AP – 117

2014 AGWMR

09 / 12 / 2014

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ConocoPhillips

Mr. Glenn von Gonten
New Mexico Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

September 12, 2014

Re: NMOCD Case No. AP-113, 2014 Annual Groundwater Monitoring Report

Dear Mr. von Gonten:

Enclosed is the 2014 Annual Groundwater Monitoring Report for the Wingate Fracionator Plant Ponds. This report, prepared by Conestoga-Rovers & Associates (CRA), contains the results of groundwater monitoring from June 2014.

Please let me know if you have any questions.

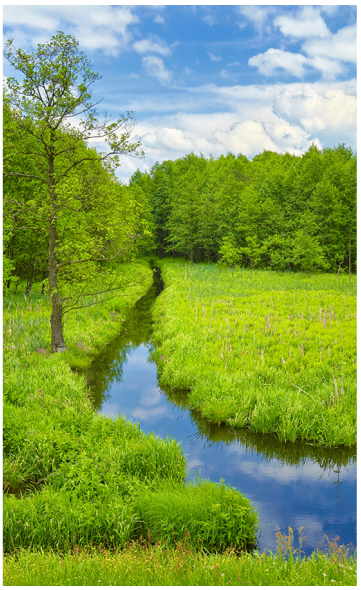
Sincerely,

David C. Hathaway

David C. Hathaway, P.E.

Enc

www.CRAworld.com



2014 Annual Groundwater and Pond Monitoring Report

Wingate Fractionator Plant
AP-117

Prepared for: ConocoPhillips Wingate Fractionator Plant

Conestoga-Rovers & Associates
6121 Indian School Road, NE Suite 200
Albuquerque, New Mexico 87110

August 2014 • 075167 • Report No. 2

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Section 1.0 Introduction and Site History

The Wingate Fractionator Plant (Site) is located in McKinley County, New Mexico, within portions of Sections 9, 10, 15, 16, and 17, Township 15 North, Range 17 West (**Figure 1**). A New Mexico Water Quality Control Commission (NMWQCC) Groundwater Discharge Permit for the Wingate Plant was first approved by the New Mexico Oil Conservation Division (NMOCD) on August 17, 1992. The NMOCD, in a letter dated April 2, 2012, determined that, in accordance with NMWQCC regulations, the Site no longer required a discharge permit. As a result, Discharge Permit GW-054 expired in August 2012. The NMOCD required the Wingate Fractionator Plant to continue its groundwater monitoring and remediation activities under Abatement Plan AP-113.

In accordance with Abatement Plan AP-113, Conestoga-Rovers & Associates (CRA) conducted an annual groundwater sampling event on June 10, 2014. This report presents results from this event.

Section 2.0 Site Description

The Site consists of a gas fractionator plant with associated pipelines, storage tanks, and evaporation ponds. The plant is surrounded by a chain-link fence, and the office is located on the west end of the facility. Two evaporation ponds are located to the northwest of the plant. These ponds are used and maintained by ConocoPhillips Company (ConocoPhillips) and are surrounded by a locked chain-link fence. All monitoring wells are on ConocoPhillips, or ConocoPhillips-leased property. A Site Plan is provided as **Figure 2**.

The Site lies along the south side of an east-west trending alluvial drainage formed by the south fork of the Puerco River. The Site is approximately 6,590 feet above mean sea level (amsl), and lies on Quaternary-aged alluvium. To the south of the plant are the Zuni Mountains, reaching a maximum elevation of approximately 9,000 feet amsl. To the north of the plant, a red sandstone escarpment rises 400 feet above the valley to an elevation of approximately 7,000 feet amsl. The escarpment is comprised of Jurassic-age sandstone and siltstone deposits of the Entrada Formation.

Groundwater at the Site has been encountered during drilling at approximately 20 feet below ground surface (bgs), rising to approximately 4 to 10 feet bgs in well casing across the Site, suggesting confined aquifer conditions. As evidenced by boring logs from monitoring well installations, the Site is underlain by approximately 20 feet of clay which may act as the confining layer.

Beneath the clay layer, a saturated, fine grained sand is encountered which appears to be the water bearing zone. A historical boring log for WMR-1 is presented in **Appendix A**.

