper     | 0.0066  | 0.0060 | 0.006000                | 0           | 110                                          | 50       | 150         |      |          |      |
| Iron       | 0.021   | 0.020  | 0.02000                 | 0           | 106                                          | 50       | 150         |      |          |      |
| Manganese  | 0.0020  | 0.0020 | 0.002000                | 0           | 103                                          | 50       | 150         |      |          |      |
| Molybdenum | 0.011   | 0.0080 | 0.008000                | 0           | 140                                          | 50       | 150         |      |          |      |
| Nickel     | ND      | 0.010  | 0.005000                | 0           | 104                                          | 50       | 150         |      |          |      |
| Silver     | ND      | 0.0050 | 0.005000                | 0           | 72.0                                         | 50       | 150         |      |          |      |
| Zinc       | ND      | 0.010  | 0.005000                | 0           | 88.8                                         | 50       | 150         |      |          |      |

### Qualifiers:

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R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

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ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |        |         |                          |             |                                       |          |             |      |          |      |
|------------|--------|---------|--------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |         | SampType: LCS            |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | LCSW   |         | Batch ID: R27474         |             | RunNo: 27474                          |          |             |      |          |      |
| Prep Date: |        |         | Analysis Date: 7/13/2015 |             | SeqNo: 824374                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL     | SPK value                | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | 0.012  | 0.00050 | 0.01250                  | 0           | 96.3                                  | 85       | 115         |      |          |      |
| Uranium    | 0.012  | 0.00050 | 0.01250                  | 0           | 95.6                                  | 85       | 115         |      |          |      |

|            |        |         |                          |             |                                       |          |             |      |          |      |
|------------|--------|---------|--------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |         | SampType: LCS            |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | LCSW   |         | Batch ID: R27474         |             | RunNo: 27474                          |          |             |      |          |      |
| Prep Date: |        |         | Analysis Date: 7/13/2015 |             | SeqNo: 824375                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL     | SPK value                | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | 0.012  | 0.00050 | 0.01250                  | 0           | 96.4                                  | 85       | 115         |      |          |      |
| Uranium    | 0.012  | 0.00050 | 0.01250                  | 0           | 96.3                                  | 85       | 115         |      |          |      |

|            |         |         |                          |             |                                       |          |             |      |          |      |
|------------|---------|---------|--------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCSLL   |         | SampType: LCSLL          |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | BatchQC |         | Batch ID: R27474         |             | RunNo: 27474                          |          |             |      |          |      |
| Prep Date: |         |         | Analysis Date: 7/13/2015 |             | SeqNo: 824376                         |          | Units: mg/L |      |          |      |
| Analyte    | Result  | PQL     | SPK value                | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | ND      | 0.00050 | 0.0005000                | 0           | 94.0                                  | 50       | 150         |      |          |      |
| Uranium    | ND      | 0.00050 | 0.0005000                | 0           | 92.9                                  | 50       | 150         |      |          |      |

|            |         |         |                          |             |                                       |          |             |      |          |      |
|------------|---------|---------|--------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCSLL   |         | SampType: LCSLL          |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | BatchQC |         | Batch ID: R27474         |             | RunNo: 27474                          |          |             |      |          |      |
| Prep Date: |         |         | Analysis Date: 7/13/2015 |             | SeqNo: 824377                         |          | Units: mg/L |      |          |      |
| Analyte    | Result  | PQL     | SPK value                | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | 0.00051 | 0.00050 | 0.0005000                | 0           | 102                                   | 50       | 150         |      |          |      |
| Uranium    | 0.00050 | 0.00050 | 0.0005000                | 0           | 101                                   | 50       | 150         |      |          |      |

|            |        |                          |           |             |                                       |          |             |      |          |      |
|------------|--------|--------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK           |           |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R27474         |           |             | RunNo: 27474                          |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 7/13/2015 |           |             | SeqNo: 824379                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                      | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | ND     | 0.00050                  |           |             |                                       |          |             |      |          |      |
| Uranium    | ND     | 0.00050                  |           |             |                                       |          |             |      |          |      |

|            |        |                          |           |             |                                       |          |             |      |          |      |
|------------|--------|--------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK           |           |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R27474         |           |             | RunNo: 27474                          |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 7/13/2015 |           |             | SeqNo: 824380                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | POL                      | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |

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ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |        |                |           |             |                             |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R27474    | RunNo:      | 27474                       |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 7/13/2015 | SeqNo:      | 824380                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Lead       | ND     | 0.00050        |           |             |                             |          |           |      |          |      |
| Uranium    | ND     | 0.00050        |           |             |                             |          |           |      |          |      |

|            |        |                |           |             |                             |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | R27505    | RunNo:      | 27505                       |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 7/14/2015 | SeqNo:      | 825388                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic    | 0.025  | 0.0010         | 0.02500   | 0           | 101                         | 85       | 115       |      |          |      |
| Selenium   | 0.025  | 0.0010         | 0.02500   | 0           | 100                         | 85       | 115       |      |          |      |

|            |        |                |           |             |                             |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | R27505    | RunNo:      | 27505                       |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 7/14/2015 | SeqNo:      | 825389                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic    | 0.025  | 0.0010         | 0.02500   | 0           | 100                         | 85       | 115       |      |          |      |
| Selenium   | 0.026  | 0.0010         | 0.02500   | 0           | 104                         | 85       | 115       |      |          |      |

|            |         |                |           |             |                             |          |           |      |          |      |
|------------|---------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | LLLCS   | SampType:      | LCSLL     | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | BatchQC | Batch ID:      | R27505    | RunNo:      | 27505                       |          |           |      |          |      |
| Prep Date: |         | Analysis Date: | 7/14/2015 | SeqNo:      | 825390                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic    | ND      | 0.0010         | 0.001000  | 0           | 94.0                        | 50       | 150       |      |          |      |
| Selenium   | ND      | 0.0010         | 0.001000  | 0           | 98.3                        | 50       | 150       |      |          |      |

|            |         |                |           |             |                             |          |           |      |          |      |
|------------|---------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | LLLCS   | SampType:      | LCSLL     | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | BatchQC | Batch ID:      | R27505    | RunNo:      | 27505                       |          |           |      |          |      |
| Prep Date: |         | Analysis Date: | 7/14/2015 | SeqNo:      | 825391                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic    | 0.0010  | 0.0010         | 0.001000  | 0           | 102                         | 50       | 150       |      |          |      |
| Selenium   | 0.0011  | 0.0010         | 0.001000  | 0           | 108                         | 50       | 150       |      |          |      |

|            |        |                |           |             |                             |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R27505    | RunNo:      | 27505                       |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 7/14/2015 | SeqNo:      | 825392                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

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- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |            |        |                                 |             |                                              |          |                    |      |          |      |
|------------|------------|--------|---------------------------------|-------------|----------------------------------------------|----------|--------------------|------|----------|------|
| Sample ID  | <b>MB</b>  |        | SampType: <b>MBLK</b>           |             | TestCode: <b>EPA 200.8: Dissolved Metals</b> |          |                    |      |          |      |
| Client ID: | <b>PBW</b> |        | Batch ID: <b>R27505</b>         |             | RunNo: <b>27505</b>                          |          |                    |      |          |      |
| Prep Date: |            |        | Analysis Date: <b>7/14/2015</b> |             | SeqNo: <b>825392</b>                         |          | Units: <b>mg/L</b> |      |          |      |
| Analyte    | Result     | PQL    | SPK value                       | SPK Ref Val | %REC                                         | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Arsenic    | ND         | 0.0010 |                                 |             |                                              |          |                    |      |          |      |
| Selenium   | ND         | 0.0010 |                                 |             |                                              |          |                    |      |          |      |

|            |            |        |                                 |             |                                              |          |                    |      |          |      |
|------------|------------|--------|---------------------------------|-------------|----------------------------------------------|----------|--------------------|------|----------|------|
| Sample ID  | <b>MB</b>  |        | SampType: <b>MBLK</b>           |             | TestCode: <b>EPA 200.8: Dissolved Metals</b> |          |                    |      |          |      |
| Client ID: | <b>PBW</b> |        | Batch ID: <b>R27505</b>         |             | RunNo: <b>27505</b>                          |          |                    |      |          |      |
| Prep Date: |            |        | Analysis Date: <b>7/14/2015</b> |             | SeqNo: <b>825393</b>                         |          | Units: <b>mg/L</b> |      |          |      |
| Analyte    | Result     | PQL    | SPK value                       | SPK Ref Val | %REC                                         | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Arsenic    | ND         | 0.0010 |                                 |             |                                              |          |                    |      |          |      |
| Selenium   | ND         | 0.0010 |                                 |             |                                              |          |                    |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

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|            |          |         |                         |             |                                     |          |             |      |          |      |
|------------|----------|---------|-------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-20160 |         | SampType: MBLK          |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | PBW      |         | Batch ID: 20160         |             | RunNo: 27365                        |          |             |      |          |      |
| Prep Date: | 7/8/2015 |         | Analysis Date: 7/8/2015 |             | SeqNo: 820623                       |          | Units: mg/L |      |          |      |
| Analyte    | Result   | PQL     | SPK value               | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercury    | ND       | 0.00020 |                         |             |                                     |          |             |      |          |      |

|            |           |         |                         |             |                                     |          |             |      |          |      |
|------------|-----------|---------|-------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-20160 |         | SampType: LCS           |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | LCSW      |         | Batch ID: 20160         |             | RunNo: 27365                        |          |             |      |          |      |
| Prep Date: | 7/8/2015  |         | Analysis Date: 7/8/2015 |             | SeqNo: 820626                       |          | Units: mg/L |      |          |      |
| Analyte    | Result    | PQL     | SPK value               | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercury    | 0.0049    | 0.00020 | 0.005000                | 0           | 98.8                                | 80       | 120         |      |          |      |

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# QC SUMMARY REPORT

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WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                      |        |                         |           |             |                                    |          |             |      |          |      |
|----------------------|--------|-------------------------|-----------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID            | MB     | SampType: MBLK          |           |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID:           | PBW    | Batch ID: R27319        |           |             | RunNo: 27319                       |          |             |      |          |      |
| Prep Date:           |        | Analysis Date: 7/6/2015 |           |             | SeqNo: 818775                      |          | Units: mg/L |      |          |      |
| Analyte              | Result | PQL                     | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Fluoride             | ND     | 0.10                    |           |             |                                    |          |             |      |          |      |
| Chloride             | ND     | 0.50                    |           |             |                                    |          |             |      |          |      |
| Nitrate+Nitrite as N | ND     | 0.20                    |           |             |                                    |          |             |      |          |      |

|                      |        |                         |           |             |                                    |          |             |      |          |      |
|----------------------|--------|-------------------------|-----------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID            | LCS    | SampType: LCS           |           |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID:           | LCSW   | Batch ID: R27319        |           |             | RunNo: 27319                       |          |             |      |          |      |
| Prep Date:           |        | Analysis Date: 7/6/2015 |           |             | SeqNo: 818776                      |          | Units: mg/L |      |          |      |
| Analyte              | Result | PQL                     | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Fluoride             | 0.51   | 0.10                    | 0.5000    | 0           | 102                                | 90       | 110         |      |          |      |
| Chloride             | 4.7    | 0.50                    | 5.000     | 0           | 93.6                               | 90       | 110         |      |          |      |
| Nitrate+Nitrite as N | 3.5    | 0.20                    | 3.500     | 0           | 99.2                               | 90       | 110         |      |          |      |

|            |        |                          |           |             |                                    |          |             |      |          |      |
|------------|--------|--------------------------|-----------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK           |           |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R27535         |           |             | RunNo: 27535                       |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 7/15/2015 |           |             | SeqNo: 826667                      |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                      | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Sulfate    | ND     | 0.50                     |           |             |                                    |          |             |      |          |      |

|            |        |      |                          |             |      |                                    |           |             |          |      |
|------------|--------|------|--------------------------|-------------|------|------------------------------------|-----------|-------------|----------|------|
| Sample ID  | LCS    |      | SampType: LCS            |             |      | TestCode: EPA Method 300.0: Anions |           |             |          |      |
| Client ID: | LCSW   |      | Batch ID: R27535         |             |      | RunNo: 27535                       |           |             |          |      |
| Prep Date: |        |      | Analysis Date: 7/15/2015 |             |      | SeqNo: 826668                      |           | Units: mg/L |          |      |
| Analyte    | Result | PQL  | SPK value                | SPK Ref Val | %REC | LowLimit                           | HighLimit | %RPD        | RPDLimit | Qual |
| Sulfate    | 10     | 0.50 | 10.00                    | 0           | 100  | 90                                 | 110       |             |          |      |

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S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                   |          |       |                         |             |                                      |          |             |      |          |      |
|-------------------|----------|-------|-------------------------|-------------|--------------------------------------|----------|-------------|------|----------|------|
| Sample ID         | MB-20171 |       | SampType: MBLK          |             | TestCode: EPA Method 8011/504.1: EDB |          |             |      |          |      |
| Client ID:        | PBW      |       | Batch ID: 20171         |             | RunNo: 27393                         |          |             |      |          |      |
| Prep Date:        | 7/9/2015 |       | Analysis Date: 7/9/2015 |             | SeqNo: 821853                        |          | Units: µg/L |      |          |      |
| Analyte           | Result   | PQL   | SPK value               | SPK Ref Val | %REC                                 | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | ND       | 0.010 |                         |             |                                      |          |             |      |          |      |

|                   |           |       |                         |             |                                      |          |             |      |          |      |
|-------------------|-----------|-------|-------------------------|-------------|--------------------------------------|----------|-------------|------|----------|------|
| Sample ID         | LCS-20171 |       | SampType: LCS           |             | TestCode: EPA Method 8011/504.1: EDB |          |             |      |          |      |
| Client ID:        | LCSW      |       | Batch ID: 20171         |             | RunNo: 27393                         |          |             |      |          |      |
| Prep Date:        | 7/9/2015  |       | Analysis Date: 7/9/2015 |             | SeqNo: 821854                        |          | Units: µg/L |      |          |      |
| Analyte           | Result    | PQL   | SPK value               | SPK Ref Val | %REC                                 | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | 0.11      | 0.010 | 0.1000                  | 0           | 107                                  | 70       | 130         |      |          |      |

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# QC SUMMARY REPORT

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WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

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|                                |          |                         |           |             |                                            |          |             |      |          |      |
|--------------------------------|----------|-------------------------|-----------|-------------|--------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                      | MB-20109 | SampType: MBLK          |           |             | TestCode: EPA Method 8015M/D: Diesel Range |          |             |      |          |      |
| Client ID:                     | PBW      | Batch ID: 20109         |           |             | RunNo: 27291                               |          |             |      |          |      |
| Prep Date:                     | 7/6/2015 | Analysis Date: 7/6/2015 |           |             | SeqNo: 818285                              |          | Units: mg/L |      |          |      |
| Analyte                        | Result   | PQL                     | SPK value | SPK Ref Val | %REC                                       | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND       | 1.0                     |           |             |                                            |          |             |      |          |      |
| Motor Oil Range Organics (MRO) | ND       | 5.0                     |           |             |                                            |          |             |      |          |      |
| Surr: DNOP                     | 0.88     |                         | 1.000     |             | 88.5                                       | 76.5     | 150         |      |          |      |

|                             |           |     |                         |             |                                            |          |             |      |          |      |
|-----------------------------|-----------|-----|-------------------------|-------------|--------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | LCS-20109 |     | SampType: LCS           |             | TestCode: EPA Method 8015M/D: Diesel Range |          |             |      |          |      |
| Client ID:                  | LCSW      |     | Batch ID: 20109         |             | RunNo: 27291                               |          |             |      |          |      |
| Prep Date:                  | 7/6/2015  |     | Analysis Date: 7/6/2015 |             | SeqNo: 818286                              |          | Units: mg/L |      |          |      |
| Analyte                     | Result    | PQL | SPK value               | SPK Ref Val | %REC                                       | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 4.1       | 1.0 | 5.000                   | 0           | 81.8                                       | 60.1     | 156         |      |          |      |
| Surr: DNOP                  | 0.49      |     | 0.5000                  |             | 97.8                                       | 76.5     | 150         |      |          |      |

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# QC SUMMARY REPORT

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WO#: 1507157

22-Jul-15

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|                               |        |       |                         |             |                                            |          |             |      |          |      |
|-------------------------------|--------|-------|-------------------------|-------------|--------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                     | 5ML RB |       | SampType: MBLK          |             | TestCode: EPA Method 8015D: Gasoline Range |          |             |      |          |      |
| Client ID:                    | PBW    |       | Batch ID: R27335        |             | RunNo: 27335                               |          |             |      |          |      |
| Prep Date:                    |        |       | Analysis Date: 7/7/2015 |             | SeqNo: 819311                              |          | Units: mg/L |      |          |      |
| Analyte                       | Result | PQL   | SPK value               | SPK Ref Val | %REC                                       | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND     | 0.050 |                         |             |                                            |          |             |      |          |      |
| Surr: BFB                     | 18     |       | 20.00                   |             | 89.3                                       | 57.8     | 137         |      |          |      |

|                               |               |       |                         |             |                                            |          |             |      |          |      |
|-------------------------------|---------------|-------|-------------------------|-------------|--------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                     | 2.5UG GRO LCS |       | SampType: LCS           |             | TestCode: EPA Method 8015D: Gasoline Range |          |             |      |          |      |
| Client ID:                    | LCSW          |       | Batch ID: R27335        |             | RunNo: 27335                               |          |             |      |          |      |
| Prep Date:                    |               |       | Analysis Date: 7/7/2015 |             | SeqNo: 819312                              |          | Units: mg/L |      |          |      |
| Analyte                       | Result        | PQL   | SPK value               | SPK Ref Val | %REC                                       | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 0.48          | 0.050 | 0.5000                  | 0           | 95.0                                       | 80       | 120         |      |          |      |
| Surr: BFB                     | 19            |       | 20.00                   |             | 94.6                                       | 57.8     | 137         |      |          |      |

|                               |                |       |                         |             |                                            |          |             |      |          |      |
|-------------------------------|----------------|-------|-------------------------|-------------|--------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                     | 1507157-001JMS |       | SampType: MS            |             | TestCode: EPA Method 8015D: Gasoline Range |          |             |      |          |      |
| Client ID:                    | R.O. Reject    |       | Batch ID: R27335        |             | RunNo: 27335                               |          |             |      |          |      |
| Prep Date:                    |                |       | Analysis Date: 7/7/2015 |             | SeqNo: 819318                              |          | Units: mg/L |      |          |      |
| Analyte                       | Result         | PQL   | SPK value               | SPK Ref Val | %REC                                       | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 0.51           | 0.050 | 0.5000                  | 0.04740     | 92.4                                       | 51       | 131         |      |          |      |
| Surr: BFB                     | 19             |       | 20.00                   |             | 92.6                                       | 57.8     | 137         |      |          |      |

|                               |                 |       |                         |             |                                            |          |             |      |          |      |
|-------------------------------|-----------------|-------|-------------------------|-------------|--------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                     | 1507157-001JMSD |       | SampType: MSD           |             | TestCode: EPA Method 8015D: Gasoline Range |          |             |      |          |      |
| Client ID:                    | R.O. Reject     |       | Batch ID: R27335        |             | RunNo: 27335                               |          |             |      |          |      |
| Prep Date:                    |                 |       | Analysis Date: 7/7/2015 |             | SeqNo: 819319                              |          | Units: mg/L |      |          |      |
| Analyte                       | Result          | PQL   | SPK value               | SPK Ref Val | %REC                                       | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 0.48            | 0.050 | 0.5000                  | 0.04740     | 85.8                                       | 51       | 131         | 6.70 | 20       |      |
| Surr: BFB                     | 18              |       | 20.00                   |             | 91.6                                       | 57.8     | 137         | 0    | 0        |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                            |                 |     |                                 |             |                                         |          |                    |      |          |      |
|----------------------------|-----------------|-----|---------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>MB-20149</b> |     | SampType: <b>MBLK</b>           |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>PBW</b>      |     | Batch ID: <b>20149</b>          |             | RunNo: <b>27467</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>7/8/2015</b> |     | Analysis Date: <b>7/14/2015</b> |             | SeqNo: <b>824114</b>                    |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                    | Result          | PQL | SPK value                       | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Aroclor 1016               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1221               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1232               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1242               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1248               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1254               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1260               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Surr: Decachlorobiphenyl   | 1.5             |     | 2.500                           |             | 60.8                                    | 44.5     | 110                |      |          |      |
| Surr: Tetrachloro-m-xylene | 1.6             |     | 2.500                           |             | 62.8                                    | 31.8     | 95.7               |      |          |      |

|                            |                  |     |                                 |             |                                         |          |                    |      |          |      |
|----------------------------|------------------|-----|---------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>LCS-20149</b> |     | SampType: <b>LCS</b>            |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>LCSW</b>      |     | Batch ID: <b>20149</b>          |             | RunNo: <b>27467</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>7/8/2015</b>  |     | Analysis Date: <b>7/14/2015</b> |             | SeqNo: <b>824697</b>                    |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                    | Result           | PQL | SPK value                       | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Aroclor 1016               | 3.6              | 1.0 | 5.000                           | 0           | 72.5                                    | 9.01     | 142                |      |          |      |
| Aroclor 1260               | 4.2              | 1.0 | 5.000                           | 0           | 84.4                                    | 25.6     | 164                |      |          |      |
| Surr: Decachlorobiphenyl   | 1.7              |     | 2.500                           |             | 68.8                                    | 44.5     | 110                |      |          |      |
| Surr: Tetrachloro-m-xylene | 1.9              |     | 2.500                           |             | 76.8                                    | 31.8     | 95.7               |      |          |      |

|                            |                       |     |                                 |             |                                         |          |                    |      |          |      |
|----------------------------|-----------------------|-----|---------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>1507157-001DMS</b> |     | SampType: <b>MS</b>             |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>R.O. Reject</b>    |     | Batch ID: <b>20149</b>          |             | RunNo: <b>27467</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>7/8/2015</b>       |     | Analysis Date: <b>7/14/2015</b> |             | SeqNo: <b>824698</b>                    |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                    | Result                | PQL | SPK value                       | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Aroclor 1016               | 3.1                   | 1.0 | 5.000                           | 0           | 62.2                                    | 14.5     | 105                |      |          |      |
| Aroclor 1260               | 3.7                   | 1.0 | 5.000                           | 0           | 74.5                                    | 21.4     | 125                |      |          |      |
| Surr: Decachlorobiphenyl   | 1.5                   |     | 2.500                           |             | 58.4                                    | 44.5     | 110                |      |          |      |
| Surr: Tetrachloro-m-xylene | 1.4                   |     | 2.500                           |             | 56.8                                    | 31.8     | 95.7               |      |          |      |

|                            |                        |     |                                 |             |                                         |          |                    |      |          |      |
|----------------------------|------------------------|-----|---------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>1507157-001DMSD</b> |     | SampType: <b>MSD</b>            |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>R.O. Reject</b>     |     | Batch ID: <b>20149</b>          |             | RunNo: <b>27467</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>7/8/2015</b>        |     | Analysis Date: <b>7/14/2015</b> |             | SeqNo: <b>824699</b>                    |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                    | Result                 | PQL | SPK value                       | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Aroclor 1016               | 3.2                    | 1.0 | 5.000                           | 0           | 64.0                                    | 14.5     | 105                | 2.85 | 20       |      |
| Aroclor 1260               | 3.8                    | 1.0 | 5.000                           | 0           | 76.2                                    | 21.4     | 125                | 2.23 | 27.6     |      |
| Surr: Decachlorobiphenyl   | 1.5                    |     | 2.500                           |             | 60.8                                    | 44.5     | 110                | 0    | 0        |      |
| Surr: Tetrachloro-m-xylene | 1.5                    |     | 2.500                           |             | 58.4                                    | 31.8     | 95.7               | 0    | 0        |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                                |        |                |           |             |                             |          |           |      |          |      |
|--------------------------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID                      | rb1    | SampType:      | MBLK      | TestCode:   | EPA Method 8260B: VOLATILES |          |           |      |          |      |
| Client ID:                     | PBW    | Batch ID:      | R27395    | RunNo:      | 27395                       |          |           |      |          |      |
| Prep Date:                     |        | Analysis Date: | 7/9/2015  | SeqNo:      | 821898                      | Units:   | µg/L      |      |          |      |
| Analyte                        | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                        | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Toluene                        | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Ethylbenzene                   | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2,4-Trimethylbenzene         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,3,5-Trimethylbenzene         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Naphthalene                    | ND     | 2.0            |           |             |                             |          |           |      |          |      |
| 1-Methylnaphthalene            | ND     | 4.0            |           |             |                             |          |           |      |          |      |
| 2-Methylnaphthalene            | ND     | 4.0            |           |             |                             |          |           |      |          |      |
| Acetone                        | ND     | 10             |           |             |                             |          |           |      |          |      |
| Bromobenzene                   | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Bromodichloromethane           | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Bromoform                      | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Bromomethane                   | ND     | 3.0            |           |             |                             |          |           |      |          |      |
| 2-Butanone                     | ND     | 10             |           |             |                             |          |           |      |          |      |
| Carbon disulfide               | ND     | 10             |           |             |                             |          |           |      |          |      |
| Carbon Tetrachloride           | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Chlorobenzene                  | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Chloroethane                   | ND     | 2.0            |           |             |                             |          |           |      |          |      |
| Chloroform                     | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Chloromethane                  | ND     | 3.0            |           |             |                             |          |           |      |          |      |
| 2-Chlorotoluene                | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 4-Chlorotoluene                | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| cis-1,2-DCE                    | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| cis-1,3-Dichloropropene        | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND     | 2.0            |           |             |                             |          |           |      |          |      |
| Dibromochloromethane           | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Dibromomethane                 | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2-Dichlorobenzene            | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,3-Dichlorobenzene            | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,4-Dichlorobenzene            | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Dichlorodifluoromethane        | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1-Dichloroethane             | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1-Dichloroethene             | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2-Dichloropropane            | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,3-Dichloropropane            | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 2,2-Dichloropropane            | ND     | 2.0            |           |             |                             |          |           |      |          |      |

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S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

| Sample ID <b>rb1</b>        | SampType: <b>MBLK</b>          |     |           | TestCode: <b>EPA Method 8260B: VOLATILES</b> |      |                    |           |      |          |      |
|-----------------------------|--------------------------------|-----|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Client ID: <b>PBW</b>       | Batch ID: <b>R27395</b>        |     |           | RunNo: <b>27395</b>                          |      |                    |           |      |          |      |
| Prep Date:                  | Analysis Date: <b>7/9/2015</b> |     |           | SeqNo: <b>821898</b>                         |      | Units: <b>µg/L</b> |           |      |          |      |
| Analyte                     | Result                         | PQL | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| 1,1-Dichloropropene         | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| Hexachlorobutadiene         | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| 2-Hexanone                  | ND                             | 10  |           |                                              |      |                    |           |      |          |      |
| Isopropylbenzene            | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| 4-Isopropyltoluene          | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| 4-Methyl-2-pentanone        | ND                             | 10  |           |                                              |      |                    |           |      |          |      |
| Methylene Chloride          | ND                             | 3.0 |           |                                              |      |                    |           |      |          |      |
| n-Butylbenzene              | ND                             | 3.0 |           |                                              |      |                    |           |      |          |      |
| n-Propylbenzene             | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| sec-Butylbenzene            | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| Styrene                     | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| tert-Butylbenzene           | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND                             | 2.0 |           |                                              |      |                    |           |      |          |      |
| Tetrachloroethene (PCE)     | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| trans-1,2-DCE               | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| trans-1,3-Dichloropropene   | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,2,3-Trichlorobenzene      | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,2,4-Trichlorobenzene      | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,1-Trichloroethane       | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,2-Trichloroethane       | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| Trichloroethene (TCE)       | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| Trichlorofluoromethane      | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,2,3-Trichloropropane      | ND                             | 2.0 |           |                                              |      |                    |           |      |          |      |
| Vinyl chloride              | ND                             | 1.0 |           |                                              |      |                    |           |      |          |      |
| Xylenes, Total              | ND                             | 1.5 |           |                                              |      |                    |           |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.8                            |     | 10.00     |                                              | 97.8 | 70                 | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 11                             |     | 10.00     |                                              | 108  | 70                 | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 9.5                            |     | 10.00     |                                              | 95.5 | 70                 | 130       |      |          |      |
| Surr: Toluene-d8            | 10                             |     | 10.00     |                                              | 105  | 70                 | 130       |      |          |      |

| Sample ID <b>100ng lcs</b> | SampType: <b>LCS</b>           |     |           | TestCode: <b>EPA Method 8260B: VOLATILES</b> |      |                    |           |      |          |      |
|----------------------------|--------------------------------|-----|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Client ID: <b>LCSW</b>     | Batch ID: <b>R27395</b>        |     |           | RunNo: <b>27395</b>                          |      |                    |           |      |          |      |
| Prep Date:                 | Analysis Date: <b>7/9/2015</b> |     |           | SeqNo: <b>821903</b>                         |      | Units: <b>µg/L</b> |           |      |          |      |
| Analyte                    | Result                         | PQL | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                    | 20                             | 1.0 | 20.00     | 0                                            | 100  | 70                 | 130       |      |          |      |
| Toluene                    | 21                             | 1.0 | 20.00     | 0                                            | 106  | 70                 | 130       |      |          |      |
| Chlorobenzene              | 20                             | 1.0 | 20.00     | 0                                            | 102  | 70                 | 130       |      |          |      |

### Qualifiers:

|                                                   |                                                      |
|---------------------------------------------------|------------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |                                                      |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                             |                         |     |                  |               |      |                                       |           |      |          |      |
|-----------------------------|-------------------------|-----|------------------|---------------|------|---------------------------------------|-----------|------|----------|------|
| Sample ID                   | 100ng lcs               |     | SampType: LCS    |               |      | TestCode: EPA Method 8260B: VOLATILES |           |      |          |      |
| Client ID:                  | LCSW                    |     | Batch ID: R27395 |               |      | RunNo: 27395                          |           |      |          |      |
| Prep Date:                  | Analysis Date: 7/9/2015 |     |                  | SeqNo: 821903 |      | Units: µg/L                           |           |      |          |      |
| Analyte                     | Result                  | PQL | SPK value        | SPK Ref Val   | %REC | LowLimit                              | HighLimit | %RPD | RPDLimit | Qual |
| 1,1-Dichloroethene          | 23                      | 1.0 | 20.00            | 0             | 115  | 70                                    | 130       |      |          |      |
| Trichloroethene (TCE)       | 18                      | 1.0 | 20.00            | 0             | 89.2 | 70                                    | 130       |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.7                     |     | 10.00            |               | 97.4 | 70                                    | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 11                      |     | 10.00            |               | 108  | 70                                    | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 9.3                     |     | 10.00            |               | 93.4 | 70                                    | 130       |      |          |      |
| Surr: Toluene-d8            | 10                      |     | 10.00            |               | 104  | 70                                    | 130       |      |          |      |

|                                |        |                         |           |             |                                       |          |             |      |          |      |
|--------------------------------|--------|-------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                      | rb7    | SampType: MBLK          |           |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                     | PBW    | Batch ID: R27395        |           |             | RunNo: 27395                          |          |             |      |          |      |
| Prep Date:                     |        | Analysis Date: 7/9/2015 |           |             | SeqNo: 821963                         |          | Units: µg/L |      |          |      |
| Analyte                        | Result | PQL                     | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Benzene                        | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Toluene                        | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Ethylbenzene                   | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| 1,2,4-Trimethylbenzene         | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| 1,3,5-Trimethylbenzene         | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Naphthalene                    | ND     | 2.0                     |           |             |                                       |          |             |      |          |      |
| 1-Methylnaphthalene            | ND     | 4.0                     |           |             |                                       |          |             |      |          |      |
| 2-Methylnaphthalene            | ND     | 4.0                     |           |             |                                       |          |             |      |          |      |
| Acetone                        | ND     | 10                      |           |             |                                       |          |             |      |          |      |
| Bromobenzene                   | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Bromodichloromethane           | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Bromoform                      | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Bromomethane                   | ND     | 3.0                     |           |             |                                       |          |             |      |          |      |
| 2-Butanone                     | ND     | 10                      |           |             |                                       |          |             |      |          |      |
| Carbon disulfide               | ND     | 10                      |           |             |                                       |          |             |      |          |      |
| Carbon Tetrachloride           | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Chlorobenzene                  | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Chloroethane                   | ND     | 2.0                     |           |             |                                       |          |             |      |          |      |
| Chloroform                     | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Chloromethane                  | ND     | 3.0                     |           |             |                                       |          |             |      |          |      |
| 2-Chlorotoluene                | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| 4-Chlorotoluene                | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| cis-1,2-DCE                    | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| cis-1,3-Dichloropropene        | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                             |        |                |           |             |                             |          |           |      |          |      |
|-----------------------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID                   | rb7    | SampType:      | MBLK      | TestCode:   | EPA Method 8260B: VOLATILES |          |           |      |          |      |
| Client ID:                  | PBW    | Batch ID:      | R27395    | RunNo:      | 27395                       |          |           |      |          |      |
| Prep Date:                  |        | Analysis Date: | 7/9/2015  | SeqNo:      | 821963                      | Units:   | µg/L      |      |          |      |
| Analyte                     | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| 1,2-Dibromo-3-chloropropane | ND     | 2.0            |           |             |                             |          |           |      |          |      |
| Dibromochloromethane        | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Dibromomethane              | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2-Dichlorobenzene         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,3-Dichlorobenzene         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,4-Dichlorobenzene         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Dichlorodifluoromethane     | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1-Dichloroethane          | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1-Dichloroethene          | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2-Dichloropropane         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,3-Dichloropropane         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 2,2-Dichloropropane         | ND     | 2.0            |           |             |                             |          |           |      |          |      |
| 1,1-Dichloropropene         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Hexachlorobutadiene         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 2-Hexanone                  | ND     | 10             |           |             |                             |          |           |      |          |      |
| Isopropylbenzene            | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 4-Isopropyltoluene          | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 4-Methyl-2-pentanone        | ND     | 10             |           |             |                             |          |           |      |          |      |
| Methylene Chloride          | ND     | 3.0            |           |             |                             |          |           |      |          |      |
| n-Butylbenzene              | ND     | 3.0            |           |             |                             |          |           |      |          |      |
| n-Propylbenzene             | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| sec-Butylbenzene            | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Styrene                     | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| tert-Butylbenzene           | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND     | 2.0            |           |             |                             |          |           |      |          |      |
| Tetrachloroethene (PCE)     | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| trans-1,2-DCE               | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| trans-1,3-Dichloropropene   | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2,3-Trichlorobenzene      | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2,4-Trichlorobenzene      | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1,1-Trichloroethane       | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1,2-Trichloroethane       | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Trichloroethene (TCE)       | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Trichlorofluoromethane      | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2,3-Trichloropropane      | ND     | 2.0            |           |             |                             |          |           |      |          |      |
| Vinyl chloride              | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Xylenes, Total              | ND     | 1.5            |           |             |                             |          |           |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.9    |                | 10.00     |             | 98.9                        | 70       | 130       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                            |            |     |                                |             |      |                                              |           |                    |          |      |
|----------------------------|------------|-----|--------------------------------|-------------|------|----------------------------------------------|-----------|--------------------|----------|------|
| Sample ID                  | <b>rb7</b> |     | SampType: <b>MBLK</b>          |             |      | TestCode: <b>EPA Method 8260B: VOLATILES</b> |           |                    |          |      |
| Client ID:                 | <b>PBW</b> |     | Batch ID: <b>R27395</b>        |             |      | RunNo: <b>27395</b>                          |           |                    |          |      |
| Prep Date:                 |            |     | Analysis Date: <b>7/9/2015</b> |             |      | SeqNo: <b>821963</b>                         |           | Units: <b>µg/L</b> |          |      |
| Analyte                    | Result     | PQL | SPK value                      | SPK Ref Val | %REC | LowLimit                                     | HighLimit | %RPD               | RPDLimit | Qual |
| Surr: 4-Bromofluorobenzene | 11         |     | 10.00                          |             | 109  | 70                                           | 130       |                    |          |      |
| Surr: Dibromofluoromethane | 9.7        |     | 10.00                          |             | 96.6 | 70                                           | 130       |                    |          |      |
| Surr: Toluene-d8           | 11         |     | 10.00                          |             | 106  | 70                                           | 130       |                    |          |      |