Two series of monitor wells are installed near the facility evaporation ponds. The first series of wells are shallow vadose zone monitor wells, MWS-1 and MWS-2. These two shallow wells are installed to a total depth of 15 feet below ground surface (bgs) and are screened from 5 to 15 feet bgs. The shallow vadose zone wells were installed to monitor potential evaporation pond seepage. MWS-1 and MWS-2 were dry at the time they were constructed and have been consistently dry during every sampling event since, indicating no pond seepage. The second series of monitor wells installed near the evaporation ponds, MWR-1, MW-2, and MW-3, are used to monitor groundwater conditions of the aquifer in the vicinity of the ponds.

This report discusses data collected from both series of monitor wells during the 2014 annual monitoring event and provides a comparison to historical data. **Table 1** lists well completion information and groundwater elevations. Historical groundwater flow direction at the site has been predominantly towards the west-northwest. Groundwater levels collected during the 2014 groundwater sampling event indicate a groundwater flow direction to the west-southwest. A groundwater potentiometric surface map is presented as **Figure 3**.

Section 3.0 Groundwater Sampling Methodology

CRA performed groundwater monitoring activities on June 10, 2014. An oil/water interface probe was used to measure groundwater depths and check for the presence of light non-aqueous phase liquids (LNAPL) in each of the Site monitoring wells. These data, along with casing diameter and total depth information, were used to calculate the water volume in each monitoring well. Before and after each use, the oil/water interface probe was cleaned with an Alconox®/de-ionized water solution, and then rinsed with de-ionized water.
Water was purged from the wells with a bladder pump until field parameters, including pH, oxidation reduction potential, dissolved oxygen, conductivity, and temperature stabilized and/or three well volumes of water were removed. Field parameters were monitored using a YSI 556 multi-parameter sonde, and were recorded on CRA Well Sampling Field Information forms.

Following purging, groundwater samples were placed into laboratory-prepared sample containers. Disposable nitrile gloves were worn by sampling personnel and were changed at each well location. The pump was cleaned following each well sampling by circulating Alconox® and de-ionized water solution, methanol and de-ionized water solution, and followed by a de-ionized water rinse.

Surface water samples from the east pond were collected approximately 5 feet from the edge of Site evaporation ponds by dipping a disposable polyethylene sampling cup and then transferring the water into laboratory prepared containers. Surface water samples from the west pond were collected per ConocPhillips request by first chipping through the salt layer to expose the surface water. A disposable polyethylene sampling cup was then dipped and used to transfer the water into laboratory prepared containers.

Following collection of samples from each location, samples were immediately labeled, placed on ice, and submitted to Hall Environmental Analysis Laboratory, Inc. of Albuquerque, New Mexico for analyses of volatile organic compounds (VOC) including benzene, toluene, ethylbenzene, and total xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260; semi-volatile organics by EPA Method 8270; chloride, sulfate, and nitrate by EPA Method 300.0A; dissolved metals including, arsenic, barium, cadmium, calcium, chromium, lead, selenium, silver, and sodium by EPA Method 6010; mercury by EPA method 7470; uranium-238 by EPA method 6020; total dissolved solids (TDS) by SM 2540C; pH by SM 4500H + B/9040; alkalinity by SM 2320B; Biological Oxygen Demand (BOD) by SM 5210B; Chemical Oxygen Demand (COD) by SM 5220D; and total coliform analyses by SM 9223B.

On November 10, 2011, verification of the metals sampling list was received in an email from Glen VonGonton of the NMOCD. As a result of this verification, uranium analysis was added and magnesium and manganese analysis was discontinued for all Site wells and evaporation ponds.

Section 4.0 Analytical Results

The 2014 groundwater analytical results have been summarized and are presented in **Table 2**. Analytical results for groundwater samples were compared to the NMWQCC groundwater quality standards contained in Title 20, Chapter 6, Part 2, Section 3103 of the New Mexico Administrative Code (20.6.2.3103 NMAC). Applicable groundwater quality standards are found in Subsection A, *Human Health Standards,* and Subsection B, *Other Standards for Domestic Water Supply*. Analytical results for evaporation pond water samples are presented in **Table 3**.

Graphs depicting selected analytical results versus time and Site hydrographs have been included as **Appendix B.** The laboratory analytical report, including the chain-of-custody, is presented in **Appendix C**. The Site map with analytical results for some of the commonly noted constituents of concern (COCs) that have historically occurred over the regulatory standards is included as **Figure 4**.

4.1 Evaporation Pond Perimeter Monitoring Wells and Evaporation Pond Water Samples

Monitoring Wells

Monitor Wells, MWS-1 and MWS-2 were found to be dry during the 2014 groundwater monitoring event, consistent with historical groundwater level data. Thus, no water samples were collected from these wells and no seepage is apparent from Site evaporation ponds.

The groundwater samples from MWR-1, MW-2, and MW-3 did not contain BTEX above laboratory detection limits. Results for BOD and COD in MWR-1, MW-2, and MW-3 were comparable to historical results which have never exceeded the NMWQCC standards of 30 and 125 milligrams per liter (mg/L), respectively.

The original DP-045 limit for fecal coliform is 500/100 milliliters (mL), however, since 2007 the NMOCD has allowed analysis of total coliform in place of fecal coliform due to the remote location of the Site, the distance to the nearest analytical lab from the Site, and the short laboratory holding time for fecal coliform analysis. There are currently no NMWQCC standards in place for total coliform or *E.coli*. Samples collected from MWR-1, MW-2, and MW-3 were all below laboratory detection limits with results of less than ten colonies per 100 mL for total coliform.
The groundwater sample from MWR-1 returned an analytical result of 1,100 mg/L for total dissolved solids (TDS). The NMWQCC standard for TDS is 1,000 mg/L. This is the only analytical result from the evaporation pond perimeter monitoring wells that exceeded applicable NMWQCC groundwater quality standards.

Evaporation Ponds

The East Evaporation Pond surface water sample returned an analytical result of 1,400 mg/L for COD. This result is above the NMWQCC standard of 125 mg/L and also higher than historical results. BOD was consistent with historical data with a result of 9.8 mg/L that has never exceeded the NMWQCC standard of 30 mg/L. Results for total coliform analysis indicate total coliform in a sample from the East Pond to be less than one colony per 100 mL of water.

The surface water sample from the east pond also returned analytical results of 5,300 mg/L for sodium, 4,300 mg/L for chloride, 10,000 mg/L for sulfate, and 23,700 mg/L for TDS. The NMWQCC standards for these constituents of concern are 1,140 mg/L, 250 mg/L, 600 mg/L, and 1,000 mg/L, respectively. The pH of the east pond was determined to be 9.50, exceeding the NMWQCC standard of 6.00 to 9.00.

The West Evaporation Pond was sampled for the first time since June 2011. The surface water sample returned analytical results of 9,100 mg/L for COD and 51 mg/L for BOD, both of which exceed the NMWQCC standards. Results for total coliform analysis indicate total coliform in a sample from the West Pond to be less than one colony per 100 mL of water.

The surface water sample from the west pond also returned analytical results of 84,000 mg/L for sodium, 190,000 mg/L for chloride, 30,000 mg/L for sulfate, and 390,000 mg/L for TDS, all of which exceed the NMWQCC standards.