|                             |                   |     |                                |             |      |                                              |           |                    |          |      |
|-----------------------------|-------------------|-----|--------------------------------|-------------|------|----------------------------------------------|-----------|--------------------|----------|------|
| Sample ID                   | <b>100ng lcs2</b> |     | SampType: <b>LCS</b>           |             |      | TestCode: <b>EPA Method 8260B: VOLATILES</b> |           |                    |          |      |
| Client ID:                  | <b>LCSW</b>       |     | Batch ID: <b>R27395</b>        |             |      | RunNo: <b>27395</b>                          |           |                    |          |      |
| Prep Date:                  |                   |     | Analysis Date: <b>7/9/2015</b> |             |      | SeqNo: <b>821965</b>                         |           | Units: <b>µg/L</b> |          |      |
| Analyte                     | Result            | PQL | SPK value                      | SPK Ref Val | %REC | LowLimit                                     | HighLimit | %RPD               | RPDLimit | Qual |
| Benzene                     | 20                | 1.0 | 20.00                          | 0           | 101  | 70                                           | 130       |                    |          |      |
| Toluene                     | 22                | 1.0 | 20.00                          | 0           | 108  | 70                                           | 130       |                    |          |      |
| Chlorobenzene               | 20                | 1.0 | 20.00                          | 0           | 102  | 70                                           | 130       |                    |          |      |
| 1,1-Dichloroethene          | 23                | 1.0 | 20.00                          | 0           | 117  | 70                                           | 130       |                    |          |      |
| Trichloroethene (TCE)       | 19                | 1.0 | 20.00                          | 0           | 95.5 | 70                                           | 130       |                    |          |      |
| Surr: 1,2-Dichloroethane-d4 | 10                |     | 10.00                          |             | 100  | 70                                           | 130       |                    |          |      |
| Surr: 4-Bromofluorobenzene  | 11                |     | 10.00                          |             | 110  | 70                                           | 130       |                    |          |      |
| Surr: Dibromofluoromethane  | 9.9               |     | 10.00                          |             | 99.0 | 70                                           | 130       |                    |          |      |
| Surr: Toluene-d8            | 10                |     | 10.00                          |             | 103  | 70                                           | 130       |                    |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                      |          |                         |           |             |                                 |          |             |      |          |      |
|----------------------|----------|-------------------------|-----------|-------------|---------------------------------|----------|-------------|------|----------|------|
| Sample ID            | MB-20150 | SampType: MBLK          |           |             | TestCode: EPA Method 8310: PAHs |          |             |      |          |      |
| Client ID:           | PBW      | Batch ID: 20150         |           |             | RunNo: 27333                    |          |             |      |          |      |
| Prep Date:           | 7/8/2015 | Analysis Date: 7/8/2015 |           |             | SeqNo: 820082                   |          | Units: µg/L |      |          |      |
| Analyte              | Result   | PQL                     | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Naphthalene          | ND       | 2.0                     |           |             |                                 |          |             |      |          |      |
| 1-Methylnaphthalene  | ND       | 2.0                     |           |             |                                 |          |             |      |          |      |
| 2-Methylnaphthalene  | ND       | 2.0                     |           |             |                                 |          |             |      |          |      |
| Benzo(a)pyrene       | ND       | 0.070                   |           |             |                                 |          |             |      |          |      |
| Surr: Benzo(e)pyrene | 17       |                         | 20.00     |             | 82.6                            | 37.2     | 136         |      |          |      |

|                      |           |       |                         |             |                                 |          |             |      |          |      |
|----------------------|-----------|-------|-------------------------|-------------|---------------------------------|----------|-------------|------|----------|------|
| Sample ID            | LCS-20150 |       | SampType: LCS           |             | TestCode: EPA Method 8310: PAHs |          |             |      |          |      |
| Client ID:           | LCSW      |       | Batch ID: 20150         |             | RunNo: 27333                    |          |             |      |          |      |
| Prep Date:           | 7/8/2015  |       | Analysis Date: 7/8/2015 |             | SeqNo: 820084                   |          | Units: µg/L |      |          |      |
| Analyte              | Result    | PQL   | SPK value               | SPK Ref Val | %REC                            | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Naphthalene          | 71        | 2.0   | 80.00                   | 0           | 89.3                            | 57.8     | 83.9        |      |          | S    |
| 1-Methylnaphthalene  | 75        | 2.0   | 80.20                   | 0           | 93.1                            | 43.5     | 88.5        |      |          | S    |
| 2-Methylnaphthalene  | 72        | 2.0   | 80.00                   | 0           | 90.5                            | 34.2     | 94.5        |      |          |      |
| Benzo(a)pyrene       | 0.45      | 0.070 | 0.5020                  | 0           | 89.6                            | 56.3     | 98.6        |      |          |      |
| Surr: Benzo(e)pyrene | 14        |       | 20.00                   |             | 70.7                            | 37.2     | 136         |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                              |          |     |                         |             |                                          |          |             |      |          |      |
|------------------------------|----------|-----|-------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                    | MB-20119 |     | SampType: MBLK          |             | TestCode: Total Phenolics by SW-846 9067 |          |             |      |          |      |
| Client ID:                   | PBW      |     | Batch ID: 20119         |             | RunNo: 27307                             |          |             |      |          |      |
| Prep Date:                   | 7/7/2015 |     | Analysis Date: 7/7/2015 |             | SeqNo: 818519                            |          | Units: µg/L |      |          |      |
| Analyte                      | Result   | PQL | SPK value               | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | ND       | 2.5 |                         |             |                                          |          |             |      |          |      |

|                              |           |     |                         |             |                                          |          |             |      |          |      |
|------------------------------|-----------|-----|-------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                    | LCS-20119 |     | SampType: LCS           |             | TestCode: Total Phenolics by SW-846 9067 |          |             |      |          |      |
| Client ID:                   | LCSW      |     | Batch ID: 20119         |             | RunNo: 27307                             |          |             |      |          |      |
| Prep Date:                   | 7/7/2015  |     | Analysis Date: 7/7/2015 |             | SeqNo: 818520                            |          | Units: µg/L |      |          |      |
| Analyte                      | Result    | PQL | SPK value               | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | 18        | 2.5 | 20.00                   | 0           | 92.4                                     | 64.4     | 135         |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |           |        |                          |             |                                           |          |             |      |          |      |
|------------|-----------|--------|--------------------------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-R27657 |        | SampType: MBLK           |             | TestCode: EPA 335.4: Total Cyanide Subbed |          |             |      |          |      |
| Client ID: | PBW       |        | Batch ID: R27657         |             | RunNo: 27657                              |          |             |      |          |      |
| Prep Date: |           |        | Analysis Date: 7/13/2015 |             | SeqNo: 830507                             |          | Units: mg/L |      |          |      |
| Analyte    | Result    | PQL    | SPK value                | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cyanide    | ND        | 0.0100 |                          |             |                                           |          |             |      |          |      |

|            |            |     |                          |             |                                           |          |             |      |          |      |
|------------|------------|-----|--------------------------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-R27657 |     | SampType: LCS            |             | TestCode: EPA 335.4: Total Cyanide Subbed |          |             |      |          |      |
| Client ID: | LCSW       |     | Batch ID: R27657         |             | RunNo: 27657                              |          |             |      |          |      |
| Prep Date: |            |     | Analysis Date: 7/13/2015 |             | SeqNo: 830508                             |          | Units: mg/L |      |          |      |
| Analyte    | Result     | PQL | SPK value                | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cyanide    | 0.512      |     | 0.5000                   | 0           | 102                                       | 90       | 110         |      |          |      |

### Qualifiers:

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S Spike Recovery outside accepted recovery limits

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ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|              |           |       |                          |             |                                                          |          |              |      |          |      |
|--------------|-----------|-------|--------------------------|-------------|----------------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID    | MB-R27657 |       | SampType: MBLK           |             | TestCode: EPA 903.1: Ra 226 and EPA 904.0: Ra 228-Subbed |          |              |      |          |      |
| Client ID:   | PBW       |       | Batch ID: R27657         |             | RunNo: 27657                                             |          |              |      |          |      |
| Prep Date:   |           |       | Analysis Date: 7/16/2015 |             | SeqNo: 830510                                            |          | Units: pCi/L |      |          |      |
| Analyte      | Result    | PQL   | SPK value                | SPK Ref Val | %REC                                                     | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Radium-226   | 0.294     | 0.541 |                          |             |                                                          |          |              |      |          |      |
| Radium-226 ± | 0.354     | 0.541 |                          |             |                                                          |          |              |      |          |      |
| Radium-228   | 0.097     | 0.682 |                          |             |                                                          |          |              |      |          |      |
| Radium-228 ± | 0.303     | 0.682 |                          |             |                                                          |          |              |      |          |      |

### Qualifiers:

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507157

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                        |          |      |                         |             |                                               |          |             |      |          |      |
|------------------------|----------|------|-------------------------|-------------|-----------------------------------------------|----------|-------------|------|----------|------|
| Sample ID              | MB-20140 |      | SampType: MBLK          |             | TestCode: SM2540C MOD: Total Dissolved Solids |          |             |      |          |      |
| Client ID:             | PBW      |      | Batch ID: 20140         |             | RunNo: 27385                                  |          |             |      |          |      |
| Prep Date:             | 7/7/2015 |      | Analysis Date: 7/9/2015 |             | SeqNo: 821530                                 |          | Units: mg/L |      |          |      |
| Analyte                | Result   | PQL  | SPK value               | SPK Ref Val | %REC                                          | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Total Dissolved Solids | ND       | 20.0 |                         |             |                                               |          |             |      |          |      |

|                        |           |      |                         |             |                                               |          |             |      |          |      |
|------------------------|-----------|------|-------------------------|-------------|-----------------------------------------------|----------|-------------|------|----------|------|
| Sample ID              | LCS-20140 |      | SampType: LCS           |             | TestCode: SM2540C MOD: Total Dissolved Solids |          |             |      |          |      |
| Client ID:             | LCSW      |      | Batch ID: 20140         |             | RunNo: 27385                                  |          |             |      |          |      |
| Prep Date:             | 7/7/2015  |      | Analysis Date: 7/9/2015 |             | SeqNo: 821531                                 |          | Units: mg/L |      |          |      |
| Analyte                | Result    | PQL  | SPK value               | SPK Ref Val | %REC                                          | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Total Dissolved Solids | 1020      | 20.0 | 1000                    | 0           | 102                                           | 80       | 120         |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# Sample Log-In Check List

Client Name: NAVAJO REFINING CO

Work Order Number: 1507157

RepNo: 1

Received by/date:

Logged By: Lindsay Mangin

7/3/2015 9:45:00 AM

Completed By: Lindsay Mangin

7/8/2015 8:30:01 AM

Reviewed By:

## Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

## Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of &gt;0° C to 6.0°C

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☒

No ☐

No VOA Vials ☐

11. Were any sample containers received broken?

Yes ☐

No ☒

# of preserved  
bottles checked  
for pH: 6 or 12 (unless noted)

12. Does paperwork match bottle labels?

(Nota discrepancies on chain of custody)

Yes ☒

No ☐

Adjusted?

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

(If no, notify customer for authorization.)

Yes ☒

No ☐

Checked by:

## Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date:

By Whom:

Via:

☐

eMail

☐

Phone

☐

Fax

☐

In Person

Regarding:

Client Instructions:

17. Additional remarks:

## 18. Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 2.1     | Good      | Yes         |         |           |           |

# Chain-of-Custody Record

Client: Navajo Refinery

Mailing Address: P.O. Box 159 Artesia,

NM 88211-0159

Phone #: 575-748-3311

email or Fax#: 575-746-5451

QAC Package:

X Standard ☐ Level 4 (Full Validation)

☐ Other

☐ EDD (Type) \_\_\_\_\_

Turn-Around Time:

X Standard ☐ Rush

Project Name:

Monthly R.O. Reject

Project #: P.O. # 167796

Project Manager:

Robert Combs

Sampler: Elizabeth Salisbury

On Ice: ☒ Yes ☐ No

Sample Temperature ~~25-30~~ 2.1

Date Time Matrix Sample Request ID

7-1-15 2:50pm liquid B.O. Reject

7-1-15 2:50pm liquid 1/6

7-1-15 2:50pm liquid 1/6

7-1-15 2:50pm liquid 1/6

7-1-15 2:50pm liquid 1/6

7-1-15 2:50pm liquid 1/6

7-1-15 2:50pm liquid 1/6

7-1-15 2:50pm liquid 1/6

7-1-15 2:50pm liquid 1/6

7-1-15 2:50pm liquid 1/6

7-1-15 2:50pm liquid 1/6

7-1-15 2:50pm liquid 1/6

7-1-15 2:50pm liquid 1/6

7-1-15 2:50pm liquid 1/6

7-1-15 2:50pm liquid 1/6

7-1-15 2:50pm liquid 1/6

7-1-15 2:50pm liquid 1/6



**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

|                       |   |                        |   |                    |   |                      |   |               |   |                     |   |            |   |                               |   |         |   |          |   |          |   |                 |   |                        |   |
|-----------------------|---|------------------------|---|--------------------|---|----------------------|---|---------------|---|---------------------|---|------------|---|-------------------------------|---|---------|---|----------|---|----------|---|-----------------|---|------------------------|---|
| 8260B: WACC List VOCs | X | 8270C: WACC list SVOCs | X | 6010B: WACC Metals | X | 335.4: Total Cyanide | X | 7470: Mercury | X | 8015: GFO, DRO, ORO | X | 8082: PCBs | X | Radioactivity (Ra-226+Ra-228) | X | Sulfate | X | Chloride | X | Fluoride | X | Nitrate/Nitrite | X | Total Dissolved Solids | X |
|-----------------------|---|------------------------|---|--------------------|---|----------------------|---|---------------|---|---------------------|---|------------|---|-------------------------------|---|---------|---|----------|---|----------|---|-----------------|---|------------------------|---|

Remarks:

Metals: As, Al, Ba, B, Cd, Cr, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, U, Zn  
VOCs: 1,1,1-Trichloroethane; 1,1,2,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethylene; 1,1,2-Trichloroethane; 1,2-Trichloroethylene; 1,1-Dichloroethane; 1,1-Dichloroethane; 1,2-Dibromomethane; 1,2-Dichloroethane; Benzene; Carbon Tetrachloride; Chloroform; Dichloromethane; Ethylbenzene; Toluene; Total Xylenes; Vinyl Chloride  
SVOCs: benzo(a)pyrene, phenol, 1-methylnaphthalene, 2-methylnaphthalene, naphthalene

Date Time

07/13/15 09:15

Received by:

Elizabeth Salisbury

Date Time

7-2-15 11am

Received by:

Elizabeth Salisbury

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Navajo Refining Company, LLC  
501 E. Main  
Artesia, NM 88210  
(Tel) 575 748 3311  
(Fax) 575 746 5451

## Biannual RO Reject Sample Details Attachment



HOLLYFRONTIER  
The HollyFrontier Companies

|                       |                         |
|-----------------------|-------------------------|
| Project Name          | Biannual RO Reject      |
| Sampler Name          | Elizabeth Salsterny     |
| Sampler's Affiliation | Navajo Refining Co. LLC |
| Start Date and Time   | 7/1/2015 @ 2:43 pm      |
| End Date and Time     | 7/1/2015 @ 2:54 pm      |

| Sample Type             |                          |
|-------------------------|--------------------------|
| Grab                    | <input type="checkbox"/> |
| Time Weighted Composite | <input type="checkbox"/> |
| Flow Weighted Composite | <input type="checkbox"/> |

|                               |
|-------------------------------|
| Parts / Sample Intervals: One |
|-------------------------------|

| Physical Property |                                     |
|-------------------|-------------------------------------|
| Solid             | <input type="checkbox"/>            |
| Liquid            | <input checked="" type="checkbox"/> |
| Sludge            | <input type="checkbox"/>            |

|                 |                         |
|-----------------|-------------------------|
| Type of Sampler | Directly to sample jars |
|-----------------|-------------------------|

|                            |                                                                                                                                  |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Outfall / Sample Location: | <input type="checkbox"/> North Field R.O. Reject Discharge <input checked="" type="checkbox"/> South Field R.O. Reject Discharge |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------|

| Container | Size  | Material | # of Containers | Neat (None) | Preservatives |                  |                                |      |                                               |                    | Other | Analysis and/or Method Requested<br>pH, Cl, F, SO <sub>4</sub> , NO <sub>2</sub> /NO <sub>3</sub> , TDS<br>8015 GRO<br>8020 Total metals, 7470 Hg<br>8020 Dissolved Metals<br>Cyanide<br>Radium 226/228<br>8260 see attached list<br>8270 see attached list<br>8062 PCBs<br>8015 DRO<br>Radium 226/228 |
|-----------|-------|----------|-----------------|-------------|---------------|------------------|--------------------------------|------|-----------------------------------------------|--------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |       |          |                 |             | HCl           | HNO <sub>3</sub> | H <sub>2</sub> SO <sub>4</sub> | NaOH | Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> | NaHSO <sub>4</sub> |       |                                                                                                                                                                                                                                                                                                        |
| 1         | 500ml | Plastic  | 2               | X           |               |                  | X                              |      |                                               |                    |       |                                                                                                                                                                                                                                                                                                        |
| 2         | 40ml  | VOA      | 3               |             | X             |                  |                                |      |                                               |                    |       |                                                                                                                                                                                                                                                                                                        |
| 3         | 500ml | Plastic  | 1               |             |               | X                |                                |      |                                               |                    |       |                                                                                                                                                                                                                                                                                                        |
| 4         | 125ml | Plastic  | 1               |             |               | X                |                                |      |                                               |                    |       |                                                                                                                                                                                                                                                                                                        |
| 5         | 500ml | Plastic  | 2               |             |               |                  |                                | X    |                                               |                    |       |                                                                                                                                                                                                                                                                                                        |
| 6         | 1L    | Plastic  | 3               |             |               | X                |                                |      |                                               |                    |       |                                                                                                                                                                                                                                                                                                        |
| 7         | 40ml  | VOA      | 2               |             | X             |                  |                                |      |                                               |                    |       |                                                                                                                                                                                                                                                                                                        |
| 8         | 1L    | Glass    | 1               | X           |               |                  |                                |      |                                               |                    |       |                                                                                                                                                                                                                                                                                                        |
| 9         | 1L    | Glass    | 2               | X           |               |                  |                                |      |                                               |                    |       |                                                                                                                                                                                                                                                                                                        |
| 10        | 40ml  | VOA      | 2               | X           |               |                  |                                |      |                                               |                    |       |                                                                                                                                                                                                                                                                                                        |
| 11        | 40ml  | VOA      | 2               | X           | X             |                  |                                |      |                                               |                    |       |                                                                                                                                                                                                                                                                                                        |

|                                          |                                                                                                |
|------------------------------------------|------------------------------------------------------------------------------------------------|
| Field Data (Weather, Observations, Etc): | 7/1/2014 2:43 pm Temp. 91.4 °F Humidity 29% Wind Dir East Wind Speed 10.4 mph Conditions Clear |
| Date and Time:                           |                                                                                                |

Field Temp: 25.9 °C Field pH: 7.83

|                |                                         |
|----------------|-----------------------------------------|
| Storage Method | Ice <input checked="" type="checkbox"/> |
| Refrigerated   | <input type="checkbox"/>                |
| Other          | <input type="checkbox"/>                |

|                |                                         |
|----------------|-----------------------------------------|
| Shipping Media | Ice <input checked="" type="checkbox"/> |
| Other          | <input type="checkbox"/>                |



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

July 22, 2015

Robert Combs  
Navajo Refining Company  
P.O. Box 159  
Artesia, NM 88211-0159  
TEL: (575) 748-3311  
FAX

RE: Monthly RO Reject

OrderNo.: 1507158

Dear Robert Combs:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/3/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1507158

Date Reported: 7/22/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** Temporary R.O.

**Project:** Monthly RO Reject

**Collection Date:** 7/1/2015 3:02:00 PM

**Lab ID:** 1507158-001

**Matrix:** AQUEOUS

**Received Date:** 7/3/2015 9:45:00 AM

| Analyses                                              | Result | RL      | Qual | Units    | DF  | Date Analyzed        | Batch               |
|-------------------------------------------------------|--------|---------|------|----------|-----|----------------------|---------------------|
| <b>EPA 200.8: DISSOLVED METALS</b>                    |        |         |      |          |     |                      | Analyst: <b>DBD</b> |
| Arsenic                                               | ND     | 0.0050  |      | mg/L     | 5   | 7/14/2015 1:51:42 PM | R27505              |
| Lead                                                  | ND     | 0.00050 |      | mg/L     | 1   | 7/14/2015 1:14:57 PM | R27505              |
| Selenium                                              | 0.0082 | 0.0010  |      | mg/L     | 1   | 7/14/2015 1:14:57 PM | R27505              |
| Uranium                                               | 0.0055 | 0.00050 |      | mg/L     | 1   | 7/14/2015 1:14:57 PM | R27505              |
| <b>EPA 903.1: RA 226 AND EPA 904.0: RA 228-SUBBED</b> |        |         |      |          |     |                      | Analyst: <b>SUB</b> |
| Radium-226                                            | 1.05   | 0.202   |      | pCi/L    | 1   | 7/16/2015            | R27658              |
| Radium-226 ±                                          | 0.561  | 0.202   |      | pCi/L    | 1   | 7/16/2015            | R27658              |
| Radium-228                                            | 0.158  | 0.824   |      | pCi/L    | 1   | 7/16/2015            | R27658              |
| Radium-228 ±                                          | 0.38   | 0.824   |      | pCi/L    | 1   | 7/16/2015            | R27658              |
| <b>EPA METHOD 300.0: ANIONS</b>                       |        |         |      |          |     |                      | Analyst: <b>LGT</b> |
| Fluoride                                              | 3.4    | 2.0     |      | mg/L     | 20  | 7/6/2015 10:42:35 PM | R27319              |
| Chloride                                              | 130    | 10      |      | mg/L     | 20  | 7/6/2015 10:42:35 PM | R27319              |
| Sulfate                                               | 1500   | 50      |      | mg/L     | 100 | 7/15/2015 4:21:52 PM | R27535              |
| Nitrate+Nitrite as N                                  | 1.8    | 1.0     |      | mg/L     | 5   | 7/6/2015 11:44:37 PM | R27319              |
| <b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>            |        |         |      |          |     |                      | Analyst: <b>KS</b>  |
| Total Dissolved Solids                                | 3100   | 20.0    | *    | mg/L     | 1   | 7/9/2015 2:45:00 PM  | 20140               |
| <b>EPA 335.4: TOTAL CYANIDE SUBBED</b>                |        |         |      |          |     |                      | Analyst: <b>SUB</b> |
| Cyanide                                               | ND     | 0.0100  |      | mg/L     | 1   | 7/13/2015            | R27658              |
| <b>SM4500-H+B: PH</b>                                 |        |         |      |          |     |                      | Analyst: <b>JRR</b> |
| pH                                                    | 8.06   | 1.68    | H    | pH units | 1   | 7/9/2015 10:09:14 PM | R27410              |
| <b>EPA METHOD 200.7: DISSOLVED METALS</b>             |        |         |      |          |     |                      | Analyst: <b>ELS</b> |
| Aluminum                                              | ND     | 0.020   |      | mg/L     | 1   | 7/7/2015 3:26:45 PM  | R27323              |
| Barium                                                | 0.063  | 0.0020  |      | mg/L     | 1   | 7/7/2015 3:26:45 PM  | R27323              |
| Boron                                                 | 0.076  | 0.040   |      | mg/L     | 1   | 7/7/2015 3:26:45 PM  | R27323              |
| Cadmium                                               | ND     | 0.0020  |      | mg/L     | 1   | 7/7/2015 3:26:45 PM  | R27323              |
| Chromium                                              | ND     | 0.0060  |      | mg/L     | 1   | 7/7/2015 3:26:45 PM  | R27323              |
| Cobalt                                                | ND     | 0.0060  |      | mg/L     | 1   | 7/7/2015 3:26:45 PM  | R27323              |
| Copper                                                | ND     | 0.0060  |      | mg/L     | 1   | 7/7/2015 3:26:45 PM  | R27323              |
| Iron                                                  | ND     | 0.020   |      | mg/L     | 1   | 7/7/2015 3:26:45 PM  | R27323              |
| Manganese                                             | 0.010  | 0.0020  |      | mg/L     | 1   | 7/7/2015 3:26:45 PM  | R27323              |
| Molybdenum                                            | ND     | 0.0080  |      | mg/L     | 1   | 7/7/2015 3:26:45 PM  | R27323              |
| Nickel                                                | ND     | 0.010   |      | mg/L     | 1   | 7/7/2015 3:26:45 PM  | R27323              |
| Silver                                                | ND     | 0.0050  |      | mg/L     | 1   | 7/7/2015 3:26:45 PM  | R27323              |
| Zinc                                                  | 0.065  | 0.010   |      | mg/L     | 1   | 7/7/2015 3:26:45 PM  | R27323              |
| <b>EPA METHOD 245.1: MERCURY</b>                      |        |         |      |          |     |                      | Analyst: <b>JLF</b> |
| Mercury                                               | ND     | 0.00020 |      | mg/L     | 1   | 7/8/2015 4:37:50 PM  | 20160               |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |   |                                                 |    |                                                    |              |
|--------------------|---|-------------------------------------------------|----|----------------------------------------------------|--------------|
| <b>Qualifiers:</b> | * | Value exceeds Maximum Contaminant Level.        | B  | Analyte detected in the associated Method Blank    | Page 1 of 26 |
|                    | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |              |
|                    | J | Analyte detected below quantitation limits      | ND | Not Detected at the Reporting Limit                |              |
|                    | O | RSD is greater than RSDlimit                    | P  | Sample pH Not In Range                             |              |
|                    | R | RPD outside accepted recovery limits            | RL | Reporting Detection Limit                          |              |
|                    | S | Spike Recovery outside accepted recovery limits |    |                                                    |              |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1507158

Date Reported: 7/22/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** Temporary R.O.

**Project:** Monthly RO Reject

**Collection Date:** 7/1/2015 3:02:00 PM

**Lab ID:** 1507158-001

**Matrix:** AQUEOUS

**Received Date:** 7/3/2015 9:45:00 AM

| Analyses                                | Result | RL        | Qual | Units | DF | Date Analyzed         | Batch                |
|-----------------------------------------|--------|-----------|------|-------|----|-----------------------|----------------------|
| <b>EPA METHOD 8011/504.1: EDB</b>       |        |           |      |       |    |                       | Analyst: <b>KJH</b>  |
| 1,2-Dibromoethane                       | ND     | 0.010     |      | µg/L  | 1  | 7/9/2015 5:30:06 PM   | 20171                |
| <b>EPA METHOD 8082: PCB'S</b>           |        |           |      |       |    |                       | Analyst: <b>SCC</b>  |
| Aroclor 1016                            | ND     | 1.0       |      | µg/L  | 1  | 7/14/2015 10:41:50 AM | 20149                |
| Aroclor 1221                            | ND     | 1.0       |      | µg/L  | 1  | 7/14/2015 10:41:50 AM | 20149                |
| Aroclor 1232                            | ND     | 1.0       |      | µg/L  | 1  | 7/14/2015 10:41:50 AM | 20149                |
| Aroclor 1242                            | ND     | 1.0       |      | µg/L  | 1  | 7/14/2015 10:41:50 AM | 20149                |
| Aroclor 1248                            | ND     | 1.0       |      | µg/L  | 1  | 7/14/2015 10:41:50 AM | 20149                |
| Aroclor 1254                            | ND     | 1.0       |      | µg/L  | 1  | 7/14/2015 10:41:50 AM | 20149                |
| Aroclor 1260                            | ND     | 1.0       |      | µg/L  | 1  | 7/14/2015 10:41:50 AM | 20149                |
| Surr: Decachlorobiphenyl                | 70.8   | 44.5-110  |      | %REC  | 1  | 7/14/2015 10:41:50 AM | 20149                |
| Surr: Tetrachloro-m-xylene              | 58.8   | 31.8-95.7 |      | %REC  | 1  | 7/14/2015 10:41:50 AM | 20149                |
| <b>EPA METHOD 8015M/D: DIESEL RANGE</b> |        |           |      |       |    |                       | Analyst: <b>KJH</b>  |
| Diesel Range Organics (DRO)             | ND     | 1.0       |      | mg/L  | 1  | 7/6/2015 8:59:32 PM   | 20109                |
| Motor Oil Range Organics (MRO)          | ND     | 5.0       |      | mg/L  | 1  | 7/6/2015 8:59:32 PM   | 20109                |
| Surr: DNOP                              | 100    | 76.5-150  |      | %REC  | 1  | 7/6/2015 8:59:32 PM   | 20109                |
| <b>EPA METHOD 8015D: GASOLINE RANGE</b> |        |           |      |       |    |                       | Analyst: <b>NSB</b>  |
| Gasoline Range Organics (GRO)           | ND     | 0.050     |      | mg/L  | 1  | 7/7/2015 5:26:23 PM   | R27335               |
| Surr: BFB                               | 86.8   | 57.8-137  |      | %REC  | 1  | 7/7/2015 5:26:23 PM   | R27335               |
| <b>EPA METHOD 8310: PAHS</b>            |        |           |      |       |    |                       | Analyst: <b>SCC</b>  |
| Naphthalene                             | ND     | 2.0       |      | µg/L  | 1  | 7/8/2015 3:41:21 PM   | 20150                |
| 1-Methylnaphthalene                     | ND     | 2.0       |      | µg/L  | 1  | 7/8/2015 3:41:21 PM   | 20150                |
| 2-Methylnaphthalene                     | ND     | 2.0       |      | µg/L  | 1  | 7/8/2015 3:41:21 PM   | 20150                |
| Benzo(a)pyrene                          | ND     | 0.070     |      | µg/L  | 1  | 7/8/2015 3:41:21 PM   | 20150                |
| Surr: Benzo(e)pyrene                    | 81.0   | 37.2-136  |      | %REC  | 1  | 7/8/2015 3:41:21 PM   | 20150                |
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |           |      |       |    |                       | Analyst: <b>cadg</b> |
| Benzene                                 | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 5:46:58 AM  | R27395               |
| Toluene                                 | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 5:46:58 AM  | R27395               |
| Ethylbenzene                            | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 5:46:58 AM  | R27395               |
| 1,2-Dichloroethane (EDC)                | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 5:46:58 AM  | R27395               |
| 1,2-Dibromoethane (EDB)                 | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 5:46:58 AM  | R27395               |
| Carbon Tetrachloride                    | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 5:46:58 AM  | R27395               |
| Chloroform                              | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 5:46:58 AM  | R27395               |
| 1,1-Dichloroethane                      | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 5:46:58 AM  | R27395               |
| 1,1-Dichloroethene                      | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 5:46:58 AM  | R27395               |
| Methylene Chloride                      | ND     | 3.0       |      | µg/L  | 1  | 7/10/2015 5:46:58 AM  | R27395               |
| 1,1,2,2-Tetrachloroethane               | ND     | 2.0       |      | µg/L  | 1  | 7/10/2015 5:46:58 AM  | R27395               |
| Tetrachloroethene (PCE)                 | ND     | 1.0       |      | µg/L  | 1  | 7/10/2015 5:46:58 AM  | R27395               |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                   |                                                      |
|--------------------|---------------------------------------------------|------------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
|                    | E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
|                    | J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
|                    | O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
|                    | R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
|                    | S Spike Recovery outside accepted recovery limits |                                                      |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1507158

Date Reported: 7/22/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** Temporary R.O.

**Project:** Monthly RO Reject

**Collection Date:** 7/1/2015 3:02:00 PM

**Lab ID:** 1507158-001

**Matrix:** AQUEOUS

**Received Date:** 7/3/2015 9:45:00 AM

| Analyses                              | Result | RL     | Qual | Units | DF | Date Analyzed        | Batch                |
|---------------------------------------|--------|--------|------|-------|----|----------------------|----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b>    |        |        |      |       |    |                      | Analyst: <b>cadg</b> |
| 1,1,1-Trichloroethane                 | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:46:58 AM | R27395               |
| 1,1,2-Trichloroethane                 | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:46:58 AM | R27395               |
| Trichloroethene (TCE)                 | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:46:58 AM | R27395               |
| Vinyl chloride                        | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 5:46:58 AM | R27395               |
| Xylenes, Total                        | ND     | 1.5    |      | µg/L  | 1  | 7/10/2015 5:46:58 AM | R27395               |
| Surr: 1,2-Dichloroethane-d4           | 93.4   | 70-130 |      | %REC  | 1  | 7/10/2015 5:46:58 AM | R27395               |
| Surr: 4-Bromofluorobenzene            | 106    | 70-130 |      | %REC  | 1  | 7/10/2015 5:46:58 AM | R27395               |
| Surr: Dibromofluoromethane            | 88.7   | 70-130 |      | %REC  | 1  | 7/10/2015 5:46:58 AM | R27395               |
| Surr: Toluene-d8                      | 105    | 70-130 |      | %REC  | 1  | 7/10/2015 5:46:58 AM | R27395               |
| <b>TOTAL PHENOLICS BY SW-846 9067</b> |        |        |      |       |    |                      | Analyst: <b>SCC</b>  |
| Phenolics, Total Recoverable          | ND     | 2.5    |      | µg/L  | 1  | 7/7/2015             | 20119                |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |   |                                                 |    |                                                    |              |
|--------------------|---|-------------------------------------------------|----|----------------------------------------------------|--------------|
| <b>Qualifiers:</b> | * | Value exceeds Maximum Contaminant Level.        | B  | Analyte detected in the associated Method Blank    | Page 3 of 26 |
|                    | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |              |
|                    | J | Analyte detected below quantitation limits      | ND | Not Detected at the Reporting Limit                |              |
|                    | O | RSD is greater than RSDlimit                    | P  | Sample pH Not In Range                             |              |
|                    | R | RPD outside accepted recovery limits            | RL | Reporting Detection Limit                          |              |
|                    | S | Spike Recovery outside accepted recovery limits |    |                                                    |              |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1507158

Date Reported: 7/22/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** Trip Blank

**Project:** Monthly RO Reject

**Collection Date:**

**Lab ID:** 1507158-002

**Matrix:** TRIP BLANK

**Received Date:** 7/3/2015 9:45:00 AM

| Analyses                                | Result | RL       | Qual | Units | DF | Date Analyzed        | Batch                |
|-----------------------------------------|--------|----------|------|-------|----|----------------------|----------------------|
| <b>EPA METHOD 8011/504.1: EDB</b>       |        |          |      |       |    |                      | Analyst: <b>KJH</b>  |
| 1,2-Dibromoethane                       | ND     | 0.010    |      | µg/L  | 1  | 7/9/2015 5:43:48 PM  | 20171                |
| <b>EPA METHOD 8015D: GASOLINE RANGE</b> |        |          |      |       |    |                      | Analyst: <b>NSB</b>  |
| Gasoline Range Organics (GRO)           | ND     | 0.050    |      | mg/L  | 1  | 7/8/2015 2:03:47 AM  | R27335               |
| Surr: BFB                               | 86.3   | 57.8-137 |      | %REC  | 1  | 7/8/2015 2:03:47 AM  | R27335               |
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |          |      |       |    |                      | Analyst: <b>cadg</b> |
| Benzene                                 | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Toluene                                 | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Ethylbenzene                            | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Methyl tert-butyl ether (MTBE)          | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| 1,2,4-Trimethylbenzene                  | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| 1,3,5-Trimethylbenzene                  | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| 1,2-Dichloroethane (EDC)                | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| 1,2-Dibromoethane (EDB)                 | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Naphthalene                             | ND     | 2.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| 1-Methylnaphthalene                     | ND     | 4.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| 2-Methylnaphthalene                     | ND     | 4.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Acetone                                 | ND     | 10       |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Bromobenzene                            | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Bromodichloromethane                    | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Bromoform                               | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Bromomethane                            | ND     | 3.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| 2-Butanone                              | ND     | 10       |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Carbon disulfide                        | ND     | 10       |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Carbon Tetrachloride                    | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Chlorobenzene                           | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Chloroethane                            | ND     | 2.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Chloroform                              | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Chloromethane                           | ND     | 3.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| 2-Chlorotoluene                         | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| 4-Chlorotoluene                         | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| cis-1,2-DCE                             | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| cis-1,3-Dichloropropene                 | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| 1,2-Dibromo-3-chloropropane             | ND     | 2.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Dibromochloromethane                    | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| Dibromomethane                          | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| 1,2-Dichlorobenzene                     | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| 1,3-Dichlorobenzene                     | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |
| 1,4-Dichlorobenzene                     | ND     | 1.0      |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395               |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                   |                                                      |
|--------------------|---------------------------------------------------|------------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
|                    | E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
|                    | J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
|                    | O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
|                    | R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
|                    | S Spike Recovery outside accepted recovery limits |                                                      |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1507158