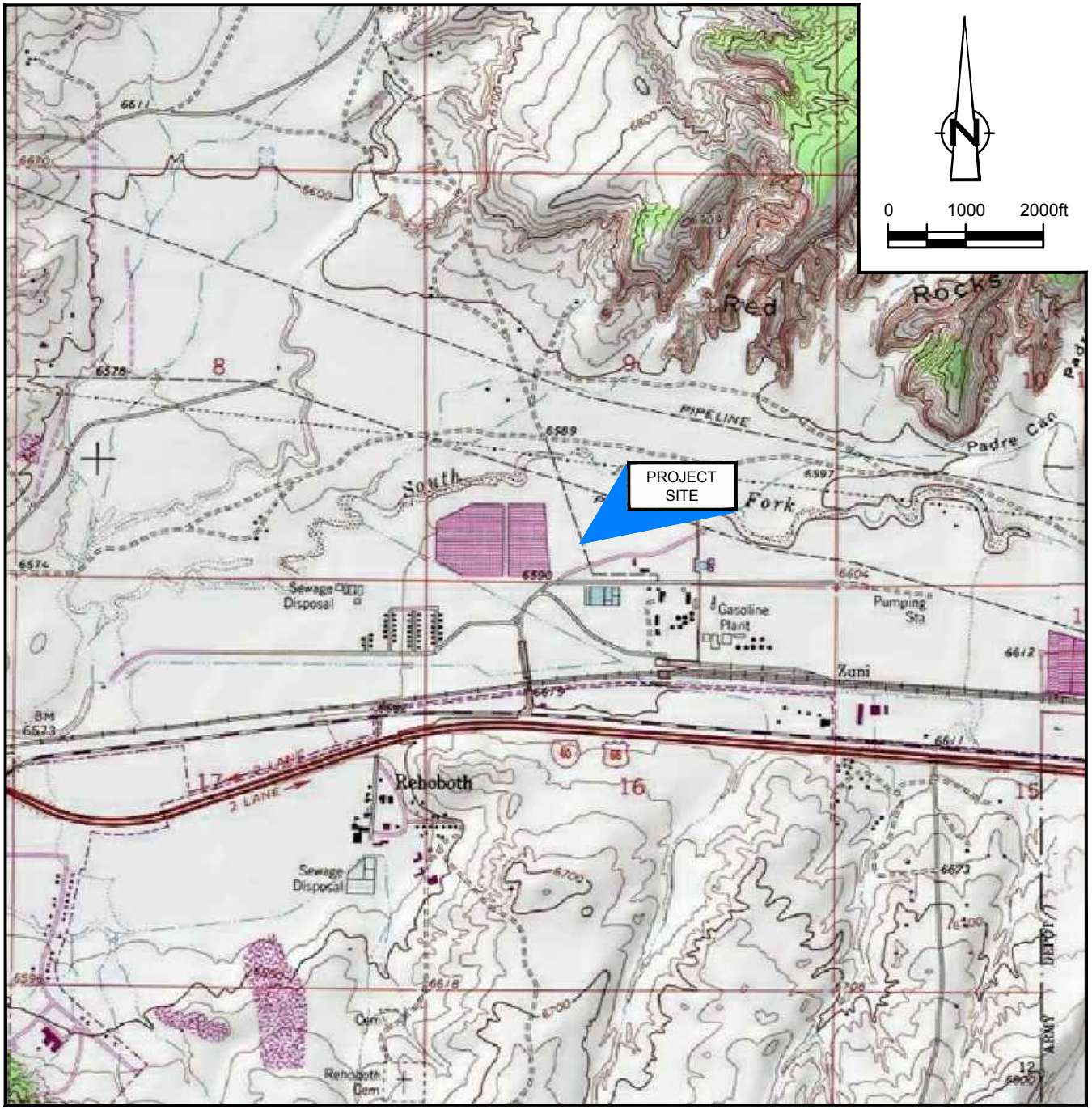
A summary of analytical results for water samples collected from the Wingate evaporation ponds can be found on **Table 3.**

Section 5.0 Summary and Recommendations

Shallow vadose zone wells installed to detect potential seepage from the Site Evaporation Ponds continue to remain dry; indicating the clay liner beneath the ponds is intact. In addition, concentrations of TDS, sulfate, and chloride in groundwater Monitoring Wells, MWR-1 and MW-2, located down-gradient of the Evaporation Ponds, are consistent with those found in Site wells hydraulically up-gradient of the ponds. Concentrations of COCs in all down-gradient monitoring wells, excluding the slight exceedance of TDS in MWR-1, are also below NMWQCC groundwater quality standards, consistent with historical data.

The next annual sampling and reporting event is scheduled for June of 2015.

Figures



SOURCE: USGS 7.5 MINUTE QUAD
"BIG ROCK HILL AND HARD GROUND FLATS, NEW MEXICO"

LAT/LONG: 35.5385° NORTH, 108.6484° WEST
COORDINATE: NAD83 DATUM, U.S. FOOT
STATE PLANE ZONE - NEW MEXICO WEST

Figure 1

SITE LOCATION MAP
WINGATE FRACTIONATOR PLANT
ANNUAL GROUNDWATER SAMPLING
GALLUP, NEW MEXICO
ConocoPhillips Company

RE: USGS Aerial Photograph.