Date Reported: 7/22/2015

**CLIENT:** Navajo Refining Company

**Client Sample ID:** Trip Blank

**Project:** Monthly RO Reject

**Collection Date:**

**Lab ID:** 1507158-002

**Matrix:** TRIP BLANK

**Received Date:** 7/3/2015 9:45:00 AM

| Analyses                           | Result | RL     | Qual | Units | DF | Date Analyzed        | Batch         |
|------------------------------------|--------|--------|------|-------|----|----------------------|---------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |        |      |       |    |                      | Analyst: cadg |
| Dichlorodifluoromethane            | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| 1,1-Dichloroethane                 | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| 1,1-Dichloroethene                 | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| 1,2-Dichloropropane                | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| 1,3-Dichloropropane                | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| 2,2-Dichloropropane                | ND     | 2.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| 1,1-Dichloropropene                | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| Hexachlorobutadiene                | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| 2-Hexanone                         | ND     | 10     |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| Isopropylbenzene                   | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| 4-Isopropyltoluene                 | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| 4-Methyl-2-pentanone               | ND     | 10     |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| Methylene Chloride                 | ND     | 3.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| n-Butylbenzene                     | ND     | 3.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| n-Propylbenzene                    | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| sec-Butylbenzene                   | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| Styrene                            | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| tert-Butylbenzene                  | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| 1,1,1,2-Tetrachloroethane          | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| 1,1,2,2-Tetrachloroethane          | ND     | 2.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| Tetrachloroethene (PCE)            | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| trans-1,2-DCE                      | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| trans-1,3-Dichloropropene          | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| 1,2,3-Trichlorobenzene             | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| 1,2,4-Trichlorobenzene             | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| 1,1,1-Trichloroethane              | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| 1,1,2-Trichloroethane              | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| Trichloroethene (TCE)              | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| Trichlorofluoromethane             | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| 1,2,3-Trichloropropane             | ND     | 2.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| Vinyl chloride                     | ND     | 1.0    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| Xylenes, Total                     | ND     | 1.5    |      | µg/L  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| Surr: 1,2-Dichloroethane-d4        | 101    | 70-130 |      | %REC  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| Surr: 4-Bromofluorobenzene         | 103    | 70-130 |      | %REC  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| Surr: Dibromofluoromethane         | 97.8   | 70-130 |      | %REC  | 1  | 7/10/2015 6:15:42 AM | R27395        |
| Surr: Toluene-d8                   | 104    | 70-130 |      | %REC  | 1  | 7/10/2015 6:15:42 AM | R27395        |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                   |                                                      |
|--------------------|---------------------------------------------------|------------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
|                    | E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
|                    | J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
|                    | O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
|                    | R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
|                    | S Spike Recovery outside accepted recovery limits |                                                      |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507158

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                       |                                |        |                                                     |             |                    |          |           |      |          |      |
|-----------------------|--------------------------------|--------|-----------------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>MB</b>   | SampType: <b>MBLK</b>          |        | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |             |                    |          |           |      |          |      |
| Client ID: <b>PBW</b> | Batch ID: <b>R27323</b>        |        | RunNo: <b>27323</b>                                 |             |                    |          |           |      |          |      |
| Prep Date:            | Analysis Date: <b>7/7/2015</b> |        | SeqNo: <b>818884</b>                                |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte               | Result                         | PQL    | SPK value                                           | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum              | ND                             | 0.020  |                                                     |             |                    |          |           |      |          |      |
| Barium                | ND                             | 0.0020 |                                                     |             |                    |          |           |      |          |      |
| Boron                 | ND                             | 0.040  |                                                     |             |                    |          |           |      |          |      |
| Cadmium               | ND                             | 0.0020 |                                                     |             |                    |          |           |      |          |      |
| Chromium              | ND                             | 0.0060 |                                                     |             |                    |          |           |      |          |      |
| Cobalt                | ND                             | 0.0060 |                                                     |             |                    |          |           |      |          |      |
| Copper                | ND                             | 0.0060 |                                                     |             |                    |          |           |      |          |      |
| Iron                  | ND                             | 0.020  |                                                     |             |                    |          |           |      |          |      |
| Manganese             | ND                             | 0.0020 |                                                     |             |                    |          |           |      |          |      |
| Molybdenum            | ND                             | 0.0080 |                                                     |             |                    |          |           |      |          |      |
| Nickel                | ND                             | 0.010  |                                                     |             |                    |          |           |      |          |      |
| Silver                | ND                             | 0.0050 |                                                     |             |                    |          |           |      |          |      |
| Zinc                  | ND                             | 0.010  |                                                     |             |                    |          |           |      |          |      |

|                        |                                |        |                                                     |             |                    |          |           |      |          |      |
|------------------------|--------------------------------|--------|-----------------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>LCS</b>   | SampType: <b>LCS</b>           |        | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |             |                    |          |           |      |          |      |
| Client ID: <b>LCSW</b> | Batch ID: <b>R27323</b>        |        | RunNo: <b>27323</b>                                 |             |                    |          |           |      |          |      |
| Prep Date:             | Analysis Date: <b>7/7/2015</b> |        | SeqNo: <b>818885</b>                                |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                | Result                         | PQL    | SPK value                                           | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum               | 0.53                           | 0.020  | 0.5000                                              | 0           | 106                | 85       | 115       |      |          |      |
| Barium                 | 0.47                           | 0.0020 | 0.5000                                              | 0           | 94.9               | 85       | 115       |      |          |      |
| Boron                  | 0.50                           | 0.040  | 0.5000                                              | 0           | 100                | 85       | 115       |      |          |      |
| Cadmium                | 0.51                           | 0.0020 | 0.5000                                              | 0           | 102                | 85       | 115       |      |          |      |
| Chromium               | 0.48                           | 0.0060 | 0.5000                                              | 0           | 96.4               | 85       | 115       |      |          |      |
| Cobalt                 | 0.49                           | 0.0060 | 0.5000                                              | 0           | 97.9               | 85       | 115       |      |          |      |
| Copper                 | 0.47                           | 0.0060 | 0.5000                                              | 0           | 95.0               | 85       | 115       |      |          |      |
| Iron                   | 0.47                           | 0.020  | 0.5000                                              | 0           | 93.1               | 85       | 115       |      |          |      |
| Manganese              | 0.48                           | 0.0020 | 0.5000                                              | 0           | 96.9               | 85       | 115       |      |          |      |
| Molybdenum             | 0.49                           | 0.0080 | 0.5000                                              | 0           | 98.0               | 85       | 115       |      |          |      |
| Nickel                 | 0.48                           | 0.010  | 0.5000                                              | 0           | 95.7               | 85       | 115       |      |          |      |
| Silver                 | 0.099                          | 0.0050 | 0.1000                                              | 0           | 99.3               | 85       | 115       |      |          |      |
| Zinc                   | 0.47                           | 0.010  | 0.5000                                              | 0           | 94.4               | 85       | 115       |      |          |      |

|                           |                                |        |                                                     |             |                    |          |           |      |          |      |
|---------------------------|--------------------------------|--------|-----------------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>LLLCS</b>    | SampType: <b>LCSLL</b>         |        | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |             |                    |          |           |      |          |      |
| Client ID: <b>BatchQC</b> | Batch ID: <b>R27323</b>        |        | RunNo: <b>27323</b>                                 |             |                    |          |           |      |          |      |
| Prep Date:                | Analysis Date: <b>7/7/2015</b> |        | SeqNo: <b>818886</b>                                |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                   | Result                         | PQL    | SPK value                                           | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum                  | ND                             | 0.020  | 0.01000                                             | 0           | 147                | 50       | 150       |      |          |      |
| Barium                    | 0.0022                         | 0.0020 | 0.002000                                            | 0           | 112                | 50       | 150       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507158

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |         |                |          |           |                                    |        |      |  |  |  |
|------------|---------|----------------|----------|-----------|------------------------------------|--------|------|--|--|--|
| Sample ID  | LLLCS   | SampType:      | LCSLL    | TestCode: | EPA Method 200.7: Dissolved Metals |        |      |  |  |  |
| Client ID: | BatchQC | Batch ID:      | R27323   | RunNo:    | 27323                              |        |      |  |  |  |
| Prep Date: |         | Analysis Date: | 7/7/2015 | SeqNo:    | 818886                             | Units: | mg/L |  |  |  |

| Analyte    | Result | PQL    | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|------------|--------|--------|-----------|-------------|------|----------|-----------|------|----------|------|
| Boron      | ND     | 0.040  | 0.04000   | 0           | 89.4 | 50       | 150       |      |          |      |
| Cadmium    | 0.0020 | 0.0020 | 0.002000  | 0           | 101  | 50       | 150       |      |          |      |
| Chromium   | ND     | 0.0060 | 0.006000  | 0           | 89.8 | 50       | 150       |      |          |      |
| Cobalt     | ND     | 0.0060 | 0.006000  | 0           | 97.2 | 50       | 150       |      |          |      |
| Copper     | ND     | 0.0060 | 0.006000  | 0           | 99.2 | 50       | 150       |      |          |      |
| Iron       | 0.022  | 0.020  | 0.02000   | 0           | 112  | 50       | 150       |      |          |      |
| Manganese  | ND     | 0.0020 | 0.002000  | 0           | 98.0 | 50       | 150       |      |          |      |
| Molybdenum | 0.0092 | 0.0080 | 0.008000  | 0           | 115  | 50       | 150       |      |          |      |
| Nickel     | ND     | 0.010  | 0.005000  | 0           | 92.4 | 50       | 150       |      |          |      |
| Silver     | 0.0055 | 0.0050 | 0.005000  | 0           | 109  | 50       | 150       |      |          |      |
| Zinc       | ND     | 0.010  | 0.005000  | 0           | 90.4 | 50       | 150       |      |          |      |

|            |     |                |          |           |                                    |        |      |  |  |  |
|------------|-----|----------------|----------|-----------|------------------------------------|--------|------|--|--|--|
| Sample ID  | MB  | SampType:      | MBLK     | TestCode: | EPA Method 200.7: Dissolved Metals |        |      |  |  |  |
| Client ID: | PBW | Batch ID:      | R27323   | RunNo:    | 27323                              |        |      |  |  |  |
| Prep Date: |     | Analysis Date: | 7/7/2015 | SeqNo:    | 818887                             | Units: | mg/L |  |  |  |

| Analyte    | Result | PQL    | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|------------|--------|--------|-----------|-------------|------|----------|-----------|------|----------|------|
| Aluminum   | ND     | 0.020  |           |             |      |          |           |      |          |      |
| Barium     | ND     | 0.0020 |           |             |      |          |           |      |          |      |
| Boron      | ND     | 0.040  |           |             |      |          |           |      |          |      |
| Cadmium    | ND     | 0.0020 |           |             |      |          |           |      |          |      |
| Chromium   | ND     | 0.0060 |           |             |      |          |           |      |          |      |
| Cobalt     | ND     | 0.0060 |           |             |      |          |           |      |          |      |
| Copper     | ND     | 0.0060 |           |             |      |          |           |      |          |      |
| Iron       | ND     | 0.020  |           |             |      |          |           |      |          |      |
| Manganese  | ND     | 0.0020 |           |             |      |          |           |      |          |      |
| Molybdenum | ND     | 0.0080 |           |             |      |          |           |      |          |      |
| Nickel     | ND     | 0.010  |           |             |      |          |           |      |          |      |
| Silver     | ND     | 0.0050 |           |             |      |          |           |      |          |      |
| Zinc       | ND     | 0.010  |           |             |      |          |           |      |          |      |

|            |      |                |          |           |                                    |        |      |  |  |  |
|------------|------|----------------|----------|-----------|------------------------------------|--------|------|--|--|--|
| Sample ID  | LCS  | SampType:      | LCS      | TestCode: | EPA Method 200.7: Dissolved Metals |        |      |  |  |  |
| Client ID: | LCSW | Batch ID:      | R27323   | RunNo:    | 27323                              |        |      |  |  |  |
| Prep Date: |      | Analysis Date: | 7/7/2015 | SeqNo:    | 818888                             | Units: | mg/L |  |  |  |

| Analyte  | Result | PQL    | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|----------|--------|--------|-----------|-------------|------|----------|-----------|------|----------|------|
| Aluminum | 0.54   | 0.020  | 0.5000    | 0           | 108  | 85       | 115       |      |          |      |
| Barium   | 0.48   | 0.0020 | 0.5000    | 0           | 95.6 | 85       | 115       |      |          |      |
| Boron    | 0.51   | 0.040  | 0.5000    | 0           | 101  | 85       | 115       |      |          |      |
| Cadmium  | 0.51   | 0.0020 | 0.5000    | 0           | 103  | 85       | 115       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507158

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |                         |        |                  |               |      |                                              |           |      |          |      |
|------------|-------------------------|--------|------------------|---------------|------|----------------------------------------------|-----------|------|----------|------|
| Sample ID  | LCS                     |        | SampType: LCS    |               |      | TestCode: EPA Method 200.7: Dissolved Metals |           |      |          |      |
| Client ID: | LCSW                    |        | Batch ID: R27323 |               |      | RunNo: 27323                                 |           |      |          |      |
| Prep Date: | Analysis Date: 7/7/2015 |        |                  | SeqNo: 818888 |      | Units: mg/L                                  |           |      |          |      |
| Analyte    | Result                  | PQL    | SPK value        | SPK Ref Val   | %REC | LowLimit                                     | HighLimit | %RPD | RPDLimit | Qual |
| Chromium   | 0.48                    | 0.0060 | 0.5000           | 0             | 96.3 | 85                                           | 115       |      |          |      |
| Cobalt     | 0.49                    | 0.0060 | 0.5000           | 0             | 98.5 | 85                                           | 115       |      |          |      |
| Copper     | 0.48                    | 0.0060 | 0.5000           | 0             | 96.1 | 85                                           | 115       |      |          |      |
| Iron       | 0.49                    | 0.020  | 0.5000           | 0             | 97.1 | 85                                           | 115       |      |          |      |
| Manganese  | 0.49                    | 0.0020 | 0.5000           | 0             | 97.6 | 85                                           | 115       |      |          |      |
| Molybdenum | 0.49                    | 0.0080 | 0.5000           | 0             | 98.1 | 85                                           | 115       |      |          |      |
| Nickel     | 0.48                    | 0.010  | 0.5000           | 0             | 96.1 | 85                                           | 115       |      |          |      |
| Silver     | 0.10                    | 0.0050 | 0.1000           | 0             | 99.9 | 85                                           | 115       |      |          |      |
| Zinc       | 0.48                    | 0.010  | 0.5000           | 0             | 95.0 | 85                                           | 115       |      |          |      |

|            |         |        |                         |             |                                              |          |             |      |          |      |
|------------|---------|--------|-------------------------|-------------|----------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LLLCS   |        | SampType: LCSLL         |             | TestCode: EPA Method 200.7: Dissolved Metals |          |             |      |          |      |
| Client ID: | BatchQC |        | Batch ID: R27323        |             | RunNo: 27323                                 |          |             |      |          |      |
| Prep Date: |         |        | Analysis Date: 7/7/2015 |             | SeqNo: 818889                                |          | Units: mg/L |      |          |      |
| Analyte    | Result  | PQL    | SPK value               | SPK Ref Val | %REC                                         | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Aluminum   | ND      | 0.020  | 0.01000                 | 0           | 133                                          | 50       | 150         |      |          |      |
| Barium     | 0.0024  | 0.0020 | 0.002000                | 0           | 118                                          | 50       | 150         |      |          |      |
| Boron      | ND      | 0.040  | 0.04000                 | 0           | 89.1                                         | 50       | 150         |      |          |      |
| Cadmium    | ND      | 0.0020 | 0.002000                | 0           | 89.0                                         | 50       | 150         |      |          |      |
| Chromium   | ND      | 0.0060 | 0.006000                | 0           | 75.2                                         | 50       | 150         |      |          |      |
| Cobalt     | 0.0065  | 0.0060 | 0.006000                | 0           | 108                                          | 50       | 150         |      |          |      |
| Copper     | 0.0066  | 0.0060 | 0.006000                | 0           | 110                                          | 50       | 150         |      |          |      |
| Iron       | 0.021   | 0.020  | 0.02000                 | 0           | 106                                          | 50       | 150         |      |          |      |
| Manganese  | 0.0020  | 0.0020 | 0.002000                | 0           | 103                                          | 50       | 150         |      |          |      |
| Molybdenum | 0.011   | 0.0080 | 0.008000                | 0           | 140                                          | 50       | 150         |      |          |      |
| Nickel     | ND      | 0.010  | 0.005000                | 0           | 104                                          | 50       | 150         |      |          |      |
| Silver     | ND      | 0.0050 | 0.005000                | 0           | 72.0                                         | 50       | 150         |      |          |      |
| Zinc       | ND      | 0.010  | 0.005000                | 0           | 88.8                                         | 50       | 150         |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507158

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |        |         |                          |             |      |                                       |           |             |          |      |
|------------|--------|---------|--------------------------|-------------|------|---------------------------------------|-----------|-------------|----------|------|
| Sample ID  | LCS    |         | SampType: LCS            |             |      | TestCode: EPA 200.8: Dissolved Metals |           |             |          |      |
| Client ID: | LCSW   |         | Batch ID: R27505         |             |      | RunNo: 27505                          |           |             |          |      |
| Prep Date: |        |         | Analysis Date: 7/14/2015 |             |      | SeqNo: 825388                         |           | Units: mg/L |          |      |
| Analyte    | Result | PQL     | SPK value                | SPK Ref Val | %REC | LowLimit                              | HighLimit | %RPD        | RPDLimit | Qual |
| Arsenic    | 0.025  | 0.0010  | 0.02500                  | 0           | 101  | 85                                    | 115       |             |          |      |
| Lead       | 0.013  | 0.00050 | 0.01250                  | 0           | 100  | 85                                    | 115       |             |          |      |
| Selenium   | 0.025  | 0.0010  | 0.02500                  | 0           | 100  | 85                                    | 115       |             |          |      |
| Uranium    | 0.013  | 0.00050 | 0.01250                  | 0           | 100  | 85                                    | 115       |             |          |      |

|            |        |         |                          |             |      |                                       |           |             |          |      |
|------------|--------|---------|--------------------------|-------------|------|---------------------------------------|-----------|-------------|----------|------|
| Sample ID  | LCS    |         | SampType: LCS            |             |      | TestCode: EPA 200.8: Dissolved Metals |           |             |          |      |
| Client ID: | LCSW   |         | Batch ID: R27505         |             |      | RunNo: 27505                          |           |             |          |      |
| Prep Date: |        |         | Analysis Date: 7/14/2015 |             |      | SeqNo: 825389                         |           | Units: mg/L |          |      |
| Analyte    | Result | PQL     | SPK value                | SPK Ref Val | %REC | LowLimit                              | HighLimit | %RPD        | RPDLimit | Qual |
| Arsenic    | 0.025  | 0.0010  | 0.02500                  | 0           | 100  | 85                                    | 115       |             |          |      |
| Lead       | 0.013  | 0.00050 | 0.01250                  | 0           | 102  | 85                                    | 115       |             |          |      |
| Selenium   | 0.026  | 0.0010  | 0.02500                  | 0           | 104  | 85                                    | 115       |             |          |      |
| Uranium    | 0.013  | 0.00050 | 0.01250                  | 0           | 102  | 85                                    | 115       |             |          |      |

|            |         |         |                          |             |      |                                       |           |             |          |      |
|------------|---------|---------|--------------------------|-------------|------|---------------------------------------|-----------|-------------|----------|------|
| Sample ID  | LLLCS   |         | SampType: LCSLL          |             |      | TestCode: EPA 200.8: Dissolved Metals |           |             |          |      |
| Client ID: | BatchQC |         | Batch ID: R27505         |             |      | RunNo: 27505                          |           |             |          |      |
| Prep Date: |         |         | Analysis Date: 7/14/2015 |             |      | SeqNo: 825390                         |           | Units: mg/L |          |      |
| Analyte    | Result  | PQL     | SPK value                | SPK Ref Val | %REC | LowLimit                              | HighLimit | %RPD        | RPDLimit | Qual |
| Arsenic    | ND      | 0.0010  | 0.001000                 | 0           | 94.0 | 50                                    | 150       |             |          |      |
| Lead       | 0.00052 | 0.00050 | 0.0005000                | 0           | 103  | 50                                    | 150       |             |          |      |
| Selenium   | ND      | 0.0010  | 0.001000                 | 0           | 98.3 | 50                                    | 150       |             |          |      |
| Uranium    | 0.00050 | 0.00050 | 0.0005000                | 0           | 100  | 50                                    | 150       |             |          |      |

|            |         |         |                          |             |      |                                       |           |             |          |      |
|------------|---------|---------|--------------------------|-------------|------|---------------------------------------|-----------|-------------|----------|------|
| Sample ID  | LLLCS   |         | SampType: LCSLL          |             |      | TestCode: EPA 200.8: Dissolved Metals |           |             |          |      |
| Client ID: | BatchQC |         | Batch ID: R27505         |             |      | RunNo: 27505                          |           |             |          |      |
| Prep Date: |         |         | Analysis Date: 7/14/2015 |             |      | SeqNo: 825391                         |           | Units: mg/L |          |      |
| Analyte    | Result  | PQL     | SPK value                | SPK Ref Val | %REC | LowLimit                              | HighLimit | %RPD        | RPDLimit | Qual |
| Arsenic    | 0.0010  | 0.0010  | 0.001000                 | 0           | 102  | 50                                    | 150       |             |          |      |
| Lead       | 0.00052 | 0.00050 | 0.0005000                | 0           | 104  | 50                                    | 150       |             |          |      |
| Selenium   | 0.0011  | 0.0010  | 0.001000                 | 0           | 108  | 50                                    | 150       |             |          |      |
| Uranium    | 0.00050 | 0.00050 | 0.0005000                | 0           | 101  | 50                                    | 150       |             |          |      |

|            |        |     |                          |             |      |                                       |           |             |          |      |
|------------|--------|-----|--------------------------|-------------|------|---------------------------------------|-----------|-------------|----------|------|
| Sample ID  | MB     |     | SampType: MBLK           |             |      | TestCode: EPA 200.8: Dissolved Metals |           |             |          |      |
| Client ID: | PBW    |     | Batch ID: R27505         |             |      | RunNo: 27505                          |           |             |          |      |
| Prep Date: |        |     | Analysis Date: 7/14/2015 |             |      | SeqNo: 825392                         |           | Units: mg/L |          |      |
| Analyte    | Result | PQL | SPK value                | SPK Ref Val | %REC | LowLimit                              | HighLimit | %RPD        | RPDLimit | Qual |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507158

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |        |                |           |             |                             |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R27505    | RunNo:      | 27505                       |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 7/14/2015 | SeqNo:      | 825392                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic    | ND     | 0.0010         |           |             |                             |          |           |      |          |      |
| Lead       | ND     | 0.00050        |           |             |                             |          |           |      |          |      |
| Selenium   | ND     | 0.0010         |           |             |                             |          |           |      |          |      |
| Uranium    | ND     | 0.00050        |           |             |                             |          |           |      |          |      |

|            |        |                |           |             |                             |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R27505    | RunNo:      | 27505                       |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 7/14/2015 | SeqNo:      | 825393                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic    | ND     | 0.0010         |           |             |                             |          |           |      |          |      |
| Lead       | ND     | 0.00050        |           |             |                             |          |           |      |          |      |
| Selenium   | ND     | 0.0010         |           |             |                             |          |           |      |          |      |
| Uranium    | ND     | 0.00050        |           |             |                             |          |           |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507158

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |          |         |                         |             |                                     |          |             |      |          |      |
|------------|----------|---------|-------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-20160 |         | SampType: MBLK          |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | PBW      |         | Batch ID: 20160         |             | RunNo: 27365                        |          |             |      |          |      |
| Prep Date: | 7/8/2015 |         | Analysis Date: 7/8/2015 |             | SeqNo: 820623                       |          | Units: mg/L |      |          |      |
| Analyte    | Result   | PQL     | SPK value               | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercurv    | ND       | 0.00020 |                         |             |                                     |          |             |      |          |      |

|            |           |         |                         |             |                                     |          |             |      |          |      |
|------------|-----------|---------|-------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-20160 |         | SampType: LCS           |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | LCSW      |         | Batch ID: 20160         |             | RunNo: 27365                        |          |             |      |          |      |
| Prep Date: | 7/8/2015  |         | Analysis Date: 7/8/2015 |             | SeqNo: 820626                       |          | Units: mg/L |      |          |      |
| Analyte    | Result    | PQL     | SPK value               | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercury    | 0.0049    | 0.00020 | 0.005000                | 0           | 98.8                                | 80       | 120         |      |          |      |

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|                      |        |                         |           |             |                                    |          |             |      |          |      |
|----------------------|--------|-------------------------|-----------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID            | MB     | SampType: MBLK          |           |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID:           | PBW    | Batch ID: R27319        |           |             | RunNo: 27319                       |          |             |      |          |      |
| Prep Date:           |        | Analysis Date: 7/6/2015 |           |             | SeqNo: 818775                      |          | Units: mg/L |      |          |      |
| Analyte              | Result | PQL                     | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Fluoride             | ND     | 0.10                    |           |             |                                    |          |             |      |          |      |
| Chloride             | ND     | 0.50                    |           |             |                                    |          |             |      |          |      |
| Nitrate+Nitrite as N | ND     | 0.20                    |           |             |                                    |          |             |      |          |      |

|                      |        |      |                         |             |                                    |          |             |      |          |      |
|----------------------|--------|------|-------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID            | LCS    |      | SampType: LCS           |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID:           | LCSW   |      | Batch ID: R27319        |             | RunNo: 27319                       |          |             |      |          |      |
| Prep Date:           |        |      | Analysis Date: 7/6/2015 |             | SeqNo: 818776                      |          | Units: mg/L |      |          |      |
| Analyte              | Result | PQL  | SPK value               | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Fluoride             | 0.51   | 0.10 | 0.5000                  | 0           | 102                                | 90       | 110         |      |          |      |
| Chloride             | 4.7    | 0.50 | 5.000                   | 0           | 93.6                               | 90       | 110         |      |          |      |
| Nitrate+Nitrite as N | 3.5    | 0.20 | 3.500                   | 0           | 99.2                               | 90       | 110         |      |          |      |

|            |        |                          |           |             |                                    |          |             |      |          |      |
|------------|--------|--------------------------|-----------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK           |           |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R27535         |           |             | RunNo: 27535                       |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 7/15/2015 |           |             | SeqNo: 826667                      |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                      | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Sulfate    | ND     | 0.50                     |           |             |                                    |          |             |      |          |      |

|            |        |      |                          |             |      |                                    |           |             |          |      |
|------------|--------|------|--------------------------|-------------|------|------------------------------------|-----------|-------------|----------|------|
| Sample ID  | LCS    |      | SampType: LCS            |             |      | TestCode: EPA Method 300.0: Anions |           |             |          |      |
| Client ID: | LCSW   |      | Batch ID: R27535         |             |      | RunNo: 27535                       |           |             |          |      |
| Prep Date: |        |      | Analysis Date: 7/15/2015 |             |      | SeqNo: 826668                      |           | Units: mg/L |          |      |
| Analyte    | Result | PQL  | SPK value                | SPK Ref Val | %REC | LowLimit                           | HighLimit | %RPD        | RPDLimit | Qual |
| Sulfate    | 10     | 0.50 | 10.00                    | 0           | 100  | 90                                 | 110       |             |          |      |

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# QC SUMMARY REPORT

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WO#: 1507158

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                   |          |       |                         |             |                                      |          |             |      |          |      |
|-------------------|----------|-------|-------------------------|-------------|--------------------------------------|----------|-------------|------|----------|------|
| Sample ID         | MB-20171 |       | SampType: MBLK          |             | TestCode: EPA Method 8011/504.1: EDB |          |             |      |          |      |
| Client ID:        | PBW      |       | Batch ID: 20171         |             | RunNo: 27393                         |          |             |      |          |      |
| Prep Date:        | 7/9/2015 |       | Analysis Date: 7/9/2015 |             | SeqNo: 821853                        |          | Units: µg/L |      |          |      |
| Analyte           | Result   | PQL   | SPK value               | SPK Ref Val | %REC                                 | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | ND       | 0.010 |                         |             |                                      |          |             |      |          |      |

|                   |           |       |                         |             |                                      |          |             |      |          |      |
|-------------------|-----------|-------|-------------------------|-------------|--------------------------------------|----------|-------------|------|----------|------|
| Sample ID         | LCS-20171 |       | SampType: LCS           |             | TestCode: EPA Method 8011/504.1: EDB |          |             |      |          |      |
| Client ID:        | LCSW      |       | Batch ID: 20171         |             | RunNo: 27393                         |          |             |      |          |      |
| Prep Date:        | 7/9/2015  |       | Analysis Date: 7/9/2015 |             | SeqNo: 821854                        |          | Units: µg/L |      |          |      |
| Analyte           | Result    | PQL   | SPK value               | SPK Ref Val | %REC                                 | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | 0.11      | 0.010 | 0.1000                  | 0           | 107                                  | 70       | 130         |      |          |      |

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|                                |          |                         |           |             |                                            |          |             |      |          |      |
|--------------------------------|----------|-------------------------|-----------|-------------|--------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                      | MB-20109 | SampType: MBLK          |           |             | TestCode: EPA Method 8015M/D: Diesel Range |          |             |      |          |      |
| Client ID:                     | PBW      | Batch ID: 20109         |           |             | RunNo: 27291                               |          |             |      |          |      |
| Prep Date:                     | 7/6/2015 | Analysis Date: 7/6/2015 |           |             | SeqNo: 818285                              |          | Units: mg/L |      |          |      |
| Analyte                        | Result   | PQL                     | SPK value | SPK Ref Val | %REC                                       | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND       | 1.0                     |           |             |                                            |          |             |      |          |      |
| Motor Oil Range Organics (MRO) | ND       | 5.0                     |           |             |                                            |          |             |      |          |      |
| Surr: DNOP                     | 0.88     |                         | 1.000     |             | 88.5                                       | 76.5     | 150         |      |          |      |

|                             |           |     |                         |             |                                            |          |             |      |          |      |
|-----------------------------|-----------|-----|-------------------------|-------------|--------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | LCS-20109 |     | SampType: LCS           |             | TestCode: EPA Method 8015M/D: Diesel Range |          |             |      |          |      |
| Client ID:                  | LCSW      |     | Batch ID: 20109         |             | RunNo: 27291                               |          |             |      |          |      |
| Prep Date:                  | 7/6/2015  |     | Analysis Date: 7/6/2015 |             | SeqNo: 818286                              |          | Units: mg/L |      |          |      |
| Analyte                     | Result    | PQL | SPK value               | SPK Ref Val | %REC                                       | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 4.1       | 1.0 | 5.000                   | 0           | 81.8                                       | 60.1     | 156         |      |          |      |
| Surr: DNOP                  | 0.49      |     | 0.5000                  |             | 97.8                                       | 76.5     | 150         |      |          |      |

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|                               |        |                |           |             |                                  |          |           |      |          |      |
|-------------------------------|--------|----------------|-----------|-------------|----------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | 5ML RB | SampType:      | MBLK      | TestCode:   | EPA Method 8015D: Gasoline Range |          |           |      |          |      |
| Client ID:                    | PBW    | Batch ID:      | R27335    | RunNo:      | 27335                            |          |           |      |          |      |
| Prep Date:                    |        | Analysis Date: | 7/7/2015  | SeqNo:      | 819311                           | Units:   | mg/L      |      |          |      |
| Analyte                       | Result | PQL            | SPK value | SPK Ref Val | %REC                             | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND     | 0.050          |           |             |                                  |          |           |      |          |      |
| Surr: BFB                     | 18     |                | 20.00     |             | 89.3                             | 57.8     | 137       |      |          |      |

|                               |               |                |           |             |                                  |          |           |      |          |      |
|-------------------------------|---------------|----------------|-----------|-------------|----------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | 2.5UG GRO LCS | SampType:      | LCS       | TestCode:   | EPA Method 8015D: Gasoline Range |          |           |      |          |      |
| Client ID:                    | LCSW          | Batch ID:      | R27335    | RunNo:      | 27335                            |          |           |      |          |      |
| Prep Date:                    |               | Analysis Date: | 7/7/2015  | SeqNo:      | 819312                           | Units:   | mg/L      |      |          |      |
| Analyte                       | Result        | PQL            | SPK value | SPK Ref Val | %REC                             | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 0.48          | 0.050          | 0.5000    | 0           | 95.0                             | 80       | 120       |      |          |      |
| Surr: BFB                     | 19            |                | 20.00     |             | 94.6                             | 57.8     | 137       |      |          |      |

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|                            |                 |     |                                 |             |                                         |          |                    |      |          |      |
|----------------------------|-----------------|-----|---------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>MB-20149</b> |     | SampType: <b>MBLK</b>           |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>PBW</b>      |     | Batch ID: <b>20149</b>          |             | RunNo: <b>27467</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>7/8/2015</b> |     | Analysis Date: <b>7/14/2015</b> |             | SeqNo: <b>824114</b>                    |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                    | Result          | PQL | SPK value                       | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Aroclor 1016               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1221               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1232               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1242               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1248               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1254               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Aroclor 1260               | ND              | 1.0 |                                 |             |                                         |          |                    |      |          |      |
| Surr: Decachlorobiphenyl   | 1.5             |     | 2.500                           |             | 60.8                                    | 44.5     | 110                |      |          |      |
| Surr: Tetrachloro-m-xylene | 1.6             |     | 2.500                           |             | 62.8                                    | 31.8     | 95.7               |      |          |      |

|                            |                  |     |                                 |             |                                         |          |                    |      |          |      |
|----------------------------|------------------|-----|---------------------------------|-------------|-----------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>LCS-20149</b> |     | SampType: <b>LCS</b>            |             | TestCode: <b>EPA Method 8082: PCB's</b> |          |                    |      |          |      |
| Client ID:                 | <b>LCSW</b>      |     | Batch ID: <b>20149</b>          |             | RunNo: <b>27467</b>                     |          |                    |      |          |      |
| Prep Date:                 | <b>7/8/2015</b>  |     | Analysis Date: <b>7/14/2015</b> |             | SeqNo: <b>824697</b>                    |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                    | Result           | PQL | SPK value                       | SPK Ref Val | %REC                                    | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Aroclor 1016               | 3.6              | 1.0 | 5.000                           | 0           | 72.5                                    | 9.01     | 142                |      |          |      |
| Aroclor 1260               | 4.2              | 1.0 | 5.000                           | 0           | 84.4                                    | 25.6     | 164                |      |          |      |
| Surr: Decachlorobiphenyl   | 1.7              |     | 2.500                           |             | 68.8                                    | 44.5     | 110                |      |          |      |
| Surr: Tetrachloro-m-xylene | 1.9              |     | 2.500                           |             | 76.8                                    | 31.8     | 95.7               |      |          |      |

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22-Jul-15

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|                                |        |                |           |             |                             |          |           |      |          |      |
|--------------------------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID                      | rb1    | SampType:      | MBLK      | TestCode:   | EPA Method 8260B: VOLATILES |          |           |      |          |      |
| Client ID:                     | PBW    | Batch ID:      | R27395    | RunNo:      | 27395                       |          |           |      |          |      |
| Prep Date:                     |        | Analysis Date: | 7/9/2015  | SeqNo:      | 821898                      | Units:   | µg/L      |      |          |      |
| Analyte                        | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                        | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Toluene                        | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Ethylbenzene                   | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2,4-Trimethylbenzene         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,3,5-Trimethylbenzene         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Naphthalene                    | ND     | 2.0            |           |             |                             |          |           |      |          |      |
| 1-Methylnaphthalene            | ND     | 4.0            |           |             |                             |          |           |      |          |      |
| 2-Methylnaphthalene            | ND     | 4.0            |           |             |                             |          |           |      |          |      |
| Acetone                        | ND     | 10             |           |             |                             |          |           |      |          |      |
| Bromobenzene                   | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Bromodichloromethane           | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Bromoform                      | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Bromomethane                   | ND     | 3.0            |           |             |                             |          |           |      |          |      |
| 2-Butanone                     | ND     | 10             |           |             |                             |          |           |      |          |      |
| Carbon disulfide               | ND     | 10             |           |             |                             |          |           |      |          |      |
| Carbon Tetrachloride           | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Chlorobenzene                  | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Chloroethane                   | ND     | 2.0            |           |             |                             |          |           |      |          |      |
| Chloroform                     | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Chloromethane                  | ND     | 3.0            |           |             |                             |          |           |      |          |      |
| 2-Chlorotoluene                | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 4-Chlorotoluene                | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| cis-1,2-DCE                    | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| cis-1,3-Dichloropropene        | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND     | 2.0            |           |             |                             |          |           |      |          |      |
| Dibromochloromethane           | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Dibromomethane                 | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2-Dichlorobenzene            | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,3-Dichlorobenzene            | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,4-Dichlorobenzene            | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Dichlorodifluoromethane        | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1-Dichloroethane             | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1-Dichloroethene             | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2-Dichloropropane            | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,3-Dichloropropane            | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 2,2-Dichloropropane            | ND     | 2.0            |           |             |                             |          |           |      |          |      |

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WO#: 1507158

22-Jul-15

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Project: Monthly RO Reject

|                             |            |     |                                |             |      |                                              |           |                    |          |      |
|-----------------------------|------------|-----|--------------------------------|-------------|------|----------------------------------------------|-----------|--------------------|----------|------|
| Sample ID                   | <b>rb1</b> |     | SampType: <b>MBLK</b>          |             |      | TestCode: <b>EPA Method 8260B: VOLATILES</b> |           |                    |          |      |
| Client ID:                  | <b>PBW</b> |     | Batch ID: <b>R27395</b>        |             |      | RunNo: <b>27395</b>                          |           |                    |          |      |
| Prep Date:                  |            |     | Analysis Date: <b>7/9/2015</b> |             |      | SeqNo: <b>821898</b>                         |           | Units: <b>µg/L</b> |          |      |
| Analyte                     | Result     | PQL | SPK value                      | SPK Ref Val | %REC | LowLimit                                     | HighLimit | %RPD               | RPDLimit | Qual |
| 1,1-Dichloropropene         | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| Hexachlorobutadiene         | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| 2-Hexanone                  | ND         | 10  |                                |             |      |                                              |           |                    |          |      |
| Isopropylbenzene            | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| 4-Isopropyltoluene          | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| 4-Methyl-2-pentanone        | ND         | 10  |                                |             |      |                                              |           |                    |          |      |
| Methylene Chloride          | ND         | 3.0 |                                |             |      |                                              |           |                    |          |      |
| n-Butylbenzene              | ND         | 3.0 |                                |             |      |                                              |           |                    |          |      |
| n-Propylbenzene             | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| sec-Butylbenzene            | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| Styrene                     | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| tert-Butylbenzene           | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| 1,1,1,2-Tetrachloroethane   | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| 1,1,2,2-Tetrachloroethane   | ND         | 2.0 |                                |             |      |                                              |           |                    |          |      |
| Tetrachloroethene (PCE)     | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| trans-1,2-DCE               | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| trans-1,3-Dichloropropene   | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| 1,2,3-Trichlorobenzene      | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| 1,2,4-Trichlorobenzene      | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| 1,1,1-Trichloroethane       | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| 1,1,2-Trichloroethane       | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| Trichloroethene (TCE)       | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| Trichlorofluoromethane      | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| 1,2,3-Trichloropropane      | ND         | 2.0 |                                |             |      |                                              |           |                    |          |      |
| Vinyl chloride              | ND         | 1.0 |                                |             |      |                                              |           |                    |          |      |
| Xylenes, Total              | ND         | 1.5 |                                |             |      |                                              |           |                    |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.8        |     | 10.00                          |             | 97.8 | 70                                           | 130       |                    |          |      |
| Surr: 4-Bromofluorobenzene  | 11         |     | 10.00                          |             | 108  | 70                                           | 130       |                    |          |      |
| Surr: Dibromofluoromethane  | 9.5        |     | 10.00                          |             | 95.5 | 70                                           | 130       |                    |          |      |
| Surr: Toluene-d8            | 10         |     | 10.00                          |             | 105  | 70                                           | 130       |                    |          |      |

|               |                  |     |                                |             |      |                                              |           |                    |          |      |
|---------------|------------------|-----|--------------------------------|-------------|------|----------------------------------------------|-----------|--------------------|----------|------|
| Sample ID     | <b>100ng lcs</b> |     | SampType: <b>LCS</b>           |             |      | TestCode: <b>EPA Method 8260B: VOLATILES</b> |           |                    |          |      |
| Client ID:    | <b>LCSW</b>      |     | Batch ID: <b>R27395</b>        |             |      | RunNo: <b>27395</b>                          |           |                    |          |      |
| Prep Date:    |                  |     | Analysis Date: <b>7/9/2015</b> |             |      | SeqNo: <b>821903</b>                         |           | Units: <b>µg/L</b> |          |      |
| Analyte       | Result           | PQL | SPK value                      | SPK Ref Val | %REC | LowLimit                                     | HighLimit | %RPD               | RPDLimit | Qual |
| Benzene       | 20               | 1.0 | 20.00                          | 0           | 100  | 70                                           | 130       |                    |          |      |
| Toluene       | 21               | 1.0 | 20.00                          | 0           | 106  | 70                                           | 130       |                    |          |      |
| Chlorobenzene | 20               | 1.0 | 20.00                          | 0           | 102  | 70                                           | 130       |                    |          |      |

### Qualifiers:

|   |                                                 |    |                                                    |
|---|-------------------------------------------------|----|----------------------------------------------------|
| * | Value exceeds Maximum Contaminant Level.        | B  | Analyte detected in the associated Method Blank    |
| E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits      | ND | Not Detected at the Reporting Limit                |
| O | RSD is greater than RSDlimit                    | P  | Sample pH Not In Range                             |
| R | RPD outside accepted recovery limits            | RL | Reporting Detection Limit                          |
| S | Spike Recovery outside accepted recovery limits |    |                                                    |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507158

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                             |           |     |           |                         |      |                                       |           |             |          |      |
|-----------------------------|-----------|-----|-----------|-------------------------|------|---------------------------------------|-----------|-------------|----------|------|
| Sample ID                   | 100ng lcs |     |           | SampType: LCS           |      | TestCode: EPA Method 8260B: VOLATILES |           |             |          |      |
| Client ID:                  | LCSW      |     |           | Batch ID: R27395        |      | RunNo: 27395                          |           |             |          |      |
| Prep Date:                  |           |     |           | Analysis Date: 7/9/2015 |      | SeqNo: 821903                         |           | Units: µg/L |          |      |
| Analyte                     | Result    | PQL | SPK value | SPK Ref Val             | %REC | LowLimit                              | HighLimit | %RPD        | RPDLimit | Qual |
| 1,1-Dichloroethene          | 23        | 1.0 | 20.00     | 0                       | 115  | 70                                    | 130       |             |          |      |
| Trichloroethene (TCE)       | 18        | 1.0 | 20.00     | 0                       | 89.2 | 70                                    | 130       |             |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.7       |     | 10.00     |                         | 97.4 | 70                                    | 130       |             |          |      |
| Surr: 4-Bromofluorobenzene  | 11        |     | 10.00     |                         | 108  | 70                                    | 130       |             |          |      |
| Surr: Dibromofluoromethane  | 9.3       |     | 10.00     |                         | 93.4 | 70                                    | 130       |             |          |      |
| Surr: Toluene-d8            | 10        |     | 10.00     |                         | 104  | 70                                    | 130       |             |          |      |

|                                |        |                         |           |             |                                       |          |             |      |          |      |
|--------------------------------|--------|-------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                      | rb7    | SampType: MBLK          |           |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                     | PBW    | Batch ID: R27395        |           |             | RunNo: 27395                          |          |             |      |          |      |
| Prep Date:                     |        | Analysis Date: 7/9/2015 |           |             | SeqNo: 821963                         |          | Units: µg/L |      |          |      |
| Analyte                        | Result | PQL                     | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Benzene                        | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Toluene                        | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Ethylbenzene                   | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| 1,2,4-Trimethylbenzene         | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| 1,3,5-Trimethylbenzene         | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Naphthalene                    | ND     | 2.0                     |           |             |                                       |          |             |      |          |      |
| 1-Methylnaphthalene            | ND     | 4.0                     |           |             |                                       |          |             |      |          |      |
| 2-Methylnaphthalene            | ND     | 4.0                     |           |             |                                       |          |             |      |          |      |
| Acetone                        | ND     | 10                      |           |             |                                       |          |             |      |          |      |
| Bromobenzene                   | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Bromodichloromethane           | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Bromoform                      | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Bromomethane                   | ND     | 3.0                     |           |             |                                       |          |             |      |          |      |
| 2-Butanone                     | ND     | 10                      |           |             |                                       |          |             |      |          |      |
| Carbon disulfide               | ND     | 10                      |           |             |                                       |          |             |      |          |      |
| Carbon Tetrachloride           | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Chlorobenzene                  | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Chloroethane                   | ND     | 2.0                     |           |             |                                       |          |             |      |          |      |
| Chloroform                     | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| Chloromethane                  | ND     | 3.0                     |           |             |                                       |          |             |      |          |      |
| 2-Chlorotoluene                | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| 4-Chlorotoluene                | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| cis-1,2-DCE                    | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |
| cis-1,3-Dichloropropene        | ND     | 1.0                     |           |             |                                       |          |             |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507158

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                             |        |                |           |             |                             |          |           |      |          |      |
|-----------------------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID                   | rb7    | SampType:      | MBLK      | TestCode:   | EPA Method 8260B: VOLATILES |          |           |      |          |      |
| Client ID:                  | PBW    | Batch ID:      | R27395    | RunNo:      | 27395                       |          |           |      |          |      |
| Prep Date:                  |        | Analysis Date: | 7/9/2015  | SeqNo:      | 821963                      | Units:   | µg/L      |      |          |      |
| Analyte                     | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| 1,2-Dibromo-3-chloropropane | ND     | 2.0            |           |             |                             |          |           |      |          |      |
| Dibromochloromethane        | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Dibromomethane              | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2-Dichlorobenzene         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,3-Dichlorobenzene         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,4-Dichlorobenzene         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Dichlorodifluoromethane     | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1-Dichloroethane          | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1-Dichloroethene          | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2-Dichloropropane         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,3-Dichloropropane         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 2,2-Dichloropropane         | ND     | 2.0            |           |             |                             |          |           |      |          |      |
| 1,1-Dichloropropene         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Hexachlorobutadiene         | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 2-Hexanone                  | ND     | 10             |           |             |                             |          |           |      |          |      |
| Isopropylbenzene            | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 4-Isopropyltoluene          | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 4-Methyl-2-pentanone        | ND     | 10             |           |             |                             |          |           |      |          |      |
| Methylene Chloride          | ND     | 3.0            |           |             |                             |          |           |      |          |      |
| n-Butylbenzene              | ND     | 3.0            |           |             |                             |          |           |      |          |      |
| n-Propylbenzene             | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| sec-Butylbenzene            | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Styrene                     | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| tert-Butylbenzene           | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND     | 2.0            |           |             |                             |          |           |      |          |      |
| Tetrachloroethene (PCE)     | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| trans-1,2-DCE               | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| trans-1,3-Dichloropropene   | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2,3-Trichlorobenzene      | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2,4-Trichlorobenzene      | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1,1-Trichloroethane       | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1,2-Trichloroethane       | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Trichloroethene (TCE)       | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Trichlorofluoromethane      | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2,3-Trichloropropane      | ND     | 2.0            |           |             |                             |          |           |      |          |      |
| Vinyl chloride              | ND     | 1.0            |           |             |                             |          |           |      |          |      |
| Xylenes, Total              | ND     | 1.5            |           |             |                             |          |           |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.9    |                | 10.00     |             | 98.9                        | 70       | 130       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507158

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                            |        |                                |           |             |                                              |          |                    |      |          |      |
|----------------------------|--------|--------------------------------|-----------|-------------|----------------------------------------------|----------|--------------------|------|----------|------|
| Sample ID <b>rb7</b>       |        | SampType: <b>MBLK</b>          |           |             | TestCode: <b>EPA Method 8260B: VOLATILES</b> |          |                    |      |          |      |
| Client ID: <b>PBW</b>      |        | Batch ID: <b>R27395</b>        |           |             | RunNo: <b>27395</b>                          |          |                    |      |          |      |
| Prep Date:                 |        | Analysis Date: <b>7/9/2015</b> |           |             | SeqNo: <b>821963</b>                         |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                    | Result | PQL                            | SPK value | SPK Ref Val | %REC                                         | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Surr: 4-Bromofluorobenzene | 11     |                                | 10.00     |             | 109                                          | 70       | 130                |      |          |      |
| Surr: Dibromofluoromethane | 9.7    |                                | 10.00     |             | 96.6                                         | 70       | 130                |      |          |      |
| Surr: Toluene-d8           | 11     |                                | 10.00     |             | 106                                          | 70       | 130                |      |          |      |

|                             |            |     |                         |             |                                       |          |             |      |          |      |
|-----------------------------|------------|-----|-------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | 100ng lcs2 |     | SampType: LCS           |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                  | LCSW       |     | Batch ID: R27395        |             | RunNo: 27395                          |          |             |      |          |      |
| Prep Date:                  |            |     | Analysis Date: 7/9/2015 |             | SeqNo: 821965                         |          | Units: µg/L |      |          |      |
| Analyte                     | Result     | PQL | SPK value               | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Benzene                     | 20         | 1.0 | 20.00                   | 0           | 101                                   | 70       | 130         |      |          |      |
| Toluene                     | 22         | 1.0 | 20.00                   | 0           | 108                                   | 70       | 130         |      |          |      |
| Chlorobenzene               | 20         | 1.0 | 20.00                   | 0           | 102                                   | 70       | 130         |      |          |      |
| 1,1-Dichloroethene          | 23         | 1.0 | 20.00                   | 0           | 117                                   | 70       | 130         |      |          |      |
| Trichloroethene (TCE)       | 19         | 1.0 | 20.00                   | 0           | 95.5                                  | 70       | 130         |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 10         |     | 10.00                   |             | 100                                   | 70       | 130         |      |          |      |
| Surr: 4-Bromofluorobenzene  | 11         |     | 10.00                   |             | 110                                   | 70       | 130         |      |          |      |
| Surr: Dibromofluoromethane  | 9.9        |     | 10.00                   |             | 99.0                                  | 70       | 130         |      |          |      |
| Surr: Toluene-d8            | 10         |     | 10.00                   |             | 103                                   | 70       | 130         |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507158

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                      |          |                         |           |                                 |      |             |           |      |          |      |
|----------------------|----------|-------------------------|-----------|---------------------------------|------|-------------|-----------|------|----------|------|
| Sample ID            | MB-20150 | SampType: MBLK          |           | TestCode: EPA Method 8310: PAHs |      |             |           |      |          |      |
| Client ID:           | PBW      | Batch ID: 20150         |           | RunNo: 27333                    |      |             |           |      |          |      |
| Prep Date:           | 7/8/2015 | Analysis Date: 7/8/2015 |           | SeqNo: 820082                   |      | Units: µg/L |           |      |          |      |
| Analyte              | Result   | PQL                     | SPK value | SPK Ref Val                     | %REC | LowLimit    | HighLimit | %RPD | RPDLimit | Qual |
| Naphthalene          | ND       | 2.0                     |           |                                 |      |             |           |      |          |      |
| 1-Methylnaphthalene  | ND       | 2.0                     |           |                                 |      |             |           |      |          |      |
| 2-Methylnaphthalene  | ND       | 2.0                     |           |                                 |      |             |           |      |          |      |
| Benzo(a)pyrene       | ND       | 0.070                   |           |                                 |      |             |           |      |          |      |
| Surr: Benzo(e)pyrene | 17       |                         | 20.00     |                                 | 82.6 | 37.2        | 136       |      |          |      |

|                      |           |       |                         |             |                                 |          |             |      |          |      |
|----------------------|-----------|-------|-------------------------|-------------|---------------------------------|----------|-------------|------|----------|------|
| Sample ID            | LCS-20150 |       | SampType: LCS           |             | TestCode: EPA Method 8310: PAHs |          |             |      |          |      |
| Client ID:           | LCSW      |       | Batch ID: 20150         |             | RunNo: 27333                    |          |             |      |          |      |
| Prep Date:           | 7/8/2015  |       | Analysis Date: 7/8/2015 |             | SeqNo: 820084                   |          | Units: µg/L |      |          |      |
| Analyte              | Result    | PQL   | SPK value               | SPK Ref Val | %REC                            | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Naphthalene          | 71        | 2.0   | 80.00                   | 0           | 89.3                            | 57.8     | 83.9        |      |          | S    |
| 1-Methylnaphthalene  | 75        | 2.0   | 80.20                   | 0           | 93.1                            | 43.5     | 88.5        |      |          | S    |
| 2-Methylnaphthalene  | 72        | 2.0   | 80.00                   | 0           | 90.5                            | 34.2     | 94.5        |      |          |      |
| Benzo(a)pyrene       | 0.45      | 0.070 | 0.5020                  | 0           | 89.6                            | 56.3     | 98.6        |      |          |      |
| Surr: Benzo(e)pyrene | 14        |       | 20.00                   |             | 70.7                            | 37.2     | 136         |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507158

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                              |          |     |                         |             |                                          |          |             |      |          |      |
|------------------------------|----------|-----|-------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                    | MB-20119 |     | SampType: MBLK          |             | TestCode: Total Phenolics by SW-846 9067 |          |             |      |          |      |
| Client ID:                   | PBW      |     | Batch ID: 20119         |             | RunNo: 27307                             |          |             |      |          |      |
| Prep Date:                   | 7/7/2015 |     | Analysis Date: 7/7/2015 |             | SeqNo: 818519                            |          | Units: µg/L |      |          |      |
| Analyte                      | Result   | PQL | SPK value               | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | ND       | 2.5 |                         |             |                                          |          |             |      |          |      |

|                              |           |     |                         |             |                                          |          |             |      |          |      |
|------------------------------|-----------|-----|-------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                    | LCS-20119 |     | SampType: LCS           |             | TestCode: Total Phenolics by SW-846 9067 |          |             |      |          |      |
| Client ID:                   | LCSW      |     | Batch ID: 20119         |             | RunNo: 27307                             |          |             |      |          |      |
| Prep Date:                   | 7/7/2015  |     | Analysis Date: 7/7/2015 |             | SeqNo: 818520                            |          | Units: µg/L |      |          |      |
| Analyte                      | Result    | PQL | SPK value               | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | 18        | 2.5 | 20.00                   | 0           | 92.4                                     | 64.4     | 135         |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507158

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|            |           |        |                |             |      |           |                                 |      |          |      |  |
|------------|-----------|--------|----------------|-------------|------|-----------|---------------------------------|------|----------|------|--|
| Sample ID  | MB-R27658 |        | SampType:      | MBLK        |      | TestCode: | EPA 335.4: Total Cyanide Subbed |      |          |      |  |
| Client ID: | PBW       |        | Batch ID:      | R27658      |      | RunNo:    | 27658                           |      |          |      |  |
| Prep Date: |           |        | Analysis Date: | 7/13/2015   |      | SeqNo:    | 830512                          |      | Units:   | mg/L |  |
| Analyte    | Result    | PQL    | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit | Qual |  |
| Cyanide    | ND        | 0.0100 |                |             |      |           |                                 |      |          |      |  |

|            |            |     |                          |             |                                           |          |             |      |          |      |
|------------|------------|-----|--------------------------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-R27658 |     | SampType: LCS            |             | TestCode: EPA 335.4: Total Cyanide Subbed |          |             |      |          |      |
| Client ID: | LCSW       |     | Batch ID: R27658         |             | RunNo: 27658                              |          |             |      |          |      |
| Prep Date: |            |     | Analysis Date: 7/13/2015 |             | SeqNo: 830513                             |          | Units: mg/L |      |          |      |
| Analyte    | Result     | PQL | SPK value                | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cyanide    | 0.512      |     | 0.5000                   | 0           | 102                                       | 90       | 110         |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507158

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|              |           |       |                          |             |                                                          |          |              |      |          |      |
|--------------|-----------|-------|--------------------------|-------------|----------------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID    | MB-R27658 |       | SampType: MBLK           |             | TestCode: EPA 903.1: Ra 226 and EPA 904.0: Ra 228-Subbed |          |              |      |          |      |
| Client ID:   | PBW       |       | Batch ID: R27658         |             | RunNo: 27658                                             |          |              |      |          |      |
| Prep Date:   |           |       | Analysis Date: 7/16/2015 |             | SeqNo: 830515                                            |          | Units: pCi/L |      |          |      |
| Analyte      | Result    | PQL   | SPK value                | SPK Ref Val | %REC                                                     | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Radium-226   | 0.294     | 0.541 |                          |             |                                                          |          |              |      |          |      |
| Radium-226 ± | 0.354     | 0.541 |                          |             |                                                          |          |              |      |          |      |
| Radium-228   | 0.523     | 0.758 |                          |             |                                                          |          |              |      |          |      |
| Radium-228 ± | 0.388     | 0.758 |                          |             |                                                          |          |              |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507158

22-Jul-15

Client: Navajo Refining Company

Project: Monthly RO Reject

|                        |          |      |                         |             |                                               |          |             |      |          |      |
|------------------------|----------|------|-------------------------|-------------|-----------------------------------------------|----------|-------------|------|----------|------|
| Sample ID              | MB-20140 |      | SampType: MBLK          |             | TestCode: SM2540C MOD: Total Dissolved Solids |          |             |      |          |      |
| Client ID:             | PBW      |      | Batch ID: 20140         |             | RunNo: 27385                                  |          |             |      |          |      |
| Prep Date:             | 7/7/2015 |      | Analysis Date: 7/9/2015 |             | SeqNo: 821530                                 |          | Units: mg/L |      |          |      |
| Analyte                | Result   | PQL  | SPK value               | SPK Ref Val | %REC                                          | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Total Dissolved Solids | ND       | 20.0 |                         |             |                                               |          |             |      |          |      |

|                        |           |      |                         |             |                                               |          |             |      |          |      |
|------------------------|-----------|------|-------------------------|-------------|-----------------------------------------------|----------|-------------|------|----------|------|
| Sample ID              | LCS-20140 |      | SampType: LCS           |             | TestCode: SM2540C MOD: Total Dissolved Solids |          |             |      |          |      |
| Client ID:             | LCSW      |      | Batch ID: 20140         |             | RunNo: 27385                                  |          |             |      |          |      |
| Prep Date:             | 7/7/2015  |      | Analysis Date: 7/9/2015 |             | SeqNo: 821531                                 |          | Units: mg/L |      |          |      |
| Analyte                | Result    | PQL  | SPK value               | SPK Ref Val | %REC                                          | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Total Dissolved Solids | 1020      | 20.0 | 1000                    | 0           | 102                                           | 80       | 120         |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# Sample Log-In Check List

Client Name: NAVAJO REFINING CO

Work Order Number: 1507158

RcptNo: 1

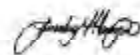
Received by/date:



02/03/15

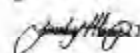
Logged By: Lindsay Mangin

7/3/2015 9:45:00 AM

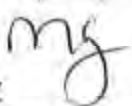


Completed By: Lindsay Mangin

7/6/2015 8:34:53 AM



Reviewed By:



07/06/15

## Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

## Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $\geq 0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved bottles checked for pH: 8  
( $\leq 2$  or  $\geq 12$  unless noted)

Adjusted?

Checked by: 

## Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

## 18. Cooler Information

| Cooler No | Temp $^{\circ}\text{C}$ | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|-------------------------|-----------|-------------|---------|-----------|-----------|
| 1         | 2.1                     | Good      | Yes         |         |           |           |

# Chain-of-Custody Record

Client: Navajo Refinery

Mailing Address: P.O. Box 159 Artesia,

NM 88211-0159

Phone #: 575-748-3311

email or Fax#: 575-746-5451

QA/QC Package:

☒ X Standard ☐ Level 4 (Full Validation)

☐ Other

☐ EDD (Type) \_\_\_\_\_

Turn-Around Time:

☒ X Standard ☐ Rush

Project Name:

Monthly R.O. Reject

Project #: P.O. # 167796

Project Manager:

Robert Combs

Sampler: Elizabeth Salsberry

On Ice: ☒ X Yes ☐ No

Sample Temperature: 29.4°C Z, 1

Date Time Matrix Sample Request ID

7-1-15 3:04pm liquid TEMPORARY R.O.

7-1-15 3:04pm *[Signature]*

7-1-15 3:04pm

7-1-15 3:04pm

7-1-15 3:04pm

7-1-15 3:04pm

7-1-15 3:04pm

7-1-15 3:04pm

7-1-15 3:04pm

7-1-15 3:04pm

7-1-15 3:04pm

Date Time Relinquished by: Elizabeth Salsberry

7-2-15 11am *[Signature]*

Date Time Relinquished by:

Container Type and #

2 - 500ml P

3-40ml VOA HCL

1-500ml P HNO3

1-125ml P HNO3

1-500ml P NaOH

2- 1L P HNO3

3-40ml VOA HCL

2 - 1L Glass unpres

1 - 1L Glass unpres

2-40ml VOA unpres

2-40ml VOA HCL

Preservative Type

1-unpres H2SO4

HCL

HNO3

HNO3

NaOH

HNO3

HCL

unpres

unpres

unpres

HCL

HEAL No.

1507158

-001

Received by: *[Signature]* Date Time

07/03/15 0945

Received by: Date Time



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

| 8260B: WQCC List VOCs | 8270C: WQCC list SVOCs | 6010B: WQCC Metals | 336.4: Total Cyanide | 7470: Mercury | 8015: GRC, DRO, ORO | 8082: PCBs | Radioactivity (Ra-226+Ra-228) | Sulfate | Chloride | Fluoride | Nitrate/Nitrite | Total Dissolved Solids |
|-----------------------|------------------------|--------------------|----------------------|---------------|---------------------|------------|-------------------------------|---------|----------|----------|-----------------|------------------------|
| X                     | X                      | X                  | X                    | X             | X                   | X          | X                             | X       | X        | X        | X               | X                      |

Remarks:

Metals: As, Al, Ba, B, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, U, Zn  
VOCs: 1,1,1-Trichloroethane; 1,1,2,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethylene; 1,1,2-Trichloroethane; 1,1,2-Trichloroethylene; 1,1-Dichloroethane; 1,1-Dichloroethene; 1,2-Dichloroethane; Benzene; Carbon Tetrachloride; Chloroform; Dichloromethane; Ethylbenzene; Toluene; Total Xylenes; Vinyl Chloride  
SVOCs: benz[a]pyrene, phenol, 1-methylnaphthalene, 2-methylnaphthalene, naphthalene



Navajo Refining Company, LLC  
501 E. Main  
Artesia, NM 88210  
(Tel) 575 748 3311  
(Fax) 575 746 5451

## Biannual RO Reject Sample Details Attachment



The HollyFrontier Companies

|                       |                         |
|-----------------------|-------------------------|
| Project Name:         | Biannual RO Reject      |
| Samplers Name:        | Elizabeth Salsberry     |
| Samplers Affiliation: | Navajo Refining Co. LLC |
| Start Date and Time:  | 7/1/2015 @ 3:02 pm      |
| End Date and Time:    | 7/1/2015 @ 3:11 pm      |

| Sample Type             | Grab                     | Composite                |
|-------------------------|--------------------------|--------------------------|
| Time Weighted Composite | <input type="checkbox"/> | <input type="checkbox"/> |
| Flow Weighted Composite | <input type="checkbox"/> | <input type="checkbox"/> |

Parts / Sample Intervals: One

| Physical Property                          |
|--------------------------------------------|
| Solid <input type="checkbox"/>             |
| Liquid <input checked="" type="checkbox"/> |
| Sludge <input type="checkbox"/>            |

Type of Sampler: Directly to sample jars

Outfall / Sample Location: ☐ North Field R.O. Reject Discharge ☒ South Field R.O. Reject Discharge

| Container | Size  | Material | # of Containers | Nocl (None) | HCL | HNO3 | H2SO4 | NaOH | Na2S2O3 | NaHSO4 | Other | Analysis and/or Method Requested  |
|-----------|-------|----------|-----------------|-------------|-----|------|-------|------|---------|--------|-------|-----------------------------------|
|           |       |          |                 |             |     |      |       |      |         |        |       |                                   |
| 1         | 500ml | Plastic  | 2               | X           |     |      | X     |      |         |        |       | pH, Cl, F, NO2/NO3, TDS, 8015 GRO |
| 2         | 40ml  | VOA      | 3               |             | X   |      |       |      |         |        |       | 6020 total metals, 7470 Hg        |
| 3         | 500ml | Plastic  | 1               |             |     | X    |       |      |         |        |       | 6020 Dissolved Metals             |
| 4         | 125ml | Plastic  | 1               |             |     | X    |       |      |         |        |       | Cyanide                           |
| 5         | 500ml | Plastic  | 2               |             |     |      |       | X    |         |        |       | Radium 226/228                    |
| 6         | 1L    | Plastic  | 3               |             |     | X    |       |      |         |        |       | 8280 see attached list            |
| 7         | 40ml  | VOA      | 2               |             | X   |      |       |      |         |        |       | 8270 see attached list            |
| 8         | 1L    | Glass    | 1               | X           |     |      |       |      |         |        |       | 8082 PCBs                         |
| 9         | 1L    | Glass    | 2               | X           |     |      |       |      |         |        |       | 8015 DRO                          |
| 10        | 40ml  | VOA      | 2               | X           |     |      |       |      |         |        |       | Radium 226/228                    |
| 11        | 40ml  | VOA      | 2               |             | X   |      |       |      |         |        |       |                                   |

Field Data (Weather, Observations, Etc): 7/1/2014 3:02 pm Temp: 93.2 °F Humidity: 25% Wind Dir: SE Wind Speed: 9.2 mph, Conditions: Clear

Date and Time: 7/1/2014 3:02 pm

Field Temp: 29.1 °C Field pH: 7.65

|                |                                         |
|----------------|-----------------------------------------|
| Storage Method | Ice <input checked="" type="checkbox"/> |
| Refrigerated   | <input type="checkbox"/>                |
| Other          | <input type="checkbox"/>                |

|                |                                         |
|----------------|-----------------------------------------|
| Shipping Media | Ice <input checked="" type="checkbox"/> |
| Other          | <input type="checkbox"/>                |



*Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)*

August 26, 2015

Robert Combs  
Navajo Refining Company  
P.O. Box 159  
Artesia, NM 88211-0159  
TEL: (575) 748-3311  
FAX

RE: Monthly Temporary R.O. Reject

OrderNo.: 1508063

Dear Robert Combs:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/4/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1508063

Date Reported: 8/26/2015

CLIENT: Navajo Refining Company

Client Sample ID: Temporary R.O. Reject

Project: Monthly Temporary R.O. Reject

Collection Date: 8/3/2015 9:30:00 AM

Lab ID: 1508063-001

Matrix: AQUEOUS

Received Date: 8/4/2015 9:13:00 AM

| Analyses                                              | Result | RL      | Qual | Units    | DF  | Date Analyzed        | Batch               |
|-------------------------------------------------------|--------|---------|------|----------|-----|----------------------|---------------------|
| <b>EPA 200.8: DISSOLVED METALS</b>                    |        |         |      |          |     |                      | Analyst: <b>DBD</b> |
| Arsenic                                               | ND     | 0.0050  |      | mg/L     | 5   | 8/12/2015 8:39:59 PM | D28151              |
| Copper                                                | 0.0037 | 0.0010  |      | mg/L     | 1   | 8/19/2015 1:30:00 PM | B28323              |
| Lead                                                  | ND     | 0.00050 |      | mg/L     | 1   | 8/12/2015 8:19:49 PM | D28151              |
| Selenium                                              | 0.0086 | 0.0050  |      | mg/L     | 5   | 8/12/2015 8:39:59 PM | D28151              |
| Uranium                                               | 0.0070 | 0.00050 |      | mg/L     | 1   | 8/12/2015 8:19:49 PM | D28151              |
| <b>EPA 903.1: RA 226 AND EPA 904.0: RA 228-SUBBED</b> |        |         |      |          |     |                      | Analyst: <b>SUB</b> |
| Radium-226                                            | 1.27   | 0.620   |      | pCi/L    | 1   | 8/18/2015            | R28452              |
| Radium-226 ±                                          | 0.644  | 0.620   |      | pCi/L    | 1   | 8/18/2015            | R28452              |
| Radium-228                                            | 0.571  | 0.712   |      | pCi/L    | 1   | 8/18/2015            | R28452              |
| Radium-228 ±                                          | 0.375  | 0.712   |      | pCi/L    | 1   | 8/18/2015            | R28452              |
| <b>EPA METHOD 300.0: ANIONS</b>                       |        |         |      |          |     |                      | Analyst: <b>LGT</b> |
| Fluoride                                              | 3.6    | 0.10    |      | mg/L     | 1   | 8/4/2015 2:39:23 PM  | R27968              |
| Chloride                                              | 320    | 10      |      | mg/L     | 20  | 8/4/2015 3:16:37 PM  | R27968              |
| Sulfate                                               | 1900   | 50      |      | mg/L     | 100 | 8/14/2015 3:34:40 AM | R28192              |
| Nitrate+Nitrite as N                                  | 1.7    | 1.0     |      | mg/L     | 5   | 8/14/2015 4:24:18 AM | R28192              |
| <b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>            |        |         |      |          |     |                      | Analyst: <b>KS</b>  |
| Total Dissolved Solids                                | 4000   | 20.0    | *    | mg/L     | 1   | 8/6/2015 5:55:00 PM  | 20614               |
| <b>EPA 335.4: TOTAL CYANIDE SUBBED</b>                |        |         |      |          |     |                      | Analyst: <b>SUB</b> |
| Cyanide                                               | ND     | 0.0100  |      | mg/L     | 1   | 8/12/2015            | R28452              |
| <b>SM4500-H+B: PH</b>                                 |        |         |      |          |     |                      | Analyst: <b>JRR</b> |
| pH                                                    | 8.04   | 1.68    | H    | pH units | 1   | 8/6/2015 8:07:28 PM  | R28029              |
| <b>EPA METHOD 200.7: DISSOLVED METALS</b>             |        |         |      |          |     |                      | Analyst: <b>ELS</b> |
| Aluminum                                              | ND     | 0.020   |      | mg/L     | 1   | 8/5/2015 9:48:22 PM  | R27986              |
| Barium                                                | 0.076  | 0.0020  |      | mg/L     | 1   | 8/5/2015 9:48:22 PM  | R27986              |
| Boron                                                 | 0.093  | 0.040   |      | mg/L     | 1   | 8/5/2015 9:48:22 PM  | R27986              |
| Cadmium                                               | ND     | 0.0020  |      | mg/L     | 1   | 8/5/2015 9:48:22 PM  | R27986              |
| Chromium                                              | ND     | 0.0060  |      | mg/L     | 1   | 8/5/2015 9:48:22 PM  | R27986              |
| Cobalt                                                | ND     | 0.0060  |      | mg/L     | 1   | 8/5/2015 9:48:22 PM  | R27986              |
| Iron                                                  | ND     | 0.020   |      | mg/L     | 1   | 8/7/2015 2:05:37 PM  | R28044              |
| Manganese                                             | 0.0094 | 0.0020  |      | mg/L     | 1   | 8/5/2015 9:48:22 PM  | R27986              |
| Molybdenum                                            | 0.0082 | 0.0080  |      | mg/L     | 1   | 8/5/2015 9:48:22 PM  | R27986              |
| Nickel                                                | ND     | 0.010   |      | mg/L     | 1   | 8/5/2015 9:48:22 PM  | R27986              |
| Silver                                                | ND     | 0.0050  |      | mg/L     | 1   | 8/5/2015 9:48:22 PM  | R27986              |
| Zinc                                                  | 0.053  | 0.010   |      | mg/L     | 1   | 8/6/2015 3:42:35 PM  | C28013              |
| <b>EPA METHOD 245.1: MERCURY</b>                      |        |         |      |          |     |                      | Analyst: <b>JLF</b> |
| Mercury                                               | ND     | 0.00020 |      | mg/L     | 1   | 8/7/2015 2:01:54 PM  | 20665               |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                         |                                                   |
|--------------------|---------------------------------------------------------|---------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
|                    | D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
|                    | H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
|                    | ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
|                    | R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
|                    | S % Recovery outside of range due to dilution or matrix |                                                   |

## Analytical Report

Lab Order 1508063

Date Reported: 8/26/2015

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Navajo Refining Company

Client Sample ID: Temporary R.O. Reject

Project: Monthly Temporary R.O. Reject

Collection Date: 8/3/2015 9:30:00 AM

Lab ID: 1508063-001

Matrix: AQUEOUS

Received Date: 8/4/2015 9:13:00 AM

| Analyses                                | Result | RL        | Qual | Units | DF | Date Analyzed        | Batch        |
|-----------------------------------------|--------|-----------|------|-------|----|----------------------|--------------|
| <b>EPA METHOD 8015D: GASOLINE RANGE</b> |        |           |      |       |    |                      | Analyst: DJF |
| Gasoline Range Organics (GRO)           | ND     | 0.050     |      | mg/L  | 1  | 8/4/2015 8:14:29 PM  | R27954       |
| Surr: BFB                               | 99.9   | 70-130    |      | %REC  | 1  | 8/4/2015 8:14:29 PM  | R27954       |
| <b>EPA METHOD 8011/504.1: EDB</b>       |        |           |      |       |    |                      | Analyst: JME |
| 1,2-Dibromoethane                       | ND     | 0.010     |      | µg/L  | 1  | 8/7/2015 12:08:21 PM | 20627        |
| <b>EPA METHOD 8082: PCB'S</b>           |        |           |      |       |    |                      | Analyst: SCC |
| Aroclor 1016                            | ND     | 1.0       |      | µg/L  | 1  | 8/10/2015 9:50:46 AM | 20661        |
| Aroclor 1221                            | ND     | 1.0       |      | µg/L  | 1  | 8/10/2015 9:50:46 AM | 20661        |
| Aroclor 1232                            | ND     | 1.0       |      | µg/L  | 1  | 8/10/2015 9:50:46 AM | 20661        |
| Aroclor 1242                            | ND     | 1.0       |      | µg/L  | 1  | 8/10/2015 9:50:46 AM | 20661        |
| Aroclor 1248                            | ND     | 1.0       |      | µg/L  | 1  | 8/10/2015 9:50:46 AM | 20661        |
| Aroclor 1254                            | ND     | 1.0       |      | µg/L  | 1  | 8/10/2015 9:50:46 AM | 20661        |
| Aroclor 1260                            | ND     | 1.0       |      | µg/L  | 1  | 8/10/2015 9:50:46 AM | 20661        |
| Surr: Decachlorobiphenyl                | 92.0   | 44.5-110  |      | %REC  | 1  | 8/10/2015 9:50:46 AM | 20661        |
| Surr: Tetrachloro-m-xylene              | 113    | 31.8-95.7 | S    | %REC  | 1  | 8/10/2015 9:50:46 AM | 20661        |
| <b>EPA METHOD 8015M/D: DIESEL RANGE</b> |        |           |      |       |    |                      | Analyst: KJH |
| Diesel Range Organics (DRO)             | ND     | 1.0       |      | mg/L  | 1  | 8/5/2015 10:39:12 PM | 20617        |
| Motor Oil Range Organics (MRO)          | ND     | 5.0       |      | mg/L  | 1  | 8/5/2015 10:39:12 PM | 20617        |
| Surr: DNOP                              | 98.5   | 72-136    |      | %REC  | 1  | 8/5/2015 10:39:12 PM | 20617        |
| <b>EPA METHOD 8310: PAHS</b>            |        |           |      |       |    |                      | Analyst: SCC |
| Naphthalene                             | ND     | 2.0       |      | µg/L  | 1  | 8/10/2015 9:22:01 AM | 20677        |
| 1-Methylnaphthalene                     | ND     | 2.0       |      | µg/L  | 1  | 8/10/2015 9:22:01 AM | 20677        |
| 2-Methylnaphthalene                     | ND     | 2.0       |      | µg/L  | 1  | 8/10/2015 9:22:01 AM | 20677        |
| Benzo(a)pyrene                          | ND     | 0.070     |      | µg/L  | 1  | 8/10/2015 9:22:01 AM | 20677        |
| Surr: Benzo(e)pyrene                    | 48.7   | 37.2-136  |      | %REC  | 1  | 8/10/2015 9:22:01 AM | 20677        |
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |           |      |       |    |                      | Analyst: BCN |
| Benzene                                 | ND     | 1.0       |      | µg/L  | 1  | 8/4/2015 5:33:38 PM  | R27952       |
| Toluene                                 | ND     | 1.0       |      | µg/L  | 1  | 8/4/2015 5:33:38 PM  | R27952       |
| Ethylbenzene                            | ND     | 1.0       |      | µg/L  | 1  | 8/4/2015 5:33:38 PM  | R27952       |
| 1,2-Dichloroethane (EDC)                | ND     | 1.0       |      | µg/L  | 1  | 8/4/2015 5:33:38 PM  | R27952       |
| 1,2-Dibromoethane (EDB)                 | ND     | 1.0       |      | µg/L  | 1  | 8/4/2015 5:33:38 PM  | R27952       |
| Carbon Tetrachloride                    | ND     | 1.0       |      | µg/L  | 1  | 8/4/2015 5:33:38 PM  | R27952       |
| Chloroform                              | ND     | 1.0       |      | µg/L  | 1  | 8/4/2015 5:33:38 PM  | R27952       |
| 1,1-Dichloroethane                      | ND     | 1.0       |      | µg/L  | 1  | 8/4/2015 5:33:38 PM  | R27952       |
| 1,1-Dichloroethene                      | ND     | 1.0       |      | µg/L  | 1  | 8/4/2015 5:33:38 PM  | R27952       |
| Methylene Chloride                      | ND     | 3.0       |      | µg/L  | 1  | 8/4/2015 5:33:38 PM  | R27952       |
| 1,1,2,2-Tetrachloroethane               | ND     | 2.0       |      | µg/L  | 1  | 8/4/2015 5:33:38 PM  | R27952       |
| Tetrachloroethene (PCE)                 | ND     | 1.0       |      | µg/L  | 1  | 8/4/2015 5:33:38 PM  | R27952       |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                         |                                                   |
|--------------------|---------------------------------------------------------|---------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
|                    | D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
|                    | H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
|                    | ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
|                    | R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
|                    | S % Recovery outside of range due to dilution or matrix |                                                   |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1508063

Date Reported: 8/26/2015

CLIENT: Navajo Refining Company

Client Sample ID: Temporary R.O. Reject

Project: Monthly Temporary R.O. Reject

Collection Date: 8/3/2015 9:30:00 AM

Lab ID: 1508063-001

Matrix: AQUEOUS

Received Date: 8/4/2015 9:13:00 AM

| Analyses                              | Result | RL     | Qual | Units | DF | Date Analyzed       | Batch               |
|---------------------------------------|--------|--------|------|-------|----|---------------------|---------------------|
| <b>EPA METHOD 8260B: VOLATILES</b>    |        |        |      |       |    |                     | Analyst: <b>BCN</b> |
| 1,1,1-Trichloroethane                 | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 5:33:38 PM | R27952              |
| 1,1,2-Trichloroethane                 | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 5:33:38 PM | R27952              |
| Trichloroethene (TCE)                 | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 5:33:38 PM | R27952              |
| Vinyl chloride                        | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 5:33:38 PM | R27952              |
| Xylenes, Total                        | ND     | 1.5    |      | µg/L  | 1  | 8/4/2015 5:33:38 PM | R27952              |
| Surr: 1,2-Dichloroethane-d4           | 100    | 70-130 |      | %REC  | 1  | 8/4/2015 5:33:38 PM | R27952              |
| Surr: 4-Bromofluorobenzene            | 104    | 70-130 |      | %REC  | 1  | 8/4/2015 5:33:38 PM | R27952              |
| Surr: Dibromofluoromethane            | 98.4   | 70-130 |      | %REC  | 1  | 8/4/2015 5:33:38 PM | R27952              |
| Surr: Toluene-d8                      | 90.6   | 70-130 |      | %REC  | 1  | 8/4/2015 5:33:38 PM | R27952              |
| <b>TOTAL PHENOLICS BY SW-846 9067</b> |        |        |      |       |    |                     | Analyst: <b>SCC</b> |
| Phenolics, Total Recoverable          | ND     | 2.5    |      | µg/L  | 1  | 8/6/2015            | 20629               |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |    |                                                       |    |                                                 |
|-------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| Qualifiers: | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|             | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|             | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|             | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|             | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|             | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1508063

Date Reported: 8/26/2015

CLIENT: Navajo Refining Company

Client Sample ID: Trip Blank

Project: Monthly Temporary R.O. Reject

Collection Date:

Lab ID: 1508063-002

Matrix: TRIP BLANK

Received Date: 8/4/2015 9:13:00 AM

| Analyses                                | Result | RL     | Qual | Units | DF | Date Analyzed       | Batch        |
|-----------------------------------------|--------|--------|------|-------|----|---------------------|--------------|
| <b>EPA METHOD 8015D: GASOLINE RANGE</b> |        |        |      |       |    |                     | Analyst: DJF |
| Gasoline Range Organics (GRO)           | ND     | 0.050  |      | mg/L  | 1  | 8/4/2015 8:42:06 PM | R27954       |
| Surr: BFB                               | 99.0   | 70-130 |      | %REC  | 1  | 8/4/2015 8:42:06 PM | R27954       |
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |        |      |       |    |                     | Analyst: BCN |
| Benzene                                 | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Toluene                                 | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Ethylbenzene                            | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Methyl tert-butyl ether (MTBE)          | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,2,4-Trimethylbenzene                  | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,3,5-Trimethylbenzene                  | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,2-Dichloroethane (EDC)                | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,2-Dibromoethane (EDB)                 | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Naphthalene                             | ND     | 2.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1-Methylnaphthalene                     | ND     | 4.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 2-Methylnaphthalene                     | ND     | 4.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Acetone                                 | ND     | 10     |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Bromobenzene                            | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Bromodichloromethane                    | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Bromoform                               | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Bromomethane                            | ND     | 3.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 2-Butanone                              | ND     | 10     |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Carbon disulfide                        | ND     | 10     |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Carbon Tetrachloride                    | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Chlorobenzene                           | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Chloroethane                            | ND     | 2.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Chloroform                              | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Chloromethane                           | ND     | 3.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 2-Chlorotoluene                         | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 4-Chlorotoluene                         | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| cis-1,2-DCE                             | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| cis-1,3-Dichloropropene                 | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,2-Dibromo-3-chloropropane             | ND     | 2.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Dibromochloromethane                    | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Dibromomethane                          | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,2-Dichlorobenzene                     | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,3-Dichlorobenzene                     | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,4-Dichlorobenzene                     | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Dichlorodifluoromethane                 | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,1-Dichloroethane                      | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,1-Dichloroethene                      | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |                                                         |                                                   |
|-------------|---------------------------------------------------------|---------------------------------------------------|
| Qualifiers: | * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
|             | D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
|             | H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
|             | ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
|             | R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
|             | S % Recovery outside of range due to dilution or matrix |                                                   |

## Analytical Report

Lab Order 1508063

Date Reported: 8/26/2015

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Navajo Refining Company

Client Sample ID: Trip Blank

Project: Monthly Temporary R.O. Reject

Collection Date:

Lab ID: 1508063-002

Matrix: TRIP BLANK

Received Date: 8/4/2015 9:13:00 AM

| Analyses                           | Result | RL     | Qual | Units | DF | Date Analyzed       | Batch        |
|------------------------------------|--------|--------|------|-------|----|---------------------|--------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |        |      |       |    |                     | Analyst: BCN |
| 1,2-Dichloropropane                | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,3-Dichloropropane                | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 2,2-Dichloropropane                | ND     | 2.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,1-Dichloropropene                | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Hexachlorobutadiene                | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 2-Hexanone                         | ND     | 10     |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Isopropylbenzene                   | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 4-Isopropyltoluene                 | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 4-Methyl-2-pentanone               | ND     | 10     |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Methylene Chloride                 | ND     | 3.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| n-Butylbenzene                     | ND     | 3.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| n-Propylbenzene                    | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| sec-Butylbenzene                   | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Styrene                            | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| tert-Butylbenzene                  | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,1,1,2-Tetrachloroethane          | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,1,2,2-Tetrachloroethane          | ND     | 2.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Tetrachloroethene (PCE)            | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| trans-1,2-DCE                      | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| trans-1,3-Dichloropropene          | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,2,3-Trichlorobenzene             | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,2,4-Trichlorobenzene             | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,1,1-Trichloroethane              | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,1,2-Trichloroethane              | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Trichloroethene (TCE)              | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Trichlorofluoromethane             | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| 1,2,3-Trichloropropane             | ND     | 2.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Vinyl chloride                     | ND     | 1.0    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Xylenes, Total                     | ND     | 1.5    |      | µg/L  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Surr: 1,2-Dichloroethane-d4        | 97.6   | 70-130 |      | %REC  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Surr: 4-Bromofluorobenzene         | 98.2   | 70-130 |      | %REC  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Surr: Dibromofluoromethane         | 95.9   | 70-130 |      | %REC  | 1  | 8/4/2015 6:02:20 PM | R27952       |
| Surr: Toluene-d8                   | 89.0   | 70-130 |      | %REC  | 1  | 8/4/2015 6:02:20 PM | R27952       |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |                                                         |                                                   |
|-------------|---------------------------------------------------------|---------------------------------------------------|
| Qualifiers: | * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
|             | D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
|             | H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
|             | ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
|             | R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
|             | S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company  
Project: Monthly Temporary R.O. Reject

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R27986    | RunNo:      | 27986                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/5/2015  | SeqNo:      | 842241                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum   | ND     | 0.020          |           |             |                                    |          |           |      |          |      |
| Barium     | ND     | 0.0020         |           |             |                                    |          |           |      |          |      |
| Boron      | ND     | 0.040          |           |             |                                    |          |           |      |          |      |
| Cadmium    | ND     | 0.0020         |           |             |                                    |          |           |      |          |      |
| Chromium   | ND     | 0.0060         |           |             |                                    |          |           |      |          |      |
| Cobalt     | ND     | 0.0060         |           |             |                                    |          |           |      |          |      |
| Manganese  | ND     | 0.0020         |           |             |                                    |          |           |      |          |      |
| Molybdenum | ND     | 0.0080         |           |             |                                    |          |           |      |          |      |
| Nickel     | ND     | 0.010          |           |             |                                    |          |           |      |          |      |
| Silver     | ND     | 0.0050         |           |             |                                    |          |           |      |          |      |

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | R27986    | RunNo:      | 27986                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/5/2015  | SeqNo:      | 842242                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum   | 0.52   | 0.020          | 0.5000    | 0           | 104                                | 85       | 115       |      |          |      |
| Barium     | 0.49   | 0.0020         | 0.5000    | 0           | 98.4                               | 85       | 115       |      |          |      |
| Boron      | 0.51   | 0.040          | 0.5000    | 0           | 102                                | 85       | 115       |      |          |      |
| Cadmium    | 0.49   | 0.0020         | 0.5000    | 0           | 98.2                               | 85       | 115       |      |          |      |
| Chromium   | 0.49   | 0.0060         | 0.5000    | 0           | 98.1                               | 85       | 115       |      |          |      |
| Cobalt     | 0.47   | 0.0060         | 0.5000    | 0           | 93.6                               | 85       | 115       |      |          |      |
| Manganese  | 0.48   | 0.0020         | 0.5000    | 0           | 95.6                               | 85       | 115       |      |          |      |
| Molybdenum | 0.51   | 0.0080         | 0.5000    | 0           | 102                                | 85       | 115       |      |          |      |
| Nickel     | 0.47   | 0.010          | 0.5000    | 0           | 94.3                               | 85       | 115       |      |          |      |
| Silver     | 0.10   | 0.0050         | 0.1000    | 0           | 99.7                               | 85       | 115       |      |          |      |

|            |         |                |           |             |                                    |          |           |      |          |      |
|------------|---------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LLCS    | SampType:      | LCSLL     | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | BatchQC | Batch ID:      | R27986    | RunNo:      | 27986                              |          |           |      |          |      |
| Prep Date: |         | Analysis Date: | 8/5/2015  | SeqNo:      | 842243                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum   | ND      | 0.020          | 0.01000   | 0           | 115                                | 50       | 150       |      |          |      |
| Barium     | ND      | 0.0020         | 0.002000  | 0           | 85.0                               | 50       | 150       |      |          |      |
| Boron      | ND      | 0.040          | 0.04000   | 0           | 97.3                               | 50       | 150       |      |          |      |
| Cadmium    | ND      | 0.0020         | 0.002000  | 0           | 95.5                               | 50       | 150       |      |          |      |
| Chromium   | 0.0062  | 0.0060         | 0.006000  | 0           | 104                                | 50       | 150       |      |          |      |
| Cobalt     | ND      | 0.0060         | 0.006000  | 0           | 99.3                               | 50       | 150       |      |          |      |
| Manganese  | 0.0026  | 0.0020         | 0.002000  | 0           | 131                                | 50       | 150       |      |          |      |
| Molybdenum | 0.0087  | 0.0080         | 0.008000  | 0           | 109                                | 50       | 150       |      |          |      |

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company  
Project: Monthly Temporary R.O. Reject

|            |         |                |           |             |                                    |          |           |      |          |      |  |
|------------|---------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|--|
| Sample ID  | LLLCS   | SampType:      | LCSLL     | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |  |
| Client ID: | BatchQC | Batch ID:      | R27986    | RunNo:      | 27986                              |          |           |      |          |      |  |
| Prep Date: |         | Analysis Date: | 8/5/2015  | SeqNo:      | 842243                             | Units:   | mg/L      |      |          |      |  |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |  |
| Nickel     | ND      | 0.010          | 0.005000  | 0           | 93.4                               | 50       | 150       |      |          |      |  |
| Silver     | ND      | 0.0050         | 0.005000  | 0           | 93.8                               | 50       | 150       |      |          |      |  |

|            |        |                |           |             |                                    |          |           |      |          |      |  |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|--|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |  |
| Client ID: | PBW    | Batch ID:      | R27986    | RunNo:      | 27986                              |          |           |      |          |      |  |
| Prep Date: |        | Analysis Date: | 8/5/2015  | SeqNo:      | 842244                             | Units:   | mg/L      |      |          |      |  |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |  |
| Aluminum   | ND     | 0.020          |           |             |                                    |          |           |      |          |      |  |
| Barium     | ND     | 0.0020         |           |             |                                    |          |           |      |          |      |  |
| Boron      | ND     | 0.040          |           |             |                                    |          |           |      |          |      |  |
| Cadmium    | ND     | 0.0020         |           |             |                                    |          |           |      |          |      |  |
| Chromium   | ND     | 0.0060         |           |             |                                    |          |           |      |          |      |  |
| Cobalt     | ND     | 0.0060         |           |             |                                    |          |           |      |          |      |  |
| Manganese  | ND     | 0.0020         |           |             |                                    |          |           |      |          |      |  |
| Molybdenum | ND     | 0.0080         |           |             |                                    |          |           |      |          |      |  |
| Nickel     | ND     | 0.010          |           |             |                                    |          |           |      |          |      |  |
| Silver     | ND     | 0.0050         |           |             |                                    |          |           |      |          |      |  |

|            |        |                |           |             |                                    |          |           |      |          |      |  |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|--|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |  |
| Client ID: | LCSW   | Batch ID:      | R27986    | RunNo:      | 27986                              |          |           |      |          |      |  |
| Prep Date: |        | Analysis Date: | 8/5/2015  | SeqNo:      | 842245                             | Units:   | mg/L      |      |          |      |  |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |  |
| Aluminum   | 0.52   | 0.020          | 0.5000    | 0           | 103                                | 85       | 115       |      |          |      |  |
| Barium     | 0.50   | 0.0020         | 0.5000    | 0           | 99.0                               | 85       | 115       |      |          |      |  |
| Boron      | 0.51   | 0.040          | 0.5000    | 0           | 103                                | 85       | 115       |      |          |      |  |
| Cadmium    | 0.50   | 0.0020         | 0.5000    | 0           | 99.2                               | 85       | 115       |      |          |      |  |
| Chromium   | 0.49   | 0.0060         | 0.5000    | 0           | 98.2                               | 85       | 115       |      |          |      |  |
| Cobalt     | 0.47   | 0.0060         | 0.5000    | 0           | 94.6                               | 85       | 115       |      |          |      |  |
| Manganese  | 0.48   | 0.0020         | 0.5000    | 0           | 96.3                               | 85       | 115       |      |          |      |  |
| Molybdenum | 0.51   | 0.0080         | 0.5000    | 0           | 103                                | 85       | 115       |      |          |      |  |
| Nickel     | 0.47   | 0.010          | 0.5000    | 0           | 94.8                               | 85       | 115       |      |          |      |  |
| Silver     | 0.10   | 0.0050         | 0.1000    | 0           | 100                                | 85       | 115       |      |          |      |  |

|            |         |                |           |             |                                    |          |           |      |          |      |  |
|------------|---------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|--|
| Sample ID  | LLLCS   | SampType:      | LCSLL     | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |  |
| Client ID: | BatchQC | Batch ID:      | R27986    | RunNo:      | 27986                              |          |           |      |          |      |  |
| Prep Date: |         | Analysis Date: | 8/5/2015  | SeqNo:      | 842246                             | Units:   | mg/L      |      |          |      |  |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |  |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company  
Project: Monthly Temporary R.O. Reject

|            |         |                |           |             |                                    |          |           |      |          |      |
|------------|---------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LLLCS   | SampType:      | LCSLL     | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | BatchQC | Batch ID:      | R27986    | RunNo:      | 27986                              |          |           |      |          |      |
| Prep Date: |         | Analysis Date: | 8/5/2015  | SeqNo:      | 842246                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum   | ND      | 0.020          | 0.01000   | 0           | 112                                | 50       | 150       |      |          |      |
| Barium     | ND      | 0.0020         | 0.002000  | 0           | 98.5                               | 50       | 150       |      |          |      |
| Boron      | ND      | 0.040          | 0.04000   | 0           | 99.7                               | 50       | 150       |      |          |      |
| Cadmium    | ND      | 0.0020         | 0.002000  | 0           | 77.5                               | 50       | 150       |      |          |      |
| Chromium   | 0.0062  | 0.0060         | 0.006000  | 0           | 103                                | 50       | 150       |      |          |      |
| Cobalt     | ND      | 0.0060         | 0.006000  | 0           | 99.8                               | 50       | 150       |      |          |      |
| Manganese  | 0.0021  | 0.0020         | 0.002000  | 0           | 104                                | 50       | 150       |      |          |      |
| Molybdenum | 0.0093  | 0.0080         | 0.008000  | 0           | 116                                | 50       | 150       |      |          |      |
| Nickel     | ND      | 0.010          | 0.005000  | 0           | 97.4                               | 50       | 150       |      |          |      |
| Silver     | ND      | 0.0050         | 0.005000  | 0           | 95.4                               | 50       | 150       |      |          |      |

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | C28013    | RunNo:      | 28013                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/6/2015  | SeqNo:      | 843253                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Zinc       | ND     | 0.010          |           |             |                                    |          |           |      |          |      |

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | C28013    | RunNo:      | 28013                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/6/2015  | SeqNo:      | 843254                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Zinc       | 0.50   | 0.010          | 0.5000    | 0           | 101                                | 85       | 115       |      |          |      |

|            |         |                |           |             |                                    |          |           |      |          |      |
|------------|---------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LLLCS   | SampType:      | LCSLL     | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | BatchQC | Batch ID:      | C28013    | RunNo:      | 28013                              |          |           |      |          |      |
| Prep Date: |         | Analysis Date: | 8/6/2015  | SeqNo:      | 843255                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Zinc       | ND      | 0.010          | 0.005000  | 0           | 128                                | 50       | 150       |      |          |      |

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R28044    | RunNo:      | 28044                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/7/2015  | SeqNo:      | 844435                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Iron       | ND     | 0.020          |           |             |                                    |          |           |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company  
Project: Monthly Temporary R.O. Reject

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | R28044    | RunNo:      | 28044                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/7/2015  | SeqNo:      | 844436                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Iron       | 0.51   | 0.020          | 0.5000    | 0           | 102                                | 85       | 115       |      |          |      |

|            |         |                |           |             |                                    |          |           |      |          |      |
|------------|---------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LLCS    | SampType:      | LCSLL     | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | BatchQC | Batch ID:      | R28044    | RunNo:      | 28044                              |          |           |      |          |      |
| Prep Date: |         | Analysis Date: | 8/7/2015  | SeqNo:      | 844437                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Iron       | 0.026   | 0.020          | 0.02000   | 0           | 131                                | 50       | 150       |      |          |      |

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R28044    | RunNo:      | 28044                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/7/2015  | SeqNo:      | 844438                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Iron       | ND     | 0.020          |           |             |                                    |          |           |      |          |      |

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | R28044    | RunNo:      | 28044                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/7/2015  | SeqNo:      | 844439                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Iron       | 0.49   | 0.020          | 0.5000    | 0           | 99.0                               | 85       | 115       |      |          |      |

|            |         |                |           |             |                                    |          |           |      |          |      |
|------------|---------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LLCS    | SampType:      | LCSLL     | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | BatchQC | Batch ID:      | R28044    | RunNo:      | 28044                              |          |           |      |          |      |
| Prep Date: |         | Analysis Date: | 8/7/2015  | SeqNo:      | 844440                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Iron       | 0.020   | 0.020          | 0.02000   | 0           | 101                                | 50       | 150       |      |          |      |

## Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary R.O. Reject

|            |        |         |                          |             |                                       |          |             |      |          |      |
|------------|--------|---------|--------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |         | SampType: LCS            |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | LCSW   |         | Batch ID: D28151         |             | RunNo: 28151                          |          |             |      |          |      |
| Prep Date: |        |         | Analysis Date: 8/12/2015 |             | SeqNo: 848117                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL     | SPK value                | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Arsenic    | 0.024  | 0.0010  | 0.02500                  | 0           | 97.0                                  | 85       | 115         |      |          |      |
| Lead       | 0.012  | 0.00050 | 0.01250                  | 0           | 99.4                                  | 85       | 115         |      |          |      |
| Selenium   | 0.025  | 0.0010  | 0.02500                  | 0           | 99.7                                  | 85       | 115         |      |          |      |
| Uranium    | 0.012  | 0.00050 | 0.01250                  | 0           | 98.6                                  | 85       | 115         |      |          |      |

|            |         |         |                          |             |                                       |          |             |      |          |      |
|------------|---------|---------|--------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LLLCS   |         | SampType: LCSLL          |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | BatchQC |         | Batch ID: D28151         |             | RunNo: 28151                          |          |             |      |          |      |
| Prep Date: |         |         | Analysis Date: 8/12/2015 |             | SeqNo: 848119                         |          | Units: mg/L |      |          |      |
| Analyte    | Result  | PQL     | SPK value                | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Arsenic    | 0.0010  | 0.0010  | 0.001000                 | 0           | 104                                   | 50       | 150         |      |          |      |
| Lead       | 0.00052 | 0.00050 | 0.0005000                | 0           | 105                                   | 50       | 150         |      |          |      |
| Selenium   | 0.0010  | 0.0010  | 0.001000                 | 0           | 105                                   | 50       | 150         |      |          |      |
| Uranium    | 0.00053 | 0.00050 | 0.0005000                | 0           | 105                                   | 50       | 150         |      |          |      |

|            |        |                |           |             |           |                             |           |             |          |      |
|------------|--------|----------------|-----------|-------------|-----------|-----------------------------|-----------|-------------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      |             | TestCode: | EPA 200.8: Dissolved Metals |           |             |          |      |
| Client ID: | PBW    | Batch ID:      | D28151    |             | RunNo:    | 28151                       |           |             |          |      |
| Prep Date: |        | Analysis Date: | 8/12/2015 |             | SeqNo:    | 848122                      |           | Units: mg/L |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC      | LowLimit                    | HighLimit | %RPD        | RPDLimit | Qual |
| Arsenic    | ND     | 0.0010         |           |             |           |                             |           |             |          |      |
| Lead       | ND     | 0.00050        |           |             |           |                             |           |             |          |      |
| Selenium   | ND     | 0.0010         |           |             |           |                             |           |             |          |      |
| Uranium    | ND     | 0.00050        |           |             |           |                             |           |             |          |      |

|            |        |        |                          |             |                                       |          |             |      |          |      |
|------------|--------|--------|--------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |        | SampType: LCS            |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | LCSW   |        | Batch ID: B28323         |             | RunNo: 28323                          |          |             |      |          |      |
| Prep Date: |        |        | Analysis Date: 8/19/2015 |             | SeqNo: 855090                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL    | SPK value                | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Copper     | 0.024  | 0.0010 | 0.02500                  | 0           | 95.4                                  | 85       | 115         |      |          |      |

|            |         |                |           |             |                             |          |           |      |          |      |
|------------|---------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | LLLCS   | SampType:      | LCSLL     | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | BatchQC | Batch ID:      | B28323    | RunNo:      | 28323                       |          |           |      |          |      |
| Prep Date: |         | Analysis Date: | 8/19/2015 | SeqNo:      | 855092                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Copper     | ND      | 0.0010         | 0.001000  | 0           | 91.5                        | 50       | 150       |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company  
Project: Monthly Temporary R.O. Reject

|            |        |                |           |             |                             |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | B28323    | RunNo:      | 28323                       |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/19/2015 | SeqNo:      | 855094                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Copper     | ND     | 0.0010         |           |             |                             |          |           |      |          |      |

## Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company

Project: Monthly Temporary R.O. Reject

|            |          |                |           |             |                           |          |           |      |          |      |
|------------|----------|----------------|-----------|-------------|---------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB-20665 | SampType:      | MBLK      | TestCode:   | EPA Method 245.1: Mercury |          |           |      |          |      |
| Client ID: | PBW      | Batch ID:      | 20665     | RunNo:      | 28038                     |          |           |      |          |      |
| Prep Date: | 8/7/2015 | Analysis Date: | 8/7/2015  | SeqNo:      | 844199                    | Units:   | mg/L      |      |          |      |
| Analyte    | Result   | PQL            | SPK value | SPK Ref Val | %REC                      | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | ND       | 0.00020        |           |             |                           |          |           |      |          |      |

|            |           |                |           |             |                           |          |           |      |          |      |
|------------|-----------|----------------|-----------|-------------|---------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS-20665 | SampType:      | LCS       | TestCode:   | EPA Method 245.1: Mercury |          |           |      |          |      |
| Client ID: | LCSW      | Batch ID:      | 20665     | RunNo:      | 28038                     |          |           |      |          |      |
| Prep Date: | 8/7/2015  | Analysis Date: | 8/7/2015  | SeqNo:      | 844200                    | Units:   | mg/L      |      |          |      |
| Analyte    | Result    | PQL            | SPK value | SPK Ref Val | %REC                      | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | 0.0050    | 0.00020        | 0.005000  | 0           | 99.8                      | 80       | 120       |      |          |      |

## Qualifiers:

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- S % Recovery outside of range due to dilution or matrix

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company  
Project: Monthly Temporary R.O. Reject

|            |                    |                |           |             |                          |          |           |      |          |      |
|------------|--------------------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1508063-001EMS     | SampType:      | MS        | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | Temporary R.O. Rej | Batch ID:      | R27968    | RunNo:      | 27968                    |          |           |      |          |      |
| Prep Date: |                    | Analysis Date: | 8/4/2015  | SeqNo:      | 841509                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result             | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride   | 3.9                | 0.10           | 0.5000    | 3.578       | 64.8                     | 75.3     | 111       |      |          | S    |

|            |                    |                |           |             |                          |          |           |      |          |      |
|------------|--------------------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1508063-001EMSD    | SampType:      | MSD       | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | Temporary R.O. Rej | Batch ID:      | R27968    | RunNo:      | 27968                    |          |           |      |          |      |
| Prep Date: |                    | Analysis Date: | 8/4/2015  | SeqNo:      | 841510                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result             | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride   | 3.8                | 0.10           | 0.5000    | 3.578       | 47.8                     | 75.3     | 111       | 2.20 | 20       | S    |

|            |        |                |           |             |                          |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R27968    | RunNo:      | 27968                    |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/5/2015  | SeqNo:      | 841566                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride   | ND     | 0.10           |           |             |                          |          |           |      |          |      |
| Chloride   | ND     | 0.50           |           |             |                          |          |           |      |          |      |

|            |        |                |           |             |                          |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | R27968    | RunNo:      | 27968                    |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/5/2015  | SeqNo:      | 841567                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride   | 0.52   | 0.10           | 0.5000    | 0           | 104                      | 90       | 110       |      |          |      |
| Chloride   | 4.8    | 0.50           | 5.000     | 0           | 96.4                     | 90       | 110       |      |          |      |

|                      |        |                |           |             |                          |          |           |      |          |      |
|----------------------|--------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID            | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID:           | PBW    | Batch ID:      | R28192    | RunNo:      | 28192                    |          |           |      |          |      |
| Prep Date:           |        | Analysis Date: | 8/13/2015 | SeqNo:      | 849498                   | Units:   | mg/L      |      |          |      |
| Analyte              | Result | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Sulfate              | ND     | 0.50           |           |             |                          |          |           |      |          |      |
| Nitrate+Nitrite as N | ND     | 0.20           |           |             |                          |          |           |      |          |      |

|                      |        |                |           |             |                          |          |           |      |          |      |
|----------------------|--------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID            | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID:           | LCSW   | Batch ID:      | R28192    | RunNo:      | 28192                    |          |           |      |          |      |
| Prep Date:           |        | Analysis Date: | 8/13/2015 | SeqNo:      | 849499                   | Units:   | mg/L      |      |          |      |
| Analyte              | Result | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Sulfate              | 9.9    | 0.50           | 10.00     | 0           | 99.0                     | 90       | 110       |      |          |      |
| Nitrate+Nitrite as N | 3.5    | 0.20           | 3.500     | 0           | 101                      | 90       | 110       |      |          |      |

## Qualifiers:

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company  
Project: Monthly Temporary R.O. Reject

|                   |          |                |           |             |                            |          |           |      |          |      |
|-------------------|----------|----------------|-----------|-------------|----------------------------|----------|-----------|------|----------|------|
| Sample ID         | MB-20627 | SampType:      | MBLK      | TestCode:   | EPA Method 8011/504.1: EDB |          |           |      |          |      |
| Client ID:        | PBW      | Batch ID:      | 20627     | RunNo:      | 28045                      |          |           |      |          |      |
| Prep Date:        | 8/6/2015 | Analysis Date: | 8/7/2015  | SeqNo:      | 844775                     | Units:   | µg/L      |      |          |      |
| Analyte           | Result   | PQL            | SPK value | SPK Ref Val | %REC                       | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | ND       | 0.010          |           |             |                            |          |           |      |          |      |

|                   |           |                |           |             |                            |          |           |      |          |      |
|-------------------|-----------|----------------|-----------|-------------|----------------------------|----------|-----------|------|----------|------|
| Sample ID         | LCS-20627 | SampType:      | LCS       | TestCode:   | EPA Method 8011/504.1: EDB |          |           |      |          |      |
| Client ID:        | LCSW      | Batch ID:      | 20627     | RunNo:      | 28045                      |          |           |      |          |      |
| Prep Date:        | 8/6/2015  | Analysis Date: | 8/7/2015  | SeqNo:      | 844776                     | Units:   | µg/L      |      |          |      |
| Analyte           | Result    | PQL            | SPK value | SPK Ref Val | %REC                       | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | 0.11      | 0.010          | 0.1000    | 0           | 110                        | 70       | 130       |      |          |      |

## Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company  
Project: Monthly Temporary R.O. Reject

|                             |           |     |                         |             |                                            |          |             |      |          |      |
|-----------------------------|-----------|-----|-------------------------|-------------|--------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | LCS-20617 |     | SampType: LCS           |             | TestCode: EPA Method 8015M/D: Diesel Range |          |             |      |          |      |
| Client ID:                  | LCSW      |     | Batch ID: 20617         |             | RunNo: 27957                               |          |             |      |          |      |
| Prep Date:                  | 8/5/2015  |     | Analysis Date: 8/5/2015 |             | SeqNo: 842448                              |          | Units: mg/L |      |          |      |
| Analyte                     | Result    | PQL | SPK value               | SPK Ref Val | %REC                                       | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 5.9       | 1.0 | 5.000                   | 0           | 118                                        | 60.1     | 156         |      |          |      |
| Surr: DNOP                  | 0.52      |     | 0.5000                  |             | 104                                        | 72       | 136         |      |          |      |

|                             |                    |     |                |             |      |           |                                  |      |             |      |  |
|-----------------------------|--------------------|-----|----------------|-------------|------|-----------|----------------------------------|------|-------------|------|--|
| Sample ID                   | 1508063-001KMS     |     | SampType:      | MS          |      | TestCode: | EPA Method 8015M/D: Diesel Range |      |             |      |  |
| Client ID:                  | Temporary R.O. Rej |     | Batch ID:      | 20617       |      | RunNo:    | 27957                            |      |             |      |  |
| Prep Date:                  | 8/5/2015           |     | Analysis Date: | 8/5/2015    |      | SeqNo:    | 842451                           |      | Units: mg/L |      |  |
| Analyte                     | Result             | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                        | %RPD | RPDLimit    | Qual |  |
| Diesel Range Organics (DRO) | 5.8                | 1.0 | 5.000          | 0           | 116  | 75.9      | 164                              |      |             |      |  |
| Surr: DNOP                  | 0.51               |     | 0.5000         |             | 103  | 72        | 136                              |      |             |      |  |

|                             |                    |     |                |             |      |           |                                  |      |             |      |  |
|-----------------------------|--------------------|-----|----------------|-------------|------|-----------|----------------------------------|------|-------------|------|--|
| Sample ID                   | 1508063-001KMSD    |     | SampType:      | MSD         |      | TestCode: | EPA Method 8015M/D: Diesel Range |      |             |      |  |
| Client ID:                  | Temporary R.O. Rej |     | Batch ID:      | 20617       |      | RunNo:    | 27957                            |      |             |      |  |
| Prep Date:                  | 8/5/2015           |     | Analysis Date: | 8/5/2015    |      | SeqNo:    | 842452                           |      | Units: mg/L |      |  |
| Analyte                     | Result             | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                        | %RPD | RPDLimit    | Qual |  |
| Diesel Range Organics (DRO) | 5.6                | 1.0 | 5.000          | 0           | 112  | 75.9      | 164                              | 3.46 | 22.1        |      |  |
| Surr: DNOP                  | 0.51               |     | 0.5000         |             | 101  | 72        | 136                              | 0    | 0           |      |  |

|                                |          |     |                |             |      |           |                                  |      |             |      |  |
|--------------------------------|----------|-----|----------------|-------------|------|-----------|----------------------------------|------|-------------|------|--|
| Sample ID                      | MB-20617 |     | SampType:      | MBLK        |      | TestCode: | EPA Method 8015M/D: Diesel Range |      |             |      |  |
| Client ID:                     | PBW      |     | Batch ID:      | 20617       |      | RunNo:    | 27957                            |      |             |      |  |
| Prep Date:                     | 8/5/2015 |     | Analysis Date: | 8/5/2015    |      | SeqNo:    | 842468                           |      | Units: mg/L |      |  |
| Analyte                        | Result   | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                        | %RPD | RPDLimit    | Qual |  |
| Diesel Range Organics (DRO)    | ND       | 1.0 |                |             |      |           |                                  |      |             |      |  |
| Motor Oil Range Organics (MRO) | ND       | 5.0 |                |             |      |           |                                  |      |             |      |  |
| Surr: DNOP                     | 0.95     |     | 1.000          |             | 95.5 | 72        | 136                              |      |             |      |  |

## Qualifiers:

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D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company  
Project: Monthly Temporary R.O. Reject

|                            |          |     |                |             |      |           |                        |      |          |      |  |
|----------------------------|----------|-----|----------------|-------------|------|-----------|------------------------|------|----------|------|--|
| Sample ID                  | MB-20661 |     | SampType:      | MBLK        |      | TestCode: | EPA Method 8082: PCB's |      |          |      |  |
| Client ID:                 | PBW      |     | Batch ID:      | 20661       |      | RunNo:    | 28049                  |      |          |      |  |
| Prep Date:                 | 8/7/2015 |     | Analysis Date: | 8/10/2015   |      | SeqNo:    | 845110                 |      | Units:   | µg/L |  |
| Analyte                    | Result   | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit              | %RPD | RPDLimit | Qual |  |
| Aroclor 1016               | ND       | 1.0 |                |             |      |           |                        |      |          |      |  |
| Aroclor 1221               | ND       | 1.0 |                |             |      |           |                        |      |          |      |  |
| Aroclor 1232               | ND       | 1.0 |                |             |      |           |                        |      |          |      |  |
| Aroclor 1242               | ND       | 1.0 |                |             |      |           |                        |      |          |      |  |
| Aroclor 1248               | ND       | 1.0 |                |             |      |           |                        |      |          |      |  |
| Aroclor 1254               | ND       | 1.0 |                |             |      |           |                        |      |          |      |  |
| Aroclor 1260               | ND       | 1.0 |                |             |      |           |                        |      |          |      |  |
| Surr: Decachlorobiphenyl   | 1.8      |     | 2.500          |             | 73.6 | 44.5      | 110                    |      |          |      |  |
| Surr: Tetrachloro-m-xylene | 2.3      |     | 2.500          |             | 90.4 | 31.8      | 95.7                   |      |          |      |  |

|                            |           |     |                |             |      |           |                        |      |             |      |  |
|----------------------------|-----------|-----|----------------|-------------|------|-----------|------------------------|------|-------------|------|--|
| Sample ID                  | LCS-20661 |     | SampType:      | LCS         |      | TestCode: | EPA Method 8082: PCB's |      |             |      |  |
| Client ID:                 | LCSW      |     | Batch ID:      | 20661       |      | RunNo:    | 28049                  |      |             |      |  |
| Prep Date:                 | 8/7/2015  |     | Analysis Date: | 8/10/2015   |      | SeqNo:    | 845133                 |      | Units: µg/L |      |  |
| Analyte                    | Result    | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit              | %RPD | RPDLimit    | Qual |  |
| Aroclor 1016               | 5.9       | 1.0 | 5.000          | 0           | 117  | 9.01      | 142                    |      |             |      |  |
| Aroclor 1260               | 6.0       | 1.0 | 5.000          | 0           | 119  | 25.6      | 164                    |      |             |      |  |
| Surr: Decachlorobiphenyl   | 2.2       |     | 2.500          |             | 89.2 | 44.5      | 110                    |      |             |      |  |
| Surr: Tetrachloro-m-xylene | 2.7       |     | 2.500          |             | 107  | 31.8      | 95.7                   |      |             | S    |  |

|                            |                    |     |                |             |      |           |                        |      |          |      |  |
|----------------------------|--------------------|-----|----------------|-------------|------|-----------|------------------------|------|----------|------|--|
| Sample ID                  | 1508063-001DMS     |     | SampType:      | MS          |      | TestCode: | EPA Method 8082: PCB's |      |          |      |  |
| Client ID:                 | Temporary R.O. Rej |     | Batch ID:      | 20661       |      | RunNo:    | 28049                  |      |          |      |  |
| Prep Date:                 | 8/7/2015           |     | Analysis Date: | 8/10/2015   |      | SeqNo:    | 845724                 |      | Units:   | µg/L |  |
| Analyte                    | Result             | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit              | %RPD | RPDLimit | Qual |  |
| Aroclor 1016               | 4.7                | 1.0 | 5.000          | 0           | 94.4 | 14.5      | 105                    |      |          |      |  |
| Aroclor 1260               | 5.7                | 1.0 | 5.000          | 0           | 113  | 21.4      | 125                    |      |          |      |  |
| Surr: Decachlorobiphenyl   | 2.4                |     | 2.500          |             | 96.4 | 44.5      | 110                    |      |          |      |  |
| Surr: Tetrachloro-m-xylene | 2.8                |     | 2.500          |             | 112  | 31.8      | 95.7                   |      |          | S    |  |

|                            |                    |     |                |             |      |           |                        |      |             |      |  |
|----------------------------|--------------------|-----|----------------|-------------|------|-----------|------------------------|------|-------------|------|--|
| Sample ID                  | 1508063-001DMSD    |     | SampType:      | MSD         |      | TestCode: | EPA Method 8082: PCB's |      |             |      |  |
| Client ID:                 | Temporary R.O. Rej |     | Batch ID:      | 20661       |      | RunNo:    | 28049                  |      |             |      |  |
| Prep Date:                 | 8/7/2015           |     | Analysis Date: | 8/10/2015   |      | SeqNo:    | 845725                 |      | Units: µg/L |      |  |
| Analyte                    | Result             | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit              | %RPD | RPDLimit    | Qual |  |
| Aroclor 1016               | 4.3                | 1.0 | 5.000          | 0           | 86.6 | 14.5      | 105                    | 8.66 | 20          |      |  |
| Aroclor 1260               | 5.2                | 1.0 | 5.000          | 0           | 104  | 21.4      | 125                    | 8.17 | 27.6        |      |  |
| Surr: Decachlorobiphenyl   | 2.2                |     | 2.500          |             | 88.8 | 44.5      | 110                    | 0    | 0           |      |  |
| Surr: Tetrachloro-m-xylene | 2.5                |     | 2.500          |             | 100  | 31.8      | 95.7                   | 0    | 0           | S    |  |

## Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company  
Project: Monthly Temporary R.O. Reject

|                             |        |                |           |             |                             |          |           |      |          |      |
|-----------------------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID                   | rb     | SampType:      | MBLK      | TestCode:   | EPA Method 8260B: VOLATILES |          |           |      |          |      |
| Client ID:                  | PBW    | Batch ID:      | R27954    | RunNo:      | 27954                       |          |           |      |          |      |
| Prep Date:                  |        | Analysis Date: | 8/4/2015  | SeqNo:      | 841101                      | Units:   | %REC      |      |          |      |
| Analyte                     | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: 1,2-Dichloroethane-d4 | 11     |                | 10.00     |             | 106                         | 70       | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 10     |                | 10.00     |             | 105                         | 70       | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 11     |                | 10.00     |             | 107                         | 70       | 130       |      |          |      |
| Surr: Toluene-d8            | 9.9    |                | 10.00     |             | 98.6                        | 70       | 130       |      |          |      |

|                             |           |                |           |             |                             |          |           |      |          |      |
|-----------------------------|-----------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID                   | 100ng lcs | SampType:      | LCS       | TestCode:   | EPA Method 8260B: VOLATILES |          |           |      |          |      |
| Client ID:                  | LCSW      | Batch ID:      | R27954    | RunNo:      | 27954                       |          |           |      |          |      |
| Prep Date:                  |           | Analysis Date: | 8/4/2015  | SeqNo:      | 841102                      | Units:   | %REC      |      |          |      |
| Analyte                     | Result    | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: 1,2-Dichloroethane-d4 | 10        |                | 10.00     |             | 99.7                        | 70       | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 11        |                | 10.00     |             | 108                         | 70       | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 11        |                | 10.00     |             | 109                         | 70       | 130       |      |          |      |
| Surr: Toluene-d8            | 9.5       |                | 10.00     |             | 95.2                        | 70       | 130       |      |          |      |

|                             |           |                |           |             |                             |          |           |      |          |      |
|-----------------------------|-----------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID                   | 100ng lcs | SampType:      | LCS       | TestCode:   | EPA Method 8260B: VOLATILES |          |           |      |          |      |
| Client ID:                  | LCSW      | Batch ID:      | R27952    | RunNo:      | 27952                       |          |           |      |          |      |
| Prep Date:                  |           | Analysis Date: | 8/4/2015  | SeqNo:      | 841117                      | Units:   | µg/L      |      |          |      |
| Analyte                     | Result    | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                     | 22        | 1.0            | 20.00     | 0           | 111                         | 70       | 130       |      |          |      |
| Toluene                     | 20        | 1.0            | 20.00     | 0           | 101                         | 70       | 130       |      |          |      |
| Chlorobenzene               | 19        | 1.0            | 20.00     | 0           | 93.8                        | 70       | 130       |      |          |      |
| 1,1-Dichloroethene          | 25        | 1.0            | 20.00     | 0           | 127                         | 70       | 130       |      |          |      |
| Trichloroethene (TCE)       | 22        | 1.0            | 20.00     | 0           | 111                         | 70       | 130       |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 11        |                | 10.00     |             | 109                         | 70       | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 9.7       |                | 10.00     |             | 96.9                        | 70       | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 11        |                | 10.00     |             | 107                         | 70       | 130       |      |          |      |
| Surr: Toluene-d8            | 9.8       |                | 10.00     |             | 97.9                        | 70       | 130       |      |          |      |

|                                |          |                |           |             |                             |          |           |      |          |      |
|--------------------------------|----------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID                      | VSB deli | SampType:      | MBLK      | TestCode:   | EPA Method 8260B: VOLATILES |          |           |      |          |      |
| Client ID:                     | PBW      | Batch ID:      | R27952    | RunNo:      | 27952                       |          |           |      |          |      |
| Prep Date:                     |          | Analysis Date: | 8/4/2015  | SeqNo:      | 841118                      | Units:   | µg/L      |      |          |      |
| Analyte                        | Result   | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                        | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| Toluene                        | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| Ethylbenzene                   | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2,4-Trimethylbenzene         | ND       | 1.0            |           |             |                             |          |           |      |          |      |

## Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company

Project: Monthly Temporary R.O. Reject

|                             |          |                         |           |                                       |      |             |           |      |          |      |
|-----------------------------|----------|-------------------------|-----------|---------------------------------------|------|-------------|-----------|------|----------|------|
| Sample ID                   | VSB deli | SampType: MBLK          |           | TestCode: EPA Method 8260B: VOLATILES |      |             |           |      |          |      |
| Client ID:                  | PBW      | Batch ID: R27952        |           | RunNo: 27952                          |      |             |           |      |          |      |
| Prep Date:                  |          | Analysis Date: 8/4/2015 |           | SeqNo: 841118                         |      | Units: µg/L |           |      |          |      |
| Analyte                     | Result   | PQL                     | SPK value | SPK Ref Val                           | %REC | LowLimit    | HighLimit | %RPD | RPDLimit | Qual |
| 1,3,5-Trimethylbenzene      | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,2-Dichloroethane (EDC)    | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,2-Dibromoethane (EDB)     | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| Naphthalene                 | ND       | 2.0                     |           |                                       |      |             |           |      |          |      |
| 1-Methylnaphthalene         | ND       | 4.0                     |           |                                       |      |             |           |      |          |      |
| 2-Methylnaphthalene         | ND       | 4.0                     |           |                                       |      |             |           |      |          |      |
| Acetone                     | ND       | 10                      |           |                                       |      |             |           |      |          |      |
| Bromobenzene                | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| Bromodichloromethane        | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| Bromoform                   | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| Bromomethane                | ND       | 3.0                     |           |                                       |      |             |           |      |          |      |
| 2-Butanone                  | ND       | 10                      |           |                                       |      |             |           |      |          |      |
| Carbon disulfide            | ND       | 10                      |           |                                       |      |             |           |      |          |      |
| Carbon Tetrachloride        | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| Chlorobenzene               | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| Chloroethane                | ND       | 2.0                     |           |                                       |      |             |           |      |          |      |
| Chloroform                  | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| Chloromethane               | ND       | 3.0                     |           |                                       |      |             |           |      |          |      |
| 2-Chlorotoluene             | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| 4-Chlorotoluene             | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| cis-1,2-DCE                 | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| cis-1,3-Dichloropropene     | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,2-Dibromo-3-chloropropane | ND       | 2.0                     |           |                                       |      |             |           |      |          |      |
| Dibromochloromethane        | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| Dibromomethane              | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,2-Dichlorobenzene         | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,3-Dichlorobenzene         | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,4-Dichlorobenzene         | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| Dichlorodifluoromethane     | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,1-Dichloroethane          | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,1-Dichloroethene          | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,2-Dichloropropane         | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,3-Dichloropropane         | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| 2,2-Dichloropropane         | ND       | 2.0                     |           |                                       |      |             |           |      |          |      |
| 1,1-Dichloropropene         | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| Hexachlorobutadiene         | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| 2-Hexanone                  | ND       | 10                      |           |                                       |      |             |           |      |          |      |
| Isopropylbenzene            | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |
| 4-Isopropyltoluene          | ND       | 1.0                     |           |                                       |      |             |           |      |          |      |

## Qualifiers:

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- D Sample Diluted Due to Matrix
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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company  
Project: Monthly Temporary R.O. Reject

|                             |          |                |           |             |                             |          |           |      |          |      |
|-----------------------------|----------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID                   | VSB deli | SampType:      | MBLK      | TestCode:   | EPA Method 8260B: VOLATILES |          |           |      |          |      |
| Client ID:                  | PBW      | Batch ID:      | R27952    | RunNo:      | 27952                       |          |           |      |          |      |
| Prep Date:                  |          | Analysis Date: | 8/4/2015  | SeqNo:      | 841118                      | Units:   | µg/L      |      |          |      |
| Analyte                     | Result   | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| 4-Methyl-2-pentanone        | ND       | 10             |           |             |                             |          |           |      |          |      |
| Methylene Chloride          | ND       | 3.0            |           |             |                             |          |           |      |          |      |
| n-Butylbenzene              | ND       | 3.0            |           |             |                             |          |           |      |          |      |
| n-Propylbenzene             | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| sec-Butylbenzene            | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| Styrene                     | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| tert-Butylbenzene           | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND       | 2.0            |           |             |                             |          |           |      |          |      |
| Tetrachloroethene (PCE)     | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| trans-1,2-DCE               | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| trans-1,3-Dichloropropene   | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2,3-Trichlorobenzene      | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2,4-Trichlorobenzene      | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1,1-Trichloroethane       | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| 1,1,2-Trichloroethane       | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| Trichloroethene (TCE)       | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| Trichlorofluoromethane      | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| 1,2,3-Trichloropropane      | ND       | 2.0            |           |             |                             |          |           |      |          |      |
| Vinyl chloride              | ND       | 1.0            |           |             |                             |          |           |      |          |      |
| Xylenes, Total              | ND       | 1.5            |           |             |                             |          |           |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 10       |                | 10.00     |             | 103                         | 70       | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 10       |                | 10.00     |             | 103                         | 70       | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 10       |                | 10.00     |             | 102                         | 70       | 130       |      |          |      |
| Surr: Toluene-d8            | 9.6      |                | 10.00     |             | 96.3                        | 70       | 130       |      |          |      |

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company  
Project: Monthly Temporary R.O. Reject

|                      |           |                |           |             |                       |          |           |      |          |      |
|----------------------|-----------|----------------|-----------|-------------|-----------------------|----------|-----------|------|----------|------|
| Sample ID            | MB-20677  | SampType:      | MBLK      | TestCode:   | EPA Method 8310: PAHs |          |           |      |          |      |
| Client ID:           | PBW       | Batch ID:      | 20677     | RunNo:      | 28051                 |          |           |      |          |      |
| Prep Date:           | 8/10/2015 | Analysis Date: | 8/10/2015 | SeqNo:      | 844835                | Units:   | µg/L      |      |          |      |
| Analyte              | Result    | PQL            | SPK value | SPK Ref Val | %REC                  | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Naphthalene          | ND        | 2.0            |           |             |                       |          |           |      |          |      |
| 1-Methylnaphthalene  | ND        | 2.0            |           |             |                       |          |           |      |          |      |
| 2-Methylnaphthalene  | ND        | 2.0            |           |             |                       |          |           |      |          |      |
| Benzo(a)pyrene       | ND        | 0.070          |           |             |                       |          |           |      |          |      |
| Surr: Benzo(e)pyrene | 14        |                | 20.00     |             | 68.8                  | 37.2     | 136       |      |          |      |

|                      |           |       |                          |             |                                 |          |             |      |          |      |
|----------------------|-----------|-------|--------------------------|-------------|---------------------------------|----------|-------------|------|----------|------|
| Sample ID            | LCS-20677 |       | SampType: LCS            |             | TestCode: EPA Method 8310: PAHs |          |             |      |          |      |
| Client ID:           | LCSW      |       | Batch ID: 20677          |             | RunNo: 28051                    |          |             |      |          |      |
| Prep Date:           | 8/10/2015 |       | Analysis Date: 8/10/2015 |             | SeqNo: 845107                   |          | Units: µg/L |      |          |      |
| Analyte              | Result    | PQL   | SPK value                | SPK Ref Val | %REC                            | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Naphthalene          | 71        | 2.0   | 80.00                    | 0           | 89.4                            | 57.8     | 83.9        |      |          | S    |
| 1-Methylnaphthalene  | 74        | 2.0   | 80.20                    | 0           | 91.8                            | 43.5     | 88.5        |      |          | S    |
| 2-Methylnaphthalene  | 72        | 2.0   | 80.00                    | 0           | 89.4                            | 34.2     | 94.5        |      |          |      |
| Benzo(a)pyrene       | 0.44      | 0.070 | 0.5020                   | 0           | 87.6                            | 56.3     | 98.6        |      |          |      |
| Surr: Benzo(e)pyrene | 14        |       | 20.00                    |             | 70.8                            | 37.2     | 136         |      |          |      |

|                      |                    |                |           |             |                       |          |           |      |          |      |
|----------------------|--------------------|----------------|-----------|-------------|-----------------------|----------|-----------|------|----------|------|
| Sample ID            | 1508063-001DMS     | SampType:      | MS        | TestCode:   | EPA Method 8310: PAHs |          |           |      |          |      |
| Client ID:           | Temporary R.O. Rej | Batch ID:      | 20677     | RunNo:      | 28051                 |          |           |      |          |      |
| Prep Date:           | 8/10/2015          | Analysis Date: | 8/10/2015 | SeqNo:      | 845141                | Units:   | µg/L      |      |          |      |
| Analyte              | Result             | PQL            | SPK value | SPK Ref Val | %REC                  | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Naphthalene          | 63                 | 2.0            | 80.00     | 0           | 78.8                  | 21.6     | 109       |      |          |      |
| 1-Methylnaphthalene  | 64                 | 2.0            | 80.20     | 0           | 79.7                  | 15.8     | 102       |      |          |      |
| 2-Methylnaphthalene  | 62                 | 2.0            | 80.00     | 0           | 78.0                  | 11.4     | 99        |      |          |      |
| Benzo(a)pyrene       | 0.40               | 0.070          | 0.5020    | 0           | 79.7                  | 25       | 123       |      |          |      |
| Surr: Benzo(e)pyrene | 13                 |                | 20.00     |             | 67.3                  | 37.2     | 136       |      |          |      |

|                      |                    |                |           |             |                       |          |           |      |          |      |
|----------------------|--------------------|----------------|-----------|-------------|-----------------------|----------|-----------|------|----------|------|
| Sample ID            | 1508063-001DMSD    | SampType:      | MSD       | TestCode:   | EPA Method 8310: PAHs |          |           |      |          |      |
| Client ID:           | Temporary R.O. Rej | Batch ID:      | 20677     | RunNo:      | 28051                 |          |           |      |          |      |
| Prep Date:           | 8/10/2015          | Analysis Date: | 8/10/2015 | SeqNo:      | 845142                | Units:   | µg/L      |      |          |      |
| Analyte              | Result             | PQL            | SPK value | SPK Ref Val | %REC                  | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Naphthalene          | 54                 | 2.0            | 80.00     | 0           | 67.5                  | 21.6     | 109       | 15.5 | 20       |      |
| 1-Methylnaphthalene  | 55                 | 2.0            | 80.20     | 0           | 68.8                  | 15.8     | 102       | 14.7 | 20       |      |
| 2-Methylnaphthalene  | 54                 | 2.0            | 80.00     | 0           | 67.6                  | 11.4     | 99        | 14.3 | 20       |      |
| Benzo(a)pyrene       | 0.34               | 0.070          | 0.5020    | 0           | 67.7                  | 25       | 123       | 16.2 | 20       |      |
| Surr: Benzo(e)pyrene | 12                 |                | 20.00     |             | 58.0                  | 37.2     | 136       | 0    |          |      |

### Qualifiers:

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- D Sample Diluted Due to Matrix
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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

**Client:** Navajo Refining Company  
**Project:** Monthly Temporary R.O. Reject

|                              |          |                |           |             |                                |          |           |      |          |      |
|------------------------------|----------|----------------|-----------|-------------|--------------------------------|----------|-----------|------|----------|------|
| Sample ID                    | MB-20629 | SampType:      | MBLK      | TestCode:   | Total Phenolics by SW-846 9067 |          |           |      |          |      |
| Client ID:                   | PBW      | Batch ID:      | 20629     | RunNo:      | 27992                          |          |           |      |          |      |
| Prep Date:                   | 8/6/2015 | Analysis Date: | 8/6/2015  | SeqNo:      | 842690                         | Units:   | µg/L      |      |          |      |
| Analyte                      | Result   | PQL            | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | ND       | 2.5            |           |             |                                |          |           |      |          |      |

|                              |           |                |           |             |                                |          |           |      |          |      |
|------------------------------|-----------|----------------|-----------|-------------|--------------------------------|----------|-----------|------|----------|------|
| Sample ID                    | LCS-20629 | SampType:      | LCS       | TestCode:   | Total Phenolics by SW-846 9067 |          |           |      |          |      |
| Client ID:                   | LCSW      | Batch ID:      | 20629     | RunNo:      | 27992                          |          |           |      |          |      |
| Prep Date:                   | 8/6/2015  | Analysis Date: | 8/6/2015  | SeqNo:      | 842691                         | Units:   | µg/L      |      |          |      |
| Analyte                      | Result    | PQL            | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | 21        | 2.5            | 20.00     | 0           | 104                            | 64.4     | 135       |      |          |      |

|                              |            |                |           |             |                                |          |           |      |          |      |
|------------------------------|------------|----------------|-----------|-------------|--------------------------------|----------|-----------|------|----------|------|
| Sample ID                    | LCSD-20629 | SampType:      | LCSD      | TestCode:   | Total Phenolics by SW-846 9067 |          |           |      |          |      |
| Client ID:                   | LCSS02     | Batch ID:      | 20629     | RunNo:      | 27992                          |          |           |      |          |      |
| Prep Date:                   | 8/6/2015   | Analysis Date: | 8/6/2015  | SeqNo:      | 842692                         | Units:   | µg/L      |      |          |      |
| Analyte                      | Result     | PQL            | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | 18         | 2.5            | 20.00     | 0           | 91.6                           | 64.4     | 135       | 12.7 | 21.4     |      |

### Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company  
Project: Monthly Temporary R.O. Reject

|            |           |                |           |             |                                 |          |           |      |          |      |
|------------|-----------|----------------|-----------|-------------|---------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB-R28452 | SampType:      | MBLK      | TestCode:   | EPA 335.4: Total Cyanide Subbed |          |           |      |          |      |
| Client ID: | PBW       | Batch ID:      | R28452    | RunNo:      | 28452                           |          |           |      |          |      |
| Prep Date: |           | Analysis Date: | 8/12/2015 | SeqNo:      | 859841                          | Units:   | mg/L      |      |          |      |
| Analyte    | Result    | PQL            | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Cyanide    | ND        | 0.0100         |           |             |                                 |          |           |      |          |      |

|            |            |                |           |             |                                 |          |           |      |          |      |
|------------|------------|----------------|-----------|-------------|---------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS-R28452 | SampType:      | LCS       | TestCode:   | EPA 335.4: Total Cyanide Subbed |          |           |      |          |      |
| Client ID: | LCSW       | Batch ID:      | R28452    | RunNo:      | 28452                           |          |           |      |          |      |
| Prep Date: |            | Analysis Date: | 8/12/2015 | SeqNo:      | 859842                          | Units:   | mg/L      |      |          |      |
| Analyte    | Result     | PQL            | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Cyanide    | 0.521      |                | 0.5000    | 0           | 104                             | 90       | 110       |      |          |      |

## Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company  
Project: Monthly Temporary R.O. Reject

|                               |        |               |           |             |                                  |          |           |      |          |      |
|-------------------------------|--------|---------------|-----------|-------------|----------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | rb     | SampType      | MBLK      | TestCode    | EPA Method 8015D: Gasoline Range |          |           |      |          |      |
| Client ID                     | PBW    | Batch ID      | R27954    | RunNo       | 27954                            |          |           |      |          |      |
| Prep Date                     |        | Analysis Date | 8/4/2015  | SeqNo       | 841369                           | Units    | mg/L      |      |          |      |
| Analyte                       | Result | PQL           | SPK value | SPK Ref Val | %REC                             | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND     | 0.050         |           |             |                                  |          |           |      |          |      |
| Surr: BFB                     | 10     |               | 10.00     |             | 101                              | 70       | 130       |      |          |      |

|                               |               |               |           |             |                                  |          |           |      |          |      |
|-------------------------------|---------------|---------------|-----------|-------------|----------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | 2.5ug gro lcs | SampType      | LCS       | TestCode    | EPA Method 8015D: Gasoline Range |          |           |      |          |      |
| Client ID                     | LCSW          | Batch ID      | R27954    | RunNo       | 27954                            |          |           |      |          |      |
| Prep Date                     |               | Analysis Date | 8/4/2015  | SeqNo       | 841371                           | Units    | mg/L      |      |          |      |
| Analyte                       | Result        | PQL           | SPK value | SPK Ref Val | %REC                             | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 0.50          | 0.050         | 0.5000    | 0           | 100                              | 80.6     | 122       |      |          |      |
| Surr: BFB                     | 9.9           |               | 10.00     |             | 99.4                             | 70       | 130       |      |          |      |

## Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

Client: Navajo Refining Company

Project: Monthly Temporary R.O. Reject

|              |           |       |                |             |      |           |                                                |      |              |      |  |
|--------------|-----------|-------|----------------|-------------|------|-----------|------------------------------------------------|------|--------------|------|--|
| Sample ID    | MB-R28452 |       | SampType:      | MBLK        |      | TestCode: | EPA 903.1: Ra 226 and EPA 904.0: Ra 228-Subbed |      |              |      |  |
| Client ID:   | PBW       |       | Batch ID:      | R28452      |      | RunNo:    | 28452                                          |      |              |      |  |
| Prep Date:   |           |       | Analysis Date: | 8/18/2015   |      | SeqNo:    | 859845                                         |      | Units: pCi/L |      |  |
| Analyte      | Result    | PQL   | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                                      | %RPD | RPDLimit     | Qual |  |
| Radium-226   | ND        | 0.551 |                |             |      |           |                                                |      |              |      |  |
| Radium-226 ± | 0.342     | 0.551 |                |             |      |           |                                                |      |              |      |  |
| Radium-228   | 0.014     | 0.860 |                |             |      |           |                                                |      |              |      |  |
| Radium-228 ± | 0.371     | 0.860 |                |             |      |           |                                                |      |              |      |  |

|              |           |       |                |             |      |           |                                                |      |              |      |  |
|--------------|-----------|-------|----------------|-------------|------|-----------|------------------------------------------------|------|--------------|------|--|
| Sample ID    | MB-R28452 |       | SampType:      | MBLK        |      | TestCode: | EPA 903.1: Ra 226 and EPA 904.0: Ra 228-Subbed |      |              |      |  |
| Client ID:   | PBW       |       | Batch ID:      | R28452      |      | RunNo:    | 28452                                          |      |              |      |  |
| Prep Date:   |           |       | Analysis Date: | 8/18/2015   |      | SeqNo:    | 859847                                         |      | Units: pCi/L |      |  |
| Analyte      | Result    | PQL   | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                                      | %RPD | RPDLimit     | Qual |  |
| Radium-226   | 0.556     | 0.599 |                |             |      |           |                                                |      |              |      |  |
| Radium-226 ± | 0.441     | 0.599 |                |             |      |           |                                                |      |              |      |  |
| Radium-228   | 0.314     | 0.882 |                |             |      |           |                                                |      |              |      |  |
| Radium-228 ± | 0.412     | 0.882 |                |             |      |           |                                                |      |              |      |  |

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508063

26-Aug-15

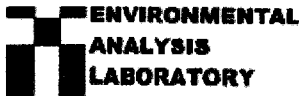
Client: Navajo Refining Company  
Project: Monthly Temporary R.O. Reject

|                        |          |                |           |             |                                     |          |           |      |          |      |
|------------------------|----------|----------------|-----------|-------------|-------------------------------------|----------|-----------|------|----------|------|
| Sample ID              | MB-20614 | SampType:      | MBLK      | TestCode:   | SM2540C MOD: Total Dissolved Solids |          |           |      |          |      |
| Client ID:             | PBW      | Batch ID:      | 20614     | RunNo:      | 28014                               |          |           |      |          |      |
| Prep Date:             | 8/5/2015 | Analysis Date: | 8/6/2015  | SeqNo:      | 843310                              | Units:   | mg/L      |      |          |      |
| Analyte                | Result   | PQL            | SPK value | SPK Ref Val | %REC                                | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Total Dissolved Solids | ND       | 20.0           |           |             |                                     |          |           |      |          |      |

|                        |           |                |           |             |                                     |          |           |      |          |      |
|------------------------|-----------|----------------|-----------|-------------|-------------------------------------|----------|-----------|------|----------|------|
| Sample ID              | LCS-20614 | SampType:      | LCS       | TestCode:   | SM2540C MOD: Total Dissolved Solids |          |           |      |          |      |
| Client ID:             | LCSW      | Batch ID:      | 20614     | RunNo:      | 28014                               |          |           |      |          |      |
| Prep Date:             | 8/5/2015  | Analysis Date: | 8/6/2015  | SeqNo:      | 843311                              | Units:   | mg/L      |      |          |      |
| Analyte                | Result    | PQL            | SPK value | SPK Ref Val | %REC                                | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Total Dissolved Solids | 1020      | 20.0           | 1000      | 0           | 102                                 | 80       | 120       |      |          |      |

## Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |



4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name **NAVAJO REFINING CO**

Work Order Number: **1508063**

RcptNo: **1**

Received by/date:

**CS**

**08/04/15**

Logged By **Ashley Gallegos**

**8/4/2015 9:13:00 AM**

*[Signature]*

Completed By: **Ashley Gallegos**

**8/4/2015 9:27:44 AM**

*[Signature]*

Reviewed By:

**CS**

**08/04/15**

### Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH: 6 or 12 (unless noted)
- Adjusted? Yes
- Checked by: JA

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 5.2     | Good      | Not Present |         |           |           |





Navajo Refining Company, LLC  
901 E. Main  
Artesia, NM 88210  
(Tel) 575 748 3311  
(Fax) 575 746 5451

## Monthly RO Reject Sample Details Attachment



# HOLLYFRONTIER

The HollyFrontier Companies

| Sample Type             |                                     |
|-------------------------|-------------------------------------|
| Grab                    | <input checked="" type="checkbox"/> |
| Time Weighted Composite | <input type="checkbox"/>            |
| Flow Weighted Composite | <input type="checkbox"/>            |

| Physical Property |                                     |
|-------------------|-------------------------------------|
| Solid             | <input type="checkbox"/>            |
| Liquid            | <input checked="" type="checkbox"/> |
| Sludge            | <input type="checkbox"/>            |

|                 |                         |
|-----------------|-------------------------|
| Type of Sampler | Directly to sample jars |
|-----------------|-------------------------|

|                      |                         |
|----------------------|-------------------------|
| Project Name         | Biannual RO Reject      |
| Samplers Name        | Elizabeth Salsberry     |
| Samplers Affiliation | Navajo Refining Co. LLC |
| Start Date and Time  | 8/22/2015 @ 0825        |
| End Date and Time    | 8/22/2015 @ 9:41        |

|                          |     |
|--------------------------|-----|
| Parts / Sample Intervals | One |
|--------------------------|-----|

|                            |                                                                                                                                  |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Outfall / Sample Location: | <input type="checkbox"/> North Field R.O. Reject Discharge <input checked="" type="checkbox"/> South Field R.O. Reject Discharge |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------|

| Container | Size  | Material | # of Containers | Preservatives |     |      |       |      |         | Analysis and/or Method Requested |                             |
|-----------|-------|----------|-----------------|---------------|-----|------|-------|------|---------|----------------------------------|-----------------------------|
|           |       |          |                 | Neat (None)   | HCl | HNO3 | H2SO4 | NaOH | Na2S2O3 |                                  | NaHSO4                      |
| 1         | 500ml | Plastic  | 2               | X             |     |      | X     |      |         |                                  | pH, Cl F, SO4, NO2/NO3, TDS |
| 2         | 40ml  | VOA      | 3               |               | X   |      |       |      |         |                                  | 8015 GRO                    |
| 3         | 500ml | Plastic  | 1               |               |     | X    |       |      |         |                                  | 6020 total metals, 7470 Hg  |
| 4         | 125ml | Plastic  | 1               |               |     | X    |       |      |         |                                  | 6020 Dissolved Metals       |
| 5         | 500ml | Plastic  | 2               |               |     |      |       | X    |         |                                  | Cyanide                     |
| 6         | 1L    | Plastic  | 3               |               |     | X    |       |      |         |                                  | Radium 226/228              |
| 7         | 40ml  | VOA      | 2               |               | X   |      |       |      |         |                                  | 8260 see attached list      |
| 8         | 1L    | Glass    | 1               | X             |     |      |       |      |         |                                  | 8270 see attached list      |
| 9         | 1L    | Glass    | 2               | X             |     |      |       |      |         |                                  | 8082 PCBs                   |
| 10        | 40ml  | VOA      | 2               | X             |     |      |       |      |         |                                  | 8015 DRC                    |
| 11        | 40ml  | VOA      | 2               |               | X   |      |       |      |         |                                  | Radium 226/228              |

|                                          |                                                                                          |
|------------------------------------------|------------------------------------------------------------------------------------------|
| Field Date (Weather, Observations, Etc.) | 8/22/2015 Temp: 80.6 °F, Humidity 58%, Wind Dr. NW, Wind Speed 4.6 mph, Conditions Clear |
| Date and Time:                           |                                                                                          |

|                    |                |
|--------------------|----------------|
| Field Temp: 26.1°C | Field pH: 7.77 |
|--------------------|----------------|

|                |                                         |
|----------------|-----------------------------------------|
| Storage Method | Ice <input checked="" type="checkbox"/> |
| Refrigerated   | <input type="checkbox"/>                |
| Other          | <input type="checkbox"/>                |

|                |                                         |
|----------------|-----------------------------------------|
| Shipping Media | Ice <input checked="" type="checkbox"/> |
| Other          | <input type="checkbox"/>                |



*Hall Environmental Analysis Laboratory*  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

August 26, 2015

Robert Combs  
Navajo Refining Company  
P.O. Box 159  
Artesia, NM 88211-0159  
TEL: (575) 748-3311  
FAX

RE: Monthly R.O. Reject

OrderNo.: 1508065

Dear Robert Combs:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/4/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1508065

Date Reported: 8/26/2015

CLIENT: Navajo Refining Company

Client Sample ID: R.O. Reject

Project: Monthly R.O. Reject

Collection Date: 8/3/2015 10:10:00 AM

Lab ID: 1508065-001

Matrix: AQUEOUS

Received Date: 8/4/2015 9:13:00 AM

| Analyses                                              | Result | RL      | Qual | Units    | DF | Date Analyzed        | Batch        |
|-------------------------------------------------------|--------|---------|------|----------|----|----------------------|--------------|
| <b>EPA 200.8: DISSOLVED METALS</b>                    |        |         |      |          |    |                      | Analyst: DBD |
| Arsenic                                               | ND     | 0.0050  |      | mg/L     | 5  | 8/12/2015 8:24:51 PM | D28151       |
| Lead                                                  | ND     | 0.00050 |      | mg/L     | 1  | 8/11/2015 9:43:20 PM | R28115       |
| Selenium                                              | 0.0067 | 0.0010  |      | mg/L     | 1  | 8/11/2015 9:43:20 PM | R28115       |
| Uranium                                               | 0.0047 | 0.00050 |      | mg/L     | 1  | 8/11/2015 9:43:20 PM | R28115       |
| <b>EPA 903.1: RA 226 AND EPA 904.0: RA 228-SUBBED</b> |        |         |      |          |    |                      | Analyst: SUB |
| Radium-226                                            | 0.144  | 0.867   |      | pCi/L    | 1  | 8/18/2015            | R28452       |
| Radium-226 ±                                          | 0.448  | 0.867   |      | pCi/L    | 1  | 8/18/2015            | R28452       |
| Radium-228                                            | 0.151  | 0.690   |      | pCi/L    | 1  | 8/18/2015            | R28452       |
| Radium-228 ±                                          | 0.313  | 0.690   |      | pCi/L    | 1  | 8/18/2015            | R28452       |
| <b>EPA METHOD 300.0: ANIONS</b>                       |        |         |      |          |    |                      | Analyst: LGT |
| Fluoride                                              | 2.4    | 0.10    |      | mg/L     | 1  | 8/4/2015 7:37:13 PM  | R27968       |
| Chloride                                              | 230    | 10      |      | mg/L     | 20 | 8/4/2015 7:49:37 PM  | R27968       |
| Nitrogen, Nitrate (As N)                              | 1.6    | 0.10    |      | mg/L     | 1  | 8/4/2015 7:37:13 PM  | R27968       |
| Sulfate                                               | 1400   | 25      |      | mg/L     | 50 | 8/14/2015 3:09:51 AM | R28192       |
| <b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>            |        |         |      |          |    |                      | Analyst: KS  |
| Total Dissolved Solids                                | 2860   | 20.0    | *    | mg/L     | 1  | 8/6/2015 8:33:00 PM  | 20626        |
| <b>EPA 335.4: TOTAL CYANIDE SUBBED</b>                |        |         |      |          |    |                      | Analyst: SUB |
| Cyanide                                               | ND     | 0.0100  |      | mg/L     | 1  | 8/12/2015            | R28452       |
| <b>SM4500-H+B: PH</b>                                 |        |         |      |          |    |                      | Analyst: JRR |
| pH                                                    | 8.09   | 1.68    | H    | pH units | 1  | 8/6/2015 8:11:30 PM  | R28029       |
| <b>EPA METHOD 200.7: DISSOLVED METALS</b>             |        |         |      |          |    |                      | Analyst: ELS |
| Aluminum                                              | ND     | 0.020   |      | mg/L     | 1  | 8/5/2015 9:52:54 PM  | R27986       |
| Barium                                                | 0.056  | 0.0020  |      | mg/L     | 1  | 8/5/2015 9:52:54 PM  | R27986       |
| Boron                                                 | 0.083  | 0.040   |      | mg/L     | 1  | 8/5/2015 9:52:54 PM  | R27986       |
| Cadmium                                               | ND     | 0.0020  |      | mg/L     | 1  | 8/5/2015 9:52:54 PM  | R27986       |
| Chromium                                              | ND     | 0.0060  |      | mg/L     | 1  | 8/5/2015 9:52:54 PM  | R27986       |
| Cobalt                                                | ND     | 0.0060  |      | mg/L     | 1  | 8/5/2015 9:52:54 PM  | R27986       |
| Copper                                                | ND     | 0.0060  |      | mg/L     | 1  | 8/6/2015 3:44:28 PM  | C28013       |
| Iron                                                  | ND     | 0.020   |      | mg/L     | 1  | 8/7/2015 2:07:43 PM  | R28044       |
| Manganese                                             | ND     | 0.0020  |      | mg/L     | 1  | 8/5/2015 9:52:54 PM  | R27986       |
| Molybdenum                                            | ND     | 0.0080  |      | mg/L     | 1  | 8/5/2015 9:52:54 PM  | R27986       |
| Nickel                                                | ND     | 0.010   |      | mg/L     | 1  | 8/5/2015 9:52:54 PM  | R27986       |
| Silver                                                | ND     | 0.0050  |      | mg/L     | 1  | 8/5/2015 9:52:54 PM  | R27986       |
| Zinc                                                  | 0.051  | 0.010   |      | mg/L     | 1  | 8/6/2015 3:44:28 PM  | C28013       |
| <b>EPA METHOD 245.1: MERCURY</b>                      |        |         |      |          |    |                      | Analyst: JLF |
| Mercury                                               | ND     | 0.00020 |      | mg/L     | 1  | 8/7/2015 2:04:07 PM  | 20665        |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1508065

Date Reported: 8/26/2015

CLIENT: Navajo Refining Company

Client Sample ID: R.O. Reject

Project: Monthly R.O. Reject

Collection Date: 8/3/2015 10:10:00 AM

Lab ID: 1508065-001

Matrix: AQUEOUS

Received Date: 8/4/2015 9:13:00 AM

| Analyses                                | Result | RL        | Qual | Units | DF | Date Analyzed         | Batch        |
|-----------------------------------------|--------|-----------|------|-------|----|-----------------------|--------------|
| <b>EPA METHOD 8015D: GASOLINE RANGE</b> |        |           |      |       |    |                       | Analyst: DJF |
| Gasoline Range Organics (GRO)           | 0.072  | 0.050     |      | mg/L  | 1  | 8/5/2015 8:34:25 PM   | R27991       |
| Surr: BFB                               | 103    | 70-130    |      | %REC  | 1  | 8/5/2015 8:34:25 PM   | R27991       |
| <b>EPA METHOD 8011/504.1: EDB</b>       |        |           |      |       |    |                       | Analyst: JME |
| 1,2-Dibromoethane                       | ND     | 0.010     |      | µg/L  | 1  | 8/7/2015 12:22:21 PM  | 20627        |
| <b>EPA METHOD 8082: PCB'S</b>           |        |           |      |       |    |                       | Analyst: SCC |
| Aroclor 1016                            | ND     | 1.0       |      | µg/L  | 1  | 8/10/2015 12:08:32 PM | 20661        |
| Aroclor 1221                            | ND     | 1.0       |      | µg/L  | 1  | 8/10/2015 12:08:32 PM | 20661        |
| Aroclor 1232                            | ND     | 1.0       |      | µg/L  | 1  | 8/10/2015 12:08:32 PM | 20661        |
| Aroclor 1242                            | ND     | 1.0       |      | µg/L  | 1  | 8/10/2015 12:08:32 PM | 20661        |
| Aroclor 1248                            | ND     | 1.0       |      | µg/L  | 1  | 8/10/2015 12:08:32 PM | 20661        |
| Aroclor 1254                            | ND     | 1.0       |      | µg/L  | 1  | 8/10/2015 12:08:32 PM | 20661        |
| Aroclor 1260                            | ND     | 1.0       |      | µg/L  | 1  | 8/10/2015 12:08:32 PM | 20661        |
| Surr: Decachlorobiphenyl                | 90.0   | 44.5-110  |      | %REC  | 1  | 8/10/2015 12:08:32 PM | 20661        |
| Surr: Tetrachloro-m-xylene              | 108    | 31.8-95.7 | S    | %REC  | 1  | 8/10/2015 12:08:32 PM | 20661        |
| <b>EPA METHOD 8015M/D: DIESEL RANGE</b> |        |           |      |       |    |                       | Analyst: KJH |
| Diesel Range Organics (DRO)             | ND     | 1.0       |      | mg/L  | 1  | 8/5/2015 11:43:27 PM  | 20617        |
| Motor Oil Range Organics (MRO)          | ND     | 5.0       |      | mg/L  | 1  | 8/5/2015 11:43:27 PM  | 20617        |
| Surr: DNOP                              | 102    | 72-136    |      | %REC  | 1  | 8/5/2015 11:43:27 PM  | 20617        |
| <b>EPA METHOD 8310: PAHS</b>            |        |           |      |       |    |                       | Analyst: SCC |
| Naphthalene                             | ND     | 2.0       |      | µg/L  | 1  | 8/10/2015 10:49:51 AM | 20677        |
| 1-Methylnaphthalene                     | ND     | 2.0       |      | µg/L  | 1  | 8/10/2015 10:49:51 AM | 20677        |
| 2-Methylnaphthalene                     | ND     | 2.0       |      | µg/L  | 1  | 8/10/2015 10:49:51 AM | 20677        |
| Benzo(a)pyrene                          | ND     | 0.070     |      | µg/L  | 1  | 8/10/2015 10:49:51 AM | 20677        |
| Surr: Benzo(e)pyrene                    | 75.6   | 37.2-136  |      | %REC  | 1  | 8/10/2015 10:49:51 AM | 20677        |
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |           |      |       |    |                       | Analyst: DJF |
| Benzene                                 | ND     | 1.0       |      | µg/L  | 1  | 8/5/2015 8:34:25 PM   | R27991       |
| Toluene                                 | ND     | 1.0       |      | µg/L  | 1  | 8/5/2015 8:34:25 PM   | R27991       |
| Ethylbenzene                            | ND     | 1.0       |      | µg/L  | 1  | 8/5/2015 8:34:25 PM   | R27991       |
| 1,2-Dichloroethane (EDC)                | ND     | 1.0       |      | µg/L  | 1  | 8/5/2015 8:34:25 PM   | R27991       |
| 1,2-Dibromoethane (EDB)                 | ND     | 1.0       |      | µg/L  | 1  | 8/5/2015 8:34:25 PM   | R27991       |
| Carbon Tetrachloride                    | ND     | 1.0       |      | µg/L  | 1  | 8/5/2015 8:34:25 PM   | R27991       |
| Chloroform                              | ND     | 1.0       |      | µg/L  | 1  | 8/5/2015 8:34:25 PM   | R27991       |
| 1,1-Dichloroethane                      | ND     | 1.0       |      | µg/L  | 1  | 8/5/2015 8:34:25 PM   | R27991       |
| 1,1-Dichloroethene                      | ND     | 1.0       |      | µg/L  | 1  | 8/5/2015 8:34:25 PM   | R27991       |
| Methylene Chloride                      | ND     | 3.0       |      | µg/L  | 1  | 8/5/2015 8:34:25 PM   | R27991       |
| 1,1,2,2-Tetrachloroethane               | ND     | 2.0       |      | µg/L  | 1  | 8/5/2015 8:34:25 PM   | R27991       |
| Tetrachloroethene (PCE)                 | ND     | 1.0       |      | µg/L  | 1  | 8/5/2015 8:34:25 PM   | R27991       |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                         |                                                   |
|--------------------|---------------------------------------------------------|---------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
|                    | D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
|                    | H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
|                    | ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
|                    | R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
|                    | S % Recovery outside of range due to dilution or matrix |                                                   |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1508065

Date Reported: 8/26/2015

CLIENT: Navajo Refining Company

Client Sample ID: R.O. Reject

Project: Monthly R.O. Reject

Collection Date: 8/3/2015 10:10:00 AM

Lab ID: 1508065-001

Matrix: AQUEOUS

Received Date: 8/4/2015 9:13:00 AM

| Analyses                              | Result | RL     | Qual | Units | DF | Date Analyzed       | Batch        |
|---------------------------------------|--------|--------|------|-------|----|---------------------|--------------|
| <b>EPA METHOD 8260B: VOLATILES</b>    |        |        |      |       |    |                     | Analyst: DJF |
| 1,1,1-Trichloroethane                 | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 8:34:25 PM | R27991       |
| 1,1,2-Trichloroethane                 | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 8:34:25 PM | R27991       |
| Trichloroethene (TCE)                 | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 8:34:25 PM | R27991       |
| Vinyl chloride                        | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 8:34:25 PM | R27991       |
| Xylenes, Total                        | ND     | 1.5    |      | µg/L  | 1  | 8/5/2015 8:34:25 PM | R27991       |
| Surr: 1,2-Dichloroethane-d4           | 96.6   | 70-130 |      | %REC  | 1  | 8/5/2015 8:34:25 PM | R27991       |
| Surr: 4-Bromofluorobenzene            | 112    | 70-130 |      | %REC  | 1  | 8/5/2015 8:34:25 PM | R27991       |
| Surr: Dibromofluoromethane            | 107    | 70-130 |      | %REC  | 1  | 8/5/2015 8:34:25 PM | R27991       |
| Surr: Toluene-d8                      | 104    | 70-130 |      | %REC  | 1  | 8/5/2015 8:34:25 PM | R27991       |
| <b>TOTAL PHENOLICS BY SW-846 9067</b> |        |        |      |       |    |                     | Analyst: SCC |
| Phenolics, Total Recoverable          | ND     | 2.5    |      | µg/L  | 1  | 8/6/2015            | 20629        |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |    |                                                       |    |                                                 |
|-------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| Qualifiers: | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|             | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|             | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|             | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|             | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|             | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

## Analytical Report

Lab Order 1508065

Date Reported: 8/26/2015

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Navajo Refining Company

Client Sample ID: Trip Blank

Project: Monthly R.O. Reject

Collection Date:

Lab ID: 1508065-002

Matrix: TRIP BLANK

Received Date: 8/4/2015 9:13:00 AM

| Analyses                                | Result | RL     | Qual | Units | DF | Date Analyzed       | Batch        |
|-----------------------------------------|--------|--------|------|-------|----|---------------------|--------------|
| <b>EPA METHOD 8015D: GASOLINE RANGE</b> |        |        |      |       |    |                     | Analyst: DJF |
| Gasoline Range Organics (GRO)           | ND     | 0.050  |      | mg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Surr: BFB                               | 97.5   | 70-130 |      | %REC  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| <b>EPA METHOD 8011/504.1: EDB</b>       |        |        |      |       |    |                     | Analyst: JME |
| 1,2-Dibromoethane                       | ND     | 0.010  |      | µg/L  | 1  | 8/7/2015 1:04:28 PM | 20627        |
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |        |      |       |    |                     | Analyst: DJF |
| Benzene                                 | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Toluene                                 | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Ethylbenzene                            | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Methyl tert-butyl ether (MTBE)          | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,2,4-Trimethylbenzene                  | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,3,5-Trimethylbenzene                  | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,2-Dichloroethane (EDC)                | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,2-Dibromoethane (EDB)                 | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Naphthalene                             | ND     | 2.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1-Methylnaphthalene                     | ND     | 4.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 2-Methylnaphthalene                     | ND     | 4.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Acetone                                 | ND     | 10     |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Bromobenzene                            | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Bromodichloromethane                    | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Bromoform                               | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Bromomethane                            | ND     | 3.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 2-Butanone                              | ND     | 10     |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Carbon disulfide                        | ND     | 10     |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Carbon Tetrachloride                    | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Chlorobenzene                           | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Chloroethane                            | ND     | 2.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Chloroform                              | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Chloromethane                           | ND     | 3.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 2-Chlorotoluene                         | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 4-Chlorotoluene                         | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| cis-1,2-DCE                             | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| cis-1,3-Dichloropropene                 | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,2-Dibromo-3-chloropropane             | ND     | 2.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Dibromochloromethane                    | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Dibromomethane                          | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,2-Dichlorobenzene                     | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,3-Dichlorobenzene                     | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,4-Dichlorobenzene                     | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                         |                                                   |
|--------------------|---------------------------------------------------------|---------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
|                    | D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
|                    | H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
|                    | ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
|                    | R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
|                    | S % Recovery outside of range due to dilution or matrix |                                                   |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1508065

Date Reported: 8/26/2015

CLIENT: Navajo Refining Company

Client Sample ID: Trip Blank

Project: Monthly R.O. Reject

Collection Date:

Lab ID: 1508065-002

Matrix: TRIP BLANK

Received Date: 8/4/2015 9:13:00 AM

| Analyses                           | Result | RL     | Qual | Units | DF | Date Analyzed       | Batch        |
|------------------------------------|--------|--------|------|-------|----|---------------------|--------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |        |      |       |    |                     | Analyst: DJF |
| Dichlorodifluoromethane            | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,1-Dichloroethane                 | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,1-Dichloroethene                 | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,2-Dichloropropane                | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,3-Dichloropropane                | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 2,2-Dichloropropane                | ND     | 2.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,1-Dichloropropene                | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Hexachlorobutadiene                | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 2-Hexanone                         | ND     | 10     |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Isopropylbenzene                   | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 4-Isopropyltoluene                 | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 4-Methyl-2-pentanone               | ND     | 10     |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Methylene Chloride                 | ND     | 3.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| n-Butylbenzene                     | ND     | 3.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| n-Propylbenzene                    | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| sec-Butylbenzene                   | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Styrene                            | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| tert-Butylbenzene                  | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,1,1,2-Tetrachloroethane          | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,1,2,2-Tetrachloroethane          | ND     | 2.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Tetrachloroethene (PCE)            | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| trans-1,2-DCE                      | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| trans-1,3-Dichloropropene          | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,2,3-Trichlorobenzene             | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,2,4-Trichlorobenzene             | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,1,1-Trichloroethane              | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,1,2-Trichloroethane              | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Trichloroethene (TCE)              | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Trichlorofluoromethane             | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| 1,2,3-Trichloropropane             | ND     | 2.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Vinyl chloride                     | ND     | 1.0    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Xylenes, Total                     | ND     | 1.5    |      | µg/L  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Surr: 1,2-Dichloroethane-d4        | 104    | 70-130 |      | %REC  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Surr: 4-Bromofluorobenzene         | 106    | 70-130 |      | %REC  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Surr: Dibromofluoromethane         | 109    | 70-130 |      | %REC  | 1  | 8/5/2015 9:02:06 PM | R27991       |
| Surr: Toluene-d8                   | 102    | 70-130 |      | %REC  | 1  | 8/5/2015 9:02:06 PM | R27991       |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                         |                                                   |
|--------------------|---------------------------------------------------------|---------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
|                    | D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
|                    | H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
|                    | ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
|                    | R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
|                    | S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|                       |                                |        |                                                     |             |                    |          |           |      |          |      |
|-----------------------|--------------------------------|--------|-----------------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>MB</b>   | SampType: <b>MBLK</b>          |        | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |             |                    |          |           |      |          |      |
| Client ID: <b>PBW</b> | Batch ID: <b>R27986</b>        |        | RunNo: <b>27986</b>                                 |             |                    |          |           |      |          |      |
| Prep Date:            | Analysis Date: <b>8/5/2015</b> |        | SeqNo: <b>842241</b>                                |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte               | Result                         | PQL    | SPK value                                           | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum              | ND                             | 0.020  |                                                     |             |                    |          |           |      |          |      |
| Barium                | ND                             | 0.0020 |                                                     |             |                    |          |           |      |          |      |
| Boron                 | ND                             | 0.040  |                                                     |             |                    |          |           |      |          |      |
| Cadmium               | ND                             | 0.0020 |                                                     |             |                    |          |           |      |          |      |
| Chromium              | ND                             | 0.0060 |                                                     |             |                    |          |           |      |          |      |
| Cobalt                | ND                             | 0.0060 |                                                     |             |                    |          |           |      |          |      |
| Manganese             | ND                             | 0.0020 |                                                     |             |                    |          |           |      |          |      |
| Molybdenum            | ND                             | 0.0080 |                                                     |             |                    |          |           |      |          |      |
| Nickel                | ND                             | 0.010  |                                                     |             |                    |          |           |      |          |      |
| Silver                | ND                             | 0.0050 |                                                     |             |                    |          |           |      |          |      |

|                        |                                |        |                                                     |             |                    |          |           |      |          |      |
|------------------------|--------------------------------|--------|-----------------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>LCS</b>   | SampType: <b>LCS</b>           |        | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |             |                    |          |           |      |          |      |
| Client ID: <b>LCSW</b> | Batch ID: <b>R27986</b>        |        | RunNo: <b>27986</b>                                 |             |                    |          |           |      |          |      |
| Prep Date:             | Analysis Date: <b>8/5/2015</b> |        | SeqNo: <b>842242</b>                                |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                | Result                         | PQL    | SPK value                                           | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum               | 0.52                           | 0.020  | 0.5000                                              | 0           | 104                | 85       | 115       |      |          |      |
| Barium                 | 0.49                           | 0.0020 | 0.5000                                              | 0           | 98.4               | 85       | 115       |      |          |      |
| Boron                  | 0.51                           | 0.040  | 0.5000                                              | 0           | 102                | 85       | 115       |      |          |      |
| Cadmium                | 0.49                           | 0.0020 | 0.5000                                              | 0           | 98.2               | 85       | 115       |      |          |      |
| Chromium               | 0.49                           | 0.0060 | 0.5000                                              | 0           | 98.1               | 85       | 115       |      |          |      |
| Cobalt                 | 0.47                           | 0.0060 | 0.5000                                              | 0           | 93.6               | 85       | 115       |      |          |      |
| Manganese              | 0.48                           | 0.0020 | 0.5000                                              | 0           | 95.6               | 85       | 115       |      |          |      |
| Molybdenum             | 0.51                           | 0.0080 | 0.5000                                              | 0           | 102                | 85       | 115       |      |          |      |
| Nickel                 | 0.47                           | 0.010  | 0.5000                                              | 0           | 94.3               | 85       | 115       |      |          |      |
| Silver                 | 0.10                           | 0.0050 | 0.1000                                              | 0           | 99.7               | 85       | 115       |      |          |      |

|                           |                                |        |                                                     |             |                    |          |           |      |          |      |
|---------------------------|--------------------------------|--------|-----------------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>LLCS</b>     | SampType: <b>LCSLL</b>         |        | TestCode: <b>EPA Method 200.7: Dissolved Metals</b> |             |                    |          |           |      |          |      |
| Client ID: <b>BatchQC</b> | Batch ID: <b>R27986</b>        |        | RunNo: <b>27986</b>                                 |             |                    |          |           |      |          |      |
| Prep Date:                | Analysis Date: <b>8/5/2015</b> |        | SeqNo: <b>842243</b>                                |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                   | Result                         | PQL    | SPK value                                           | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum                  | ND                             | 0.020  | 0.01000                                             | 0           | 115                | 50       | 150       |      |          |      |
| Barium                    | ND                             | 0.0020 | 0.002000                                            | 0           | 85.0               | 50       | 150       |      |          |      |
| Boron                     | ND                             | 0.040  | 0.04000                                             | 0           | 97.3               | 50       | 150       |      |          |      |
| Cadmium                   | ND                             | 0.0020 | 0.002000                                            | 0           | 95.5               | 50       | 150       |      |          |      |
| Chromium                  | 0.0062                         | 0.0060 | 0.006000                                            | 0           | 104                | 50       | 150       |      |          |      |
| Cobalt                    | ND                             | 0.0060 | 0.006000                                            | 0           | 99.3               | 50       | 150       |      |          |      |
| Manganese                 | 0.0026                         | 0.0020 | 0.002000                                            | 0           | 131                | 50       | 150       |      |          |      |
| Molybdenum                | 0.0087                         | 0.0080 | 0.008000                                            | 0           | 109                | 50       | 150       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|            |         |                |           |             |                                    |          |           |      |          |      |
|------------|---------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LLLCS   | SampType:      | LCSLL     | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | BatchQC | Batch ID:      | R27986    | RunNo:      | 27986                              |          |           |      |          |      |
| Prep Date: |         | Analysis Date: | 8/5/2015  | SeqNo:      | 842243                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Nickel     | ND      | 0.010          | 0.005000  | 0           | 93.4                               | 50       | 150       |      |          |      |
| Silver     | ND      | 0.0050         | 0.005000  | 0           | 93.8                               | 50       | 150       |      |          |      |

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R27986    | RunNo:      | 27986                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/5/2015  | SeqNo:      | 842244                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum   | ND     | 0.020          |           |             |                                    |          |           |      |          |      |
| Barium     | ND     | 0.0020         |           |             |                                    |          |           |      |          |      |
| Boron      | ND     | 0.040          |           |             |                                    |          |           |      |          |      |
| Cadmium    | ND     | 0.0020         |           |             |                                    |          |           |      |          |      |
| Chromium   | ND     | 0.0060         |           |             |                                    |          |           |      |          |      |
| Cobalt     | ND     | 0.0060         |           |             |                                    |          |           |      |          |      |
| Manganese  | ND     | 0.0020         |           |             |                                    |          |           |      |          |      |
| Molybdenum | ND     | 0.0080         |           |             |                                    |          |           |      |          |      |
| Nickel     | ND     | 0.010          |           |             |                                    |          |           |      |          |      |
| Silver     | ND     | 0.0050         |           |             |                                    |          |           |      |          |      |

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | R27986    | RunNo:      | 27986                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/5/2015  | SeqNo:      | 842245                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum   | 0.52   | 0.020          | 0.5000    | 0           | 103                                | 85       | 115       |      |          |      |
| Barium     | 0.50   | 0.0020         | 0.5000    | 0           | 99.0                               | 85       | 115       |      |          |      |
| Boron      | 0.51   | 0.040          | 0.5000    | 0           | 103                                | 85       | 115       |      |          |      |
| Cadmium    | 0.50   | 0.0020         | 0.5000    | 0           | 99.2                               | 85       | 115       |      |          |      |
| Chromium   | 0.49   | 0.0060         | 0.5000    | 0           | 98.2                               | 85       | 115       |      |          |      |
| Cobalt     | 0.47   | 0.0060         | 0.5000    | 0           | 94.6                               | 85       | 115       |      |          |      |
| Manganese  | 0.48   | 0.0020         | 0.5000    | 0           | 96.3                               | 85       | 115       |      |          |      |
| Molybdenum | 0.51   | 0.0080         | 0.5000    | 0           | 103                                | 85       | 115       |      |          |      |
| Nickel     | 0.47   | 0.010          | 0.5000    | 0           | 94.8                               | 85       | 115       |      |          |      |
| Silver     | 0.10   | 0.0050         | 0.1000    | 0           | 100                                | 85       | 115       |      |          |      |

|            |         |                |           |             |                                    |          |           |      |          |      |
|------------|---------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LLLCS   | SampType:      | LCSLL     | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | BatchQC | Batch ID:      | R27986    | RunNo:      | 27986                              |          |           |      |          |      |
| Prep Date: |         | Analysis Date: | 8/5/2015  | SeqNo:      | 842246                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

### Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|            |         |                |           |             |                                    |          |           |      |          |      |
|------------|---------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LLLCS   | SampType:      | LCSLL     | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | BatchQC | Batch ID:      | R27986    | RunNo:      | 27986                              |          |           |      |          |      |
| Prep Date: |         | Analysis Date: | 8/5/2015  | SeqNo:      | 842246                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Aluminum   | ND      | 0.020          | 0.01000   | 0           | 112                                | 50       | 150       |      |          |      |
| Barium     | ND      | 0.0020         | 0.002000  | 0           | 98.5                               | 50       | 150       |      |          |      |
| Boron      | ND      | 0.040          | 0.04000   | 0           | 99.7                               | 50       | 150       |      |          |      |
| Cadmium    | ND      | 0.0020         | 0.002000  | 0           | 77.5                               | 50       | 150       |      |          |      |
| Chromium   | 0.0062  | 0.0060         | 0.006000  | 0           | 103                                | 50       | 150       |      |          |      |
| Cobalt     | ND      | 0.0060         | 0.006000  | 0           | 99.8                               | 50       | 150       |      |          |      |
| Manganese  | 0.0021  | 0.0020         | 0.002000  | 0           | 104                                | 50       | 150       |      |          |      |
| Molybdenum | 0.0093  | 0.0080         | 0.008000  | 0           | 116                                | 50       | 150       |      |          |      |
| Nickel     | ND      | 0.010          | 0.005000  | 0           | 97.4                               | 50       | 150       |      |          |      |
| Silver     | ND      | 0.0050         | 0.005000  | 0           | 95.4                               | 50       | 150       |      |          |      |

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | C28013    | RunNo:      | 28013                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/6/2015  | SeqNo:      | 843253                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Copper     | ND     | 0.0060         |           |             |                                    |          |           |      |          |      |
| Zinc       | ND     | 0.010          |           |             |                                    |          |           |      |          |      |

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | C28013    | RunNo:      | 28013                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/6/2015  | SeqNo:      | 843254                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Copper     | 0.50   | 0.0060         | 0.5000    | 0           | 99.7                               | 85       | 115       |      |          |      |
| Zinc       | 0.50   | 0.010          | 0.5000    | 0           | 101                                | 85       | 115       |      |          |      |

|            |         |                |           |             |                                    |          |           |      |          |      |
|------------|---------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LLLCS   | SampType:      | LCSLL     | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | BatchQC | Batch ID:      | C28013    | RunNo:      | 28013                              |          |           |      |          |      |
| Prep Date: |         | Analysis Date: | 8/6/2015  | SeqNo:      | 843255                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Copper     | 0.0063  | 0.0060         | 0.006000  | 0           | 105                                | 50       | 150       |      |          |      |
| Zinc       | ND      | 0.010          | 0.005000  | 0           | 128                                | 50       | 150       |      |          |      |

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R28044    | RunNo:      | 28044                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/7/2015  | SeqNo:      | 844435                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

### Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R28044    | RunNo:      | 28044                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/7/2015  | SeqNo:      | 844435                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Iron       | ND     | 0.020          |           |             |                                    |          |           |      |          |      |

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | R28044    | RunNo:      | 28044                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/7/2015  | SeqNo:      | 844436                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Iron       | 0.51   | 0.020          | 0.5000    | 0           | 102                                | 85       | 115       |      |          |      |

|            |         |                |           |             |                                    |          |           |      |          |      |
|------------|---------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LLCS    | SampType:      | LCSLL     | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | BatchQC | Batch ID:      | R28044    | RunNo:      | 28044                              |          |           |      |          |      |
| Prep Date: |         | Analysis Date: | 8/7/2015  | SeqNo:      | 844437                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Iron       | 0.026   | 0.020          | 0.02000   | 0           | 131                                | 50       | 150       |      |          |      |

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R28044    | RunNo:      | 28044                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/7/2015  | SeqNo:      | 844438                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Iron       | ND     | 0.020          |           |             |                                    |          |           |      |          |      |

|            |        |                |           |             |                                    |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | R28044    | RunNo:      | 28044                              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/7/2015  | SeqNo:      | 844439                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Iron       | 0.49   | 0.020          | 0.5000    | 0           | 99.0                               | 85       | 115       |      |          |      |

|            |         |                |           |             |                                    |          |           |      |          |      |
|------------|---------|----------------|-----------|-------------|------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LLCS    | SampType:      | LCSLL     | TestCode:   | EPA Method 200.7: Dissolved Metals |          |           |      |          |      |
| Client ID: | BatchQC | Batch ID:      | R28044    | RunNo:      | 28044                              |          |           |      |          |      |
| Prep Date: |         | Analysis Date: | 8/7/2015  | SeqNo:      | 844440                             | Units:   | mg/L      |      |          |      |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Iron       | 0.020   | 0.020          | 0.02000   | 0           | 101                                | 50       | 150       |      |          |      |

## Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|            |                |         |                |             |      |           |                             |      |          |      |  |
|------------|----------------|---------|----------------|-------------|------|-----------|-----------------------------|------|----------|------|--|
| Sample ID  | 1508065-001GMS |         | SampType:      | MS          |      | TestCode: | EPA 200.8: Dissolved Metals |      |          |      |  |
| Client ID: | R.O. Reject    |         | Batch ID:      | R28115      |      | RunNo:    | 28115                       |      |          |      |  |
| Prep Date: |                |         | Analysis Date: | 8/11/2015   |      | SeqNo:    | 847552                      |      | Units:   | mg/L |  |
| Analyte    | Result         | PQL     | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                   | %RPD | RPDLimit | Qual |  |
| Lead       | 0.013          | 0.00050 | 0.01250        | 0           | 107  | 70        | 130                         |      |          |      |  |
| Selenium   | 0.031          | 0.0010  | 0.02500        | 0.006711    | 99.1 | 70        | 130                         |      |          |      |  |
| Uranium    | 0.019          | 0.00050 | 0.01250        | 0.004729    | 117  | 70        | 130                         |      |          |      |  |

|            |                 |         |                |             |      |           |                             |       |          |      |  |
|------------|-----------------|---------|----------------|-------------|------|-----------|-----------------------------|-------|----------|------|--|
| Sample ID  | 1508065-001GMSD |         | SampType:      | MSD         |      | TestCode: | EPA 200.8: Dissolved Metals |       |          |      |  |
| Client ID: | R.O. Reject     |         | Batch ID:      | R28115      |      | RunNo:    | 28115                       |       |          |      |  |
| Prep Date: |                 |         | Analysis Date: | 8/11/2015   |      | SeqNo:    | 847553                      |       | Units:   | mg/L |  |
| Analyte    | Result          | PQL     | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                   | %RPD  | RPDLimit | Qual |  |
| Lead       | 0.013           | 0.00050 | 0.01250        | 0           | 105  | 70        | 130                         | 2.13  | 20       |      |  |
| Selenium   | 0.032           | 0.0010  | 0.02500        | 0.006711    | 100  | 70        | 130                         | 0.805 | 20       |      |  |
| Uranium    | 0.019           | 0.00050 | 0.01250        | 0.004729    | 115  | 70        | 130                         | 1.42  | 20       |      |  |

|            |        |         |                |             |      |           |                             |      |          |      |  |
|------------|--------|---------|----------------|-------------|------|-----------|-----------------------------|------|----------|------|--|
| Sample ID  | LCS    |         | SampType:      | LCS         |      | TestCode: | EPA 200.8: Dissolved Metals |      |          |      |  |
| Client ID: | LCSW   |         | Batch ID:      | R28115      |      | RunNo:    | 28115                       |      |          |      |  |
| Prep Date: |        |         | Analysis Date: | 8/11/2015   |      | SeqNo:    | 847560                      |      | Units:   | mg/L |  |
| Analyte    | Result | PQL     | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                   | %RPD | RPDLimit | Qual |  |
| Lead       | 0.012  | 0.00050 | 0.01250        | 0           | 99.5 | 85        | 115                         |      |          |      |  |
| Selenium   | 0.025  | 0.0010  | 0.02500        | 0           | 101  | 85        | 115                         |      |          |      |  |
| Uranium    | 0.012  | 0.00050 | 0.01250        | 0           | 99.9 | 85        | 115                         |      |          |      |  |

|            |        |         |                          |             |                                       |          |             |      |          |      |
|------------|--------|---------|--------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |         | SampType: LCS            |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | LCSW   |         | Batch ID: R28115         |             | RunNo: 28115                          |          |             |      |          |      |
| Prep Date: |        |         | Analysis Date: 8/11/2015 |             | SeqNo: 847561                         |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL     | SPK value                | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | 0.012  | 0.00050 | 0.01250                  | 0           | 98.8                                  | 85       | 115         |      |          |      |
| Selenium   | 0.025  | 0.0010  | 0.02500                  | 0           | 101                                   | 85       | 115         |      |          |      |
| Uranium    | 0.012  | 0.00050 | 0.01250                  | 0           | 99.1                                  | 85       | 115         |      |          |      |

|            |         |                |           |             |                             |          |           |      |          |      |
|------------|---------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | LLLCS   | SampType:      | LCSLL     | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | BatchQC | Batch ID:      | R28115    | RunNo:      | 28115                       |          |           |      |          |      |
| Prep Date: |         | Analysis Date: | 8/11/2015 | SeqNo:      | 847562                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Lead       | 0.00051 | 0.00050        | 0.0005000 | 0           | 103                         | 50       | 150       |      |          |      |
| Selenium   | 0.0010  | 0.0010         | 0.001000  | 0           | 103                         | 50       | 150       |      |          |      |
| Uranium    | 0.00051 | 0.00050        | 0.0005000 | 0           | 103                         | 50       | 150       |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|            |         |                |           |             |                             |          |           |      |          |      |
|------------|---------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | LLLCS   | SampType:      | LCSLL     | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | BatchQC | Batch ID:      | R28115    | RunNo:      | 28115                       |          |           |      |          |      |
| Prep Date: |         | Analysis Date: | 8/11/2015 | SeqNo:      | 847563                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result  | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Lead       | 0.00053 | 0.00050        | 0.0005000 | 0           | 105                         | 50       | 150       |      |          |      |
| Selenium   | 0.0011  | 0.0010         | 0.001000  | 0           | 113                         | 50       | 150       |      |          |      |
| Uranium    | 0.00052 | 0.00050        | 0.0005000 | 0           | 104                         | 50       | 150       |      |          |      |

|            |        |                |           |             |                             |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R28115    | RunNo:      | 28115                       |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/11/2015 | SeqNo:      | 847564                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Lead       | ND     | 0.00050        |           |             |                             |          |           |      |          |      |
| Selenium   | ND     | 0.0010         |           |             |                             |          |           |      |          |      |
| Uranium    | ND     | 0.00050        |           |             |                             |          |           |      |          |      |

|            |        |                |           |             |                             |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R28115    | RunNo:      | 28115                       |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/11/2015 | SeqNo:      | 847565                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Lead       | ND     | 0.00050        |           |             |                             |          |           |      |          |      |
| Selenium   | ND     | 0.0010         |           |             |                             |          |           |      |          |      |
| Uranium    | ND     | 0.00050        |           |             |                             |          |           |      |          |      |

|            |                |                |           |             |                             |          |           |      |          |      |
|------------|----------------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1508065-001GMS | SampType:      | MS        | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | R.O. Reject    | Batch ID:      | D28151    | RunNo:      | 28151                       |          |           |      |          |      |
| Prep Date: |                | Analysis Date: | 8/12/2015 | SeqNo:      | 848111                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result         | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic    | 0.12           | 0.0050         | 0.1250    | 0.001284    | 97.9                        | 70       | 130       |      |          |      |

|            |        |                |           |             |                             |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS       | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | D28151    | RunNo:      | 28151                       |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/12/2015 | SeqNo:      | 848117                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic    | 0.024  | 0.0010         | 0.02500   | 0           | 97.0                        | 85       | 115       |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|            |         |                          |           |             |                                       |          |             |      |          |      |
|------------|---------|--------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LLCS    | SampType: LCSLL          |           |             | TestCode: EPA 200.8: Dissolved Metals |          |             |      |          |      |
| Client ID: | BatchQC | Batch ID: D28151         |           |             | RunNo: 28151                          |          |             |      |          |      |
| Prep Date: |         | Analysis Date: 8/12/2015 |           |             | SeqNo: 848119                         |          | Units: mg/L |      |          |      |
| Analyte    | Result  | PQL                      | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Arsenic    | 0.0010  | 0.0010                   | 0.001000  | 0           | 104                                   | 50       | 150         |      |          |      |

|            |        |                |           |             |                             |          |           |      |          |      |
|------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK      | TestCode:   | EPA 200.8: Dissolved Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | D28151    | RunNo:      | 28151                       |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 8/12/2015 | SeqNo:      | 848122                      | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic    | ND     | 0.0010         |           |             |                             |          |           |      |          |      |

## Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|            |          |                |           |             |                           |          |           |      |          |      |
|------------|----------|----------------|-----------|-------------|---------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB-20665 | SampType:      | MBLK      | TestCode:   | EPA Method 245.1: Mercury |          |           |      |          |      |
| Client ID: | PBW      | Batch ID:      | 20665     | RunNo:      | 28038                     |          |           |      |          |      |
| Prep Date: | 8/7/2015 | Analysis Date: | 8/7/2015  | SeqNo:      | 844199                    | Units:   | mg/L      |      |          |      |
| Analyte    | Result   | PQL            | SPK value | SPK Ref Val | %REC                      | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | ND       | 0.00020        |           |             |                           |          |           |      |          |      |

|            |           |                |           |             |                           |          |           |      |          |      |
|------------|-----------|----------------|-----------|-------------|---------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS-20665 | SampType:      | LCS       | TestCode:   | EPA Method 245.1: Mercury |          |           |      |          |      |
| Client ID: | LCSW      | Batch ID:      | 20665     | RunNo:      | 28038                     |          |           |      |          |      |
| Prep Date: | 8/7/2015  | Analysis Date: | 8/7/2015  | SeqNo:      | 844200                    | Units:   | mg/L      |      |          |      |
| Analyte    | Result    | PQL            | SPK value | SPK Ref Val | %REC                      | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | 0.0050    | 0.00020        | 0.005000  | 0           | 99.8                      | 80       | 120       |      |          |      |

## Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|                          |                                |                                           |           |             |      |          |           |      |          |      |
|--------------------------|--------------------------------|-------------------------------------------|-----------|-------------|------|----------|-----------|------|----------|------|
| Sample ID <b>MB</b>      | SampType: <b>MBLK</b>          | TestCode: <b>EPA Method 300.0: Anions</b> |           |             |      |          |           |      |          |      |
| Client ID: <b>PBW</b>    | Batch ID: <b>R27968</b>        | RunNo: <b>27968</b>                       |           |             |      |          |           |      |          |      |
| Prep Date:               | Analysis Date: <b>8/5/2015</b> | SeqNo: <b>841566</b> Units: <b>mg/L</b>   |           |             |      |          |           |      |          |      |
| Analyte                  | Result                         | PQL                                       | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride                 | ND                             | 0.10                                      |           |             |      |          |           |      |          |      |
| Chloride                 | ND                             | 0.50                                      |           |             |      |          |           |      |          |      |
| Nitrogen, Nitrate (As N) | ND                             | 0.10                                      |           |             |      |          |           |      |          |      |

|                          |                                |                                           |           |             |      |          |           |      |          |      |
|--------------------------|--------------------------------|-------------------------------------------|-----------|-------------|------|----------|-----------|------|----------|------|
| Sample ID <b>LCS</b>     | SampType: <b>LCS</b>           | TestCode: <b>EPA Method 300.0: Anions</b> |           |             |      |          |           |      |          |      |
| Client ID: <b>LCSW</b>   | Batch ID: <b>R27968</b>        | RunNo: <b>27968</b>                       |           |             |      |          |           |      |          |      |
| Prep Date:               | Analysis Date: <b>8/5/2015</b> | SeqNo: <b>841567</b> Units: <b>mg/L</b>   |           |             |      |          |           |      |          |      |
| Analyte                  | Result                         | PQL                                       | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride                 | 0.52                           | 0.10                                      | 0.5000    | 0           | 104  | 90       | 110       |      |          |      |
| Chloride                 | 4.8                            | 0.50                                      | 5.000     | 0           | 96.4 | 90       | 110       |      |          |      |
| Nitrogen, Nitrate (As N) | 2.5                            | 0.10                                      | 2.500     | 0           | 101  | 90       | 110       |      |          |      |

|                       |                                 |                                           |           |             |      |          |           |      |          |      |
|-----------------------|---------------------------------|-------------------------------------------|-----------|-------------|------|----------|-----------|------|----------|------|
| Sample ID <b>MB</b>   | SampType: <b>MBLK</b>           | TestCode: <b>EPA Method 300.0: Anions</b> |           |             |      |          |           |      |          |      |
| Client ID: <b>PBW</b> | Batch ID: <b>R28192</b>         | RunNo: <b>28192</b>                       |           |             |      |          |           |      |          |      |
| Prep Date:            | Analysis Date: <b>8/13/2015</b> | SeqNo: <b>849498</b> Units: <b>mg/L</b>   |           |             |      |          |           |      |          |      |
| Analyte               | Result                          | PQL                                       | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Sulfate               | ND                              | 0.50                                      |           |             |      |          |           |      |          |      |

|                        |                                 |                                           |           |             |      |          |           |      |          |      |
|------------------------|---------------------------------|-------------------------------------------|-----------|-------------|------|----------|-----------|------|----------|------|
| Sample ID <b>LCS</b>   | SampType: <b>LCS</b>            | TestCode: <b>EPA Method 300.0: Anions</b> |           |             |      |          |           |      |          |      |
| Client ID: <b>LCSW</b> | Batch ID: <b>R28192</b>         | RunNo: <b>28192</b>                       |           |             |      |          |           |      |          |      |
| Prep Date:             | Analysis Date: <b>8/13/2015</b> | SeqNo: <b>849499</b> Units: <b>mg/L</b>   |           |             |      |          |           |      |          |      |
| Analyte                | Result                          | PQL                                       | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Sulfate                | 9.9                             | 0.50                                      | 10.00     | 0           | 99.0 | 90       | 110       |      |          |      |

### Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|                   |          |                |           |             |                            |          |           |      |          |      |
|-------------------|----------|----------------|-----------|-------------|----------------------------|----------|-----------|------|----------|------|
| Sample ID         | MB-20627 | SampType:      | MBLK      | TestCode:   | EPA Method 8011/504.1: EDB |          |           |      |          |      |
| Client ID:        | PBW      | Batch ID:      | 20627     | RunNo:      | 28045                      |          |           |      |          |      |
| Prep Date:        | 8/6/2015 | Analysis Date: | 8/7/2015  | SeqNo:      | 844775                     | Units:   | µg/L      |      |          |      |
| Analyte           | Result   | PQL            | SPK value | SPK Ref Val | %REC                       | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | ND       | 0.010          |           |             |                            |          |           |      |          |      |

|                   |           |                |           |             |                            |          |           |      |          |      |
|-------------------|-----------|----------------|-----------|-------------|----------------------------|----------|-----------|------|----------|------|
| Sample ID         | LCS-20627 | SampType:      | LCS       | TestCode:   | EPA Method 8011/504.1: EDB |          |           |      |          |      |
| Client ID:        | LCSW      | Batch ID:      | 20627     | RunNo:      | 28045                      |          |           |      |          |      |
| Prep Date:        | 8/6/2015  | Analysis Date: | 8/7/2015  | SeqNo:      | 844776                     | Units:   | µg/L      |      |          |      |
| Analyte           | Result    | PQL            | SPK value | SPK Ref Val | %REC                       | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | 0.11      | 0.010          | 0.1000    | 0           | 110                        | 70       | 130       |      |          |      |

|                   |                |                |           |             |                            |          |           |      |          |      |
|-------------------|----------------|----------------|-----------|-------------|----------------------------|----------|-----------|------|----------|------|
| Sample ID         | 1508065-001BMS | SampType:      | MS        | TestCode:   | EPA Method 8011/504.1: EDB |          |           |      |          |      |
| Client ID:        | R.O. Reject    | Batch ID:      | 20627     | RunNo:      | 28045                      |          |           |      |          |      |
| Prep Date:        | 8/6/2015       | Analysis Date: | 8/7/2015  | SeqNo:      | 844786                     | Units:   | µg/L      |      |          |      |
| Analyte           | Result         | PQL            | SPK value | SPK Ref Val | %REC                       | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | 0.13           | 0.010          | 0.1000    | 0           | 127                        | 45.7     | 164       |      |          |      |

|                   |                 |                |           |             |                            |          |           |      |          |      |
|-------------------|-----------------|----------------|-----------|-------------|----------------------------|----------|-----------|------|----------|------|
| Sample ID         | 1508065-001BMSD | SampType:      | MSD       | TestCode:   | EPA Method 8011/504.1: EDB |          |           |      |          |      |
| Client ID:        | R.O. Reject     | Batch ID:      | 20627     | RunNo:      | 28045                      |          |           |      |          |      |
| Prep Date:        | 8/6/2015        | Analysis Date: | 8/7/2015  | SeqNo:      | 844787                     | Units:   | µg/L      |      |          |      |
| Analyte           | Result          | PQL            | SPK value | SPK Ref Val | %REC                       | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| 1,2-Dibromoethane | 0.14            | 0.010          | 0.1000    | 0           | 135                        | 45.7     | 164       | 6.11 | 20       |      |

### Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|                             |           |     |                |             |      |           |                                  |      |             |      |  |
|-----------------------------|-----------|-----|----------------|-------------|------|-----------|----------------------------------|------|-------------|------|--|
| Sample ID                   | LCS-20617 |     | SampType:      | LCS         |      | TestCode: | EPA Method 8015M/D: Diesel Range |      |             |      |  |
| Client ID:                  | LCSW      |     | Batch ID:      | 20617       |      | RunNo:    | 27957                            |      |             |      |  |
| Prep Date:                  | 8/5/2015  |     | Analysis Date: | 8/5/2015    |      | SeqNo:    | 842448                           |      | Units: mg/L |      |  |
| Analyte                     | Result    | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                        | %RPD | RPDLimit    | Qual |  |
| Diesel Range Organics (DRO) | 5.9       | 1.0 | 5.000          | 0           | 118  | 60.1      | 156                              |      |             |      |  |
| Surr: DNOP                  | 0.52      |     | 0.5000         |             | 104  | 72        | 136                              |      |             |      |  |

|                                |          |     |                |             |      |           |                                  |      |             |      |  |
|--------------------------------|----------|-----|----------------|-------------|------|-----------|----------------------------------|------|-------------|------|--|
| Sample ID                      | MB-20617 |     | SampType:      | MBLK        |      | TestCode: | EPA Method 8015M/D: Diesel Range |      |             |      |  |
| Client ID:                     | PBW      |     | Batch ID:      | 20617       |      | RunNo:    | 27957                            |      |             |      |  |
| Prep Date:                     | 8/5/2015 |     | Analysis Date: | 8/5/2015    |      | SeqNo:    | 842468                           |      | Units: mg/L |      |  |
| Analyte                        | Result   | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                        | %RPD | RPDLimit    | Qual |  |
| Diesel Range Organics (DRO)    | ND       | 1.0 |                |             |      |           |                                  |      |             |      |  |
| Motor Oil Range Organics (MRO) | ND       | 5.0 |                |             |      |           |                                  |      |             |      |  |
| Surr: DNOP                     | 0.95     |     | 1.000          |             | 95.5 | 72        | 136                              |      |             |      |  |

## Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|                            |          |     |                |             |      |           |                        |      |             |      |
|----------------------------|----------|-----|----------------|-------------|------|-----------|------------------------|------|-------------|------|
| Sample ID                  | MB-20661 |     | SampType:      | MBLK        |      | TestCode: | EPA Method 8082: PCB's |      |             |      |
| Client ID:                 | PBW      |     | Batch ID:      | 20661       |      | RunNo:    | 28049                  |      |             |      |
| Prep Date:                 | 8/7/2015 |     | Analysis Date: | 8/10/2015   |      | SeqNo:    | 845110                 |      | Units: µg/L |      |
| Analyte                    | Result   | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit              | %RPD | RPDLimit    | Qual |
| Aroclor 1016               | ND       | 1.0 |                |             |      |           |                        |      |             |      |
| Aroclor 1221               | ND       | 1.0 |                |             |      |           |                        |      |             |      |
| Aroclor 1232               | ND       | 1.0 |                |             |      |           |                        |      |             |      |
| Aroclor 1242               | ND       | 1.0 |                |             |      |           |                        |      |             |      |
| Aroclor 1248               | ND       | 1.0 |                |             |      |           |                        |      |             |      |
| Aroclor 1254               | ND       | 1.0 |                |             |      |           |                        |      |             |      |
| Aroclor 1260               | ND       | 1.0 |                |             |      |           |                        |      |             |      |
| Surr: Decachlorobiphenyl   | 1.8      |     | 2.500          |             | 73.6 | 44.5      | 110                    |      |             |      |
| Surr: Tetrachloro-m-xylene | 2.3      |     | 2.500          |             | 90.4 | 31.8      | 95.7                   |      |             |      |

|                            |           |     |                |             |      |           |                        |      |             |      |
|----------------------------|-----------|-----|----------------|-------------|------|-----------|------------------------|------|-------------|------|
| Sample ID                  | LCS-20661 |     | SampType:      | LCS         |      | TestCode: | EPA Method 8082: PCB's |      |             |      |
| Client ID:                 | LCSW      |     | Batch ID:      | 20661       |      | RunNo:    | 28049                  |      |             |      |
| Prep Date:                 | 8/7/2015  |     | Analysis Date: | 8/10/2015   |      | SeqNo:    | 845133                 |      | Units: µg/L |      |
| Analyte                    | Result    | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit              | %RPD | RPDLimit    | Qual |
| Aroclor 1016               | 5.9       | 1.0 | 5.000          | 0           | 117  | 9.01      | 142                    |      |             |      |
| Aroclor 1260               | 6.0       | 1.0 | 5.000          | 0           | 119  | 25.6      | 164                    |      |             |      |
| Surr: Decachlorobiphenyl   | 2.2       |     | 2.500          |             | 89.2 | 44.5      | 110                    |      |             |      |
| Surr: Tetrachloro-m-xylene | 2.7       |     | 2.500          |             | 107  | 31.8      | 95.7                   |      |             | S    |

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
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ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|                                |        |                         |           |                                       |      |             |           |      |          |      |
|--------------------------------|--------|-------------------------|-----------|---------------------------------------|------|-------------|-----------|------|----------|------|
| Sample ID                      | RB     | SampType: MBLK          |           | TestCode: EPA Method 8260B: VOLATILES |      |             |           |      |          |      |
| Client ID:                     | PBW    | Batch ID: R27991        |           | RunNo: 27991                          |      |             |           |      |          |      |
| Prep Date:                     |        | Analysis Date: 8/5/2015 |           | SeqNo: 842681                         |      | Units: µg/L |           |      |          |      |
| Analyte                        | Result | PQL                     | SPK value | SPK Ref Val                           | %REC | LowLimit    | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                        | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| Toluene                        | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| Ethylbenzene                   | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,2,4-Trimethylbenzene         | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,3,5-Trimethylbenzene         | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| Naphthalene                    | ND     | 2.0                     |           |                                       |      |             |           |      |          |      |
| 1-Methylnaphthalene            | ND     | 4.0                     |           |                                       |      |             |           |      |          |      |
| 2-Methylnaphthalene            | ND     | 4.0                     |           |                                       |      |             |           |      |          |      |
| Acetone                        | ND     | 10                      |           |                                       |      |             |           |      |          |      |
| Bromobenzene                   | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| Bromodichloromethane           | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| Bromoform                      | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| Bromomethane                   | ND     | 3.0                     |           |                                       |      |             |           |      |          |      |
| 2-Butanone                     | ND     | 10                      |           |                                       |      |             |           |      |          |      |
| Carbon disulfide               | ND     | 10                      |           |                                       |      |             |           |      |          |      |
| Carbon Tetrachloride           | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| Chlorobenzene                  | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| Chloroethane                   | ND     | 2.0                     |           |                                       |      |             |           |      |          |      |
| Chloroform                     | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| Chloromethane                  | ND     | 3.0                     |           |                                       |      |             |           |      |          |      |
| 2-Chlorotoluene                | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| 4-Chlorotoluene                | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| cis-1,2-DCE                    | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| cis-1,3-Dichloropropene        | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND     | 2.0                     |           |                                       |      |             |           |      |          |      |
| Dibromochloromethane           | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| Dibromomethane                 | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,2-Dichlorobenzene            | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,3-Dichlorobenzene            | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,4-Dichlorobenzene            | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| Dichlorodifluoromethane        | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,1-Dichloroethane             | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,1-Dichloroethene             | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,2-Dichloropropane            | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| 1,3-Dichloropropane            | ND     | 1.0                     |           |                                       |      |             |           |      |          |      |
| 2,2-Dichloropropane            | ND     | 2.0                     |           |                                       |      |             |           |      |          |      |

### Qualifiers:

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# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

| Sample ID <b>RB</b>         | SampType: <b>MBLK</b>          |     | TestCode: <b>EPA Method 8260B: VOLATILES</b> |             |                    |          |           |      |          |      |
|-----------------------------|--------------------------------|-----|----------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Client ID: <b>PBW</b>       | Batch ID: <b>R27991</b>        |     | RunNo: <b>27991</b>                          |             |                    |          |           |      |          |      |
| Prep Date:                  | Analysis Date: <b>8/5/2015</b> |     | SeqNo: <b>842681</b>                         |             | Units: <b>µg/L</b> |          |           |      |          |      |
| Analyte                     | Result                         | PQL | SPK value                                    | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| 1,1-Dichloropropene         | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| Hexachlorobutadiene         | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| 2-Hexanone                  | ND                             | 10  |                                              |             |                    |          |           |      |          |      |
| Isopropylbenzene            | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| 4-Isopropyltoluene          | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| 4-Methyl-2-pentanone        | ND                             | 10  |                                              |             |                    |          |           |      |          |      |
| Methylene Chloride          | ND                             | 3.0 |                                              |             |                    |          |           |      |          |      |
| n-Butylbenzene              | ND                             | 3.0 |                                              |             |                    |          |           |      |          |      |
| n-Propylbenzene             | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| sec-Butylbenzene            | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| Styrene                     | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| tert-Butylbenzene           | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND                             | 2.0 |                                              |             |                    |          |           |      |          |      |
| Tetrachloroethene (PCE)     | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| trans-1,2-DCE               | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| trans-1,3-Dichloropropene   | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| 1,2,3-Trichlorobenzene      | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| 1,2,4-Trichlorobenzene      | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| 1,1,1-Trichloroethane       | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| 1,1,2-Trichloroethane       | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| Trichloroethene (TCE)       | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| Trichlorofluoromethane      | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| 1,2,3-Trichloropropane      | ND                             | 2.0 |                                              |             |                    |          |           |      |          |      |
| Vinyl chloride              | ND                             | 1.0 |                                              |             |                    |          |           |      |          |      |
| Xylenes, Total              | ND                             | 1.5 |                                              |             |                    |          |           |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 11                             |     | 10.00                                        |             | 105                | 70       | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 10                             |     | 10.00                                        |             | 102                | 70       | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 12                             |     | 10.00                                        |             | 116                | 70       | 130       |      |          |      |
| Surr: Toluene-d8            | 9.7                            |     | 10.00                                        |             | 97.0               | 70       | 130       |      |          |      |

| Sample ID <b>100ng lcs</b> | SampType: <b>LCS</b>           |     | TestCode: <b>EPA Method 8260B: VOLATILES</b> |             |                    |          |           |      |          |      |
|----------------------------|--------------------------------|-----|----------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Client ID: <b>LCSW</b>     | Batch ID: <b>R27991</b>        |     | RunNo: <b>27991</b>                          |             |                    |          |           |      |          |      |
| Prep Date:                 | Analysis Date: <b>8/5/2015</b> |     | SeqNo: <b>842682</b>                         |             | Units: <b>µg/L</b> |          |           |      |          |      |
| Analyte                    | Result                         | PQL | SPK value                                    | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                    | 21                             | 1.0 | 20.00                                        | 0           | 103                | 70       | 130       |      |          |      |
| Toluene                    | 20                             | 1.0 | 20.00                                        | 0           | 101                | 70       | 130       |      |          |      |
| Chlorobenzene              | 20                             | 1.0 | 20.00                                        | 0           | 98.4               | 70       | 130       |      |          |      |

## Qualifiers:

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|                             |                         |                  |               |                                       |             |          |           |      |          |      |
|-----------------------------|-------------------------|------------------|---------------|---------------------------------------|-------------|----------|-----------|------|----------|------|
| Sample ID                   | 100ng lcs               | SampType: LCS    |               | TestCode: EPA Method 8260B: VOLATILES |             |          |           |      |          |      |
| Client ID:                  | LCSW                    | Batch ID: R27991 |               | RunNo: 27991                          |             |          |           |      |          |      |
| Prep Date:                  | Analysis Date: 8/5/2015 |                  | SeqNo: 842682 |                                       | Units: µg/L |          |           |      |          |      |
| Analyte                     | Result                  | PQL              | SPK value     | SPK Ref Val                           | %REC        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| 1,1-Dichloroethene          | 20                      | 1.0              | 20.00         | 0                                     | 101         | 70       | 130       |      |          |      |
| Trichloroethene (TCE)       | 20                      | 1.0              | 20.00         | 0                                     | 102         | 70       | 130       |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 10                      |                  | 10.00         |                                       | 99.9        | 70       | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 11                      |                  | 10.00         |                                       | 110         | 70       | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 10                      |                  | 10.00         |                                       | 105         | 70       | 130       |      |          |      |
| Surr: Toluene-d8            | 9.8                     |                  | 10.00         |                                       | 98.3        | 70       | 130       |      |          |      |

## Qualifiers:

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H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
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# QC SUMMARY REPORT

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WO#: 1508065

26-Aug-15

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|                      |           |       |                |             |      |           |                       |      |             |      |
|----------------------|-----------|-------|----------------|-------------|------|-----------|-----------------------|------|-------------|------|
| Sample ID            | MB-20677  |       | SampType:      | MBLK        |      | TestCode: | EPA Method 8310: PAHs |      |             |      |
| Client ID:           | PBW       |       | Batch ID:      | 20677       |      | RunNo:    | 28051                 |      |             |      |
| Prep Date:           | 8/10/2015 |       | Analysis Date: | 8/10/2015   |      | SeqNo:    | 844835                |      | Units: µg/L |      |
| Analyte              | Result    | PQL   | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit             | %RPD | RPDLimit    | Qual |
| Naphthalene          | ND        | 2.0   |                |             |      |           |                       |      |             |      |
| 1-Methylnaphthalene  | ND        | 2.0   |                |             |      |           |                       |      |             |      |
| 2-Methylnaphthalene  | ND        | 2.0   |                |             |      |           |                       |      |             |      |
| Benzo(a)pyrene       | ND        | 0.070 |                |             |      |           |                       |      |             |      |
| Surr: Benzo(e)pyrene | 14        |       | 20.00          |             | 68.8 | 37.2      | 136                   |      |             |      |

|                      |           |       |                |             |      |           |                       |      |             |      |
|----------------------|-----------|-------|----------------|-------------|------|-----------|-----------------------|------|-------------|------|
| Sample ID            | LCS-20677 |       | SampType:      | LCS         |      | TestCode: | EPA Method 8310: PAHs |      |             |      |
| Client ID:           | LCSW      |       | Batch ID:      | 20677       |      | RunNo:    | 28051                 |      |             |      |
| Prep Date:           | 8/10/2015 |       | Analysis Date: | 8/10/2015   |      | SeqNo:    | 845107                |      | Units: µg/L |      |
| Analyte              | Result    | PQL   | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit             | %RPD | RPDLimit    | Qual |
| Naphthalene          | 71        | 2.0   | 80.00          | 0           | 89.4 | 57.8      | 83.9                  |      |             | S    |
| 1-Methylnaphthalene  | 74        | 2.0   | 80.20          | 0           | 91.8 | 43.5      | 88.5                  |      |             | S    |
| 2-Methylnaphthalene  | 72        | 2.0   | 80.00          | 0           | 89.4 | 34.2      | 94.5                  |      |             |      |
| Benzo(a)pyrene       | 0.44      | 0.070 | 0.5020         | 0           | 87.6 | 56.3      | 98.6                  |      |             |      |
| Surr: Benzo(e)pyrene | 14        |       | 20.00          |             | 70.8 | 37.2      | 136                   |      |             |      |

## Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|                              |          |                |           |             |                                |          |           |      |          |      |
|------------------------------|----------|----------------|-----------|-------------|--------------------------------|----------|-----------|------|----------|------|
| Sample ID                    | MB-20629 | SampType:      | MBLK      | TestCode:   | Total Phenolics by SW-846 9067 |          |           |      |          |      |
| Client ID:                   | PBW      | Batch ID:      | 20629     | RunNo:      | 27992                          |          |           |      |          |      |
| Prep Date:                   | 8/6/2015 | Analysis Date: | 8/6/2015  | SeqNo:      | 842690                         | Units:   | µg/L      |      |          |      |
| Analyte                      | Result   | PQL            | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | ND       | 2.5            |           |             |                                |          |           |      |          |      |

|                              |           |                |           |             |                                |          |           |      |          |      |
|------------------------------|-----------|----------------|-----------|-------------|--------------------------------|----------|-----------|------|----------|------|
| Sample ID                    | LCS-20629 | SampType:      | LCS       | TestCode:   | Total Phenolics by SW-846 9067 |          |           |      |          |      |
| Client ID:                   | LCSW      | Batch ID:      | 20629     | RunNo:      | 27992                          |          |           |      |          |      |
| Prep Date:                   | 8/6/2015  | Analysis Date: | 8/6/2015  | SeqNo:      | 842691                         | Units:   | µg/L      |      |          |      |
| Analyte                      | Result    | PQL            | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | 21        | 2.5            | 20.00     | 0           | 104                            | 64.4     | 135       |      |          |      |

|                              |            |                |           |             |                                |          |           |      |          |      |
|------------------------------|------------|----------------|-----------|-------------|--------------------------------|----------|-----------|------|----------|------|
| Sample ID                    | LCSD-20629 | SampType:      | LCSD      | TestCode:   | Total Phenolics by SW-846 9067 |          |           |      |          |      |
| Client ID:                   | LCSS02     | Batch ID:      | 20629     | RunNo:      | 27992                          |          |           |      |          |      |
| Prep Date:                   | 8/6/2015   | Analysis Date: | 8/6/2015  | SeqNo:      | 842692                         | Units:   | µg/L      |      |          |      |
| Analyte                      | Result     | PQL            | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Phenolics, Total Recoverable | 18         | 2.5            | 20.00     | 0           | 91.6                           | 64.4     | 135       | 12.7 | 21.4     |      |

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# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|            |           |                |           |             |                                 |          |           |      |          |      |
|------------|-----------|----------------|-----------|-------------|---------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB-R28452 | SampType:      | MBLK      | TestCode:   | EPA 335.4: Total Cyanide Subbed |          |           |      |          |      |
| Client ID: | PBW       | Batch ID:      | R28452    | RunNo:      | 28452                           |          |           |      |          |      |
| Prep Date: |           | Analysis Date: | 8/12/2015 | SeqNo:      | 859841                          | Units:   | mg/L      |      |          |      |
| Analyte    | Result    | PQL            | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Cyanide    | ND        | 0.0100         |           |             |                                 |          |           |      |          |      |

|            |            |                |           |             |                                 |          |           |      |          |      |
|------------|------------|----------------|-----------|-------------|---------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS-R28452 | SampType:      | LCS       | TestCode:   | EPA 335.4: Total Cyanide Subbed |          |           |      |          |      |
| Client ID: | LCSW       | Batch ID:      | R28452    | RunNo:      | 28452                           |          |           |      |          |      |
| Prep Date: |            | Analysis Date: | 8/12/2015 | SeqNo:      | 859842                          | Units:   | mg/L      |      |          |      |
| Analyte    | Result     | PQL            | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Cyanide    | 0.521      |                | 0.5000    | 0           | 104                             | 90       | 110       |      |          |      |

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

Project: Monthly R.O. Reject

|                               |        |                |           |             |           |                                  |           |      |          |      |
|-------------------------------|--------|----------------|-----------|-------------|-----------|----------------------------------|-----------|------|----------|------|
| Sample ID                     | RB     | SampType:      | MBLK      |             | TestCode: | EPA Method 8015D: Gasoline Range |           |      |          |      |
| Client ID:                    | PBW    | Batch ID:      | R27991    |             | RunNo:    | 27991                            |           |      |          |      |
| Prep Date:                    |        | Analysis Date: | 8/5/2015  |             | SeqNo:    | 842759                           | Units:    | mg/L |          |      |
| Analyte                       | Result | PQL            | SPK value | SPK Ref Val | %REC      | LowLimit                         | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND     | 0.050          |           |             |           |                                  |           |      |          |      |
| Surr: BFB                     | 11     |                | 10.00     |             | 110       | 70                               | 130       |      |          |      |

|                               |               |                         |           |             |                                            |          |             |      |          |      |
|-------------------------------|---------------|-------------------------|-----------|-------------|--------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                     | 2.5ug gro lcs | SampType: LCS           |           |             | TestCode: EPA Method 8015D: Gasoline Range |          |             |      |          |      |
| Client ID:                    | LCSW          | Batch ID: R27991        |           |             | RunNo: 27991                               |          |             |      |          |      |
| Prep Date:                    |               | Analysis Date: 8/5/2015 |           |             | SeqNo: 842760                              |          | Units: mg/L |      |          |      |
| Analyte                       | Result        | PQL                     | SPK value | SPK Ref Val | %REC                                       | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 0.50          | 0.050                   | 0.5000    | 0           | 100                                        | 80.6     | 122         |      |          |      |
| Surr: BFB                     | 10            |                         | 10.00     |             | 103                                        | 70       | 130         |      |          |      |

## Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

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|              |           |                |           |             |                                                |          |           |      |          |      |
|--------------|-----------|----------------|-----------|-------------|------------------------------------------------|----------|-----------|------|----------|------|
| Sample ID    | MB-R28452 | SampType:      | MBLK      | TestCode:   | EPA 903.1: Ra 226 and EPA 904.0: Ra 228-Subbed |          |           |      |          |      |
| Client ID:   | PBW       | Batch ID:      | R28452    | RunNo:      | 28452                                          |          |           |      |          |      |
| Prep Date:   |           | Analysis Date: | 8/18/2015 | SeqNo:      | 859845                                         | Units:   | pCi/L     |      |          |      |
| Analyte      | Result    | PQL            | SPK value | SPK Ref Val | %REC                                           | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Radium-226   | ND        | 0.551          |           |             |                                                |          |           |      |          |      |
| Radium-226 ± | 0.342     | 0.551          |           |             |                                                |          |           |      |          |      |
| Radium-228   | 0.014     | 0.860          |           |             |                                                |          |           |      |          |      |
| Radium-228 ± | 0.371     | 0.860          |           |             |                                                |          |           |      |          |      |

|              |           |                |           |             |                                                |          |           |      |          |      |
|--------------|-----------|----------------|-----------|-------------|------------------------------------------------|----------|-----------|------|----------|------|
| Sample ID    | MB-R28452 | SampType:      | MBLK      | TestCode:   | EPA 903.1: Ra 226 and EPA 904.0: Ra 228-Subbed |          |           |      |          |      |
| Client ID:   | PBW       | Batch ID:      | R28452    | RunNo:      | 28452                                          |          |           |      |          |      |
| Prep Date:   |           | Analysis Date: | 8/18/2015 | SeqNo:      | 859847                                         | Units:   | pCi/L     |      |          |      |
| Analyte      | Result    | PQL            | SPK value | SPK Ref Val | %REC                                           | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Radium-226   | 0.556     | 0.599          |           |             |                                                |          |           |      |          |      |
| Radium-226 ± | 0.441     | 0.599          |           |             |                                                |          |           |      |          |      |
| Radium-228   | 0.314     | 0.882          |           |             |                                                |          |           |      |          |      |
| Radium-228 ± | 0.412     | 0.882          |           |             |                                                |          |           |      |          |      |

## Qualifiers:

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- B Analyte detected in the associated Method Blank
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- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508065

26-Aug-15

Client: Navajo Refining Company

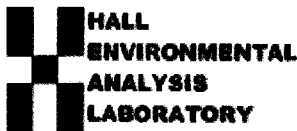
Project: Monthly R.O. Reject

|                        |          |                |           |             |                                     |          |           |      |          |      |
|------------------------|----------|----------------|-----------|-------------|-------------------------------------|----------|-----------|------|----------|------|
| Sample ID              | MB-20626 | SampType:      | MBLK      | TestCode:   | SM2540C MOD: Total Dissolved Solids |          |           |      |          |      |
| Client ID:             | PBW      | Batch ID:      | 20626     | RunNo:      | 28016                               |          |           |      |          |      |
| Prep Date:             | 8/5/2015 | Analysis Date: | 8/6/2015  | SeqNo:      | 843340                              | Units:   | mg/L      |      |          |      |
| Analyte                | Result   | PQL            | SPK value | SPK Ref Val | %REC                                | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Total Dissolved Solids | ND       | 20.0           |           |             |                                     |          |           |      |          |      |

|                        |           |                |           |             |                                     |          |           |      |          |      |
|------------------------|-----------|----------------|-----------|-------------|-------------------------------------|----------|-----------|------|----------|------|
| Sample ID              | LCS-20626 | SampType:      | LCS       | TestCode:   | SM2540C MOD: Total Dissolved Solids |          |           |      |          |      |
| Client ID:             | LCSW      | Batch ID:      | 20626     | RunNo:      | 28016                               |          |           |      |          |      |
| Prep Date:             | 8/5/2015  | Analysis Date: | 8/6/2015  | SeqNo:      | 843341                              | Units:   | mg/L      |      |          |      |
| Analyte                | Result    | PQL            | SPK value | SPK Ref Val | %REC                                | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Total Dissolved Solids | 1010      | 20.0           | 1000      | 0           | 101                                 | 80       | 120       |      |          |      |

## Qualifiers:

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
| S % Recovery outside of range due to dilution or matrix |                                                   |



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name **NAVAJO REFINING CO**

Work Order Number: **1508065**

RcptNo: **1**

Received by/date:

*CS*

*08/04/15*

Logged By: **Ashley Gallegos**

8/4/2015 9:13:00 AM

*[Signature]*

Completed By: **Ashley Gallegos**

8/4/2015 10:09:41 AM

*[Signature]*

Reviewed By

*[Signature]*

*ashley gallegos*

### Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? **Courier**

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH: **6**  
Adjusted? **1**  
(**<2** or **<12** unless noted)
- Checked by: *[Signature]*

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified

Date

By Whom

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding

Client Instructions

17. Additional remarks:

### 18. Cooler Information

| Cooler No | Temp $^{\circ}\text{C}$ | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|-------------------------|-----------|-------------|---------|-----------|-----------|
| 1         | 5.2                     | Good      | Not Present |         |           |           |