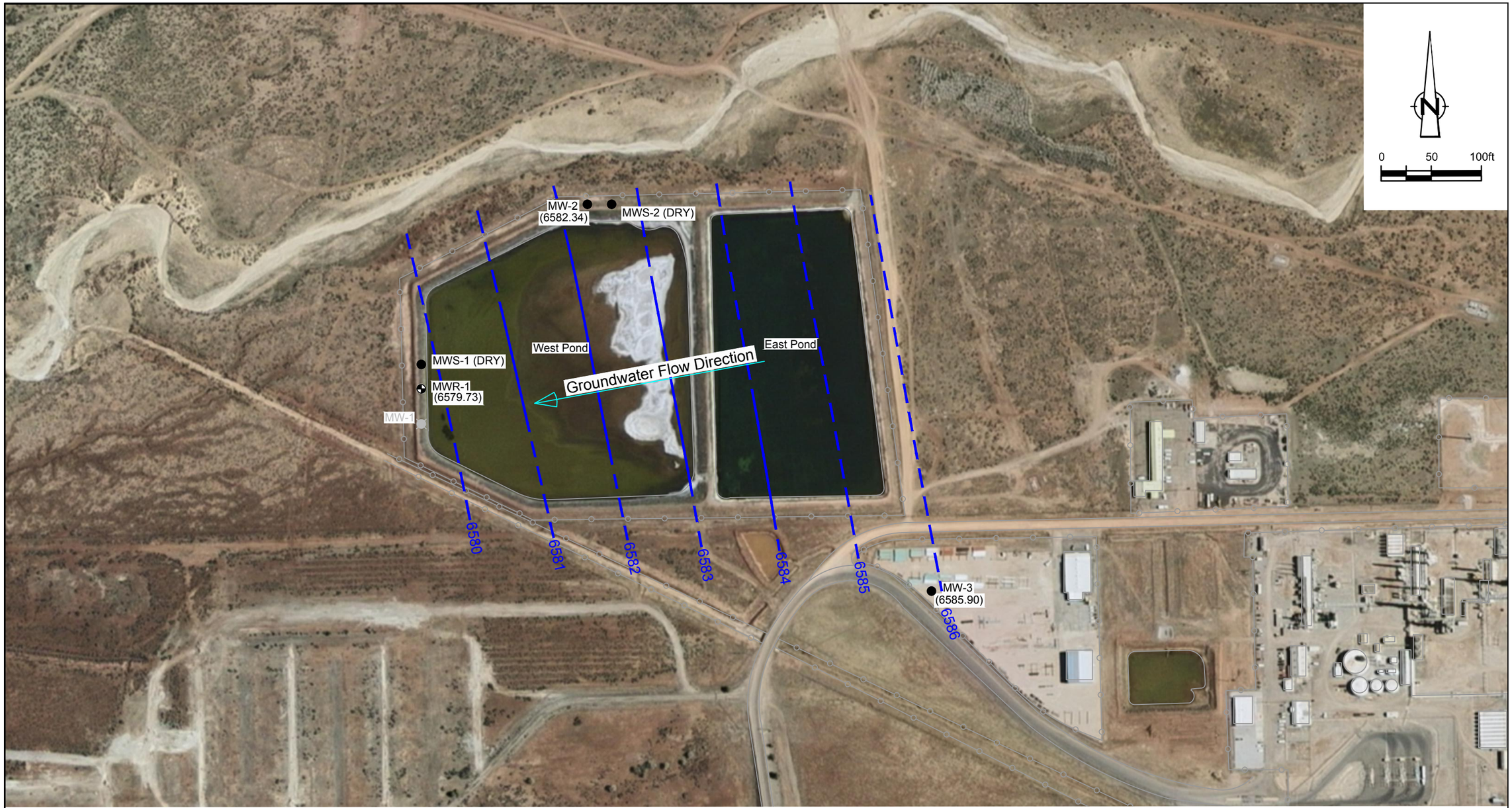
LEGEND

- Monitor Well Location
- Re-Drill To Replace MW-1
- Plugged And Abandoned 6-24-03

Figure 2

SITE PLAN WITH AERIAL PHOTOGRAPH
WINGATE FRACTIONATOR PLANT
ANNUAL GROUNDWATER SAMPLING
GALLUP, NEW MEXICO
ConocoPhillips Company

075167-00(002)GN-DL002 AUG 19/2014



RE: USGS Aerial Photograph.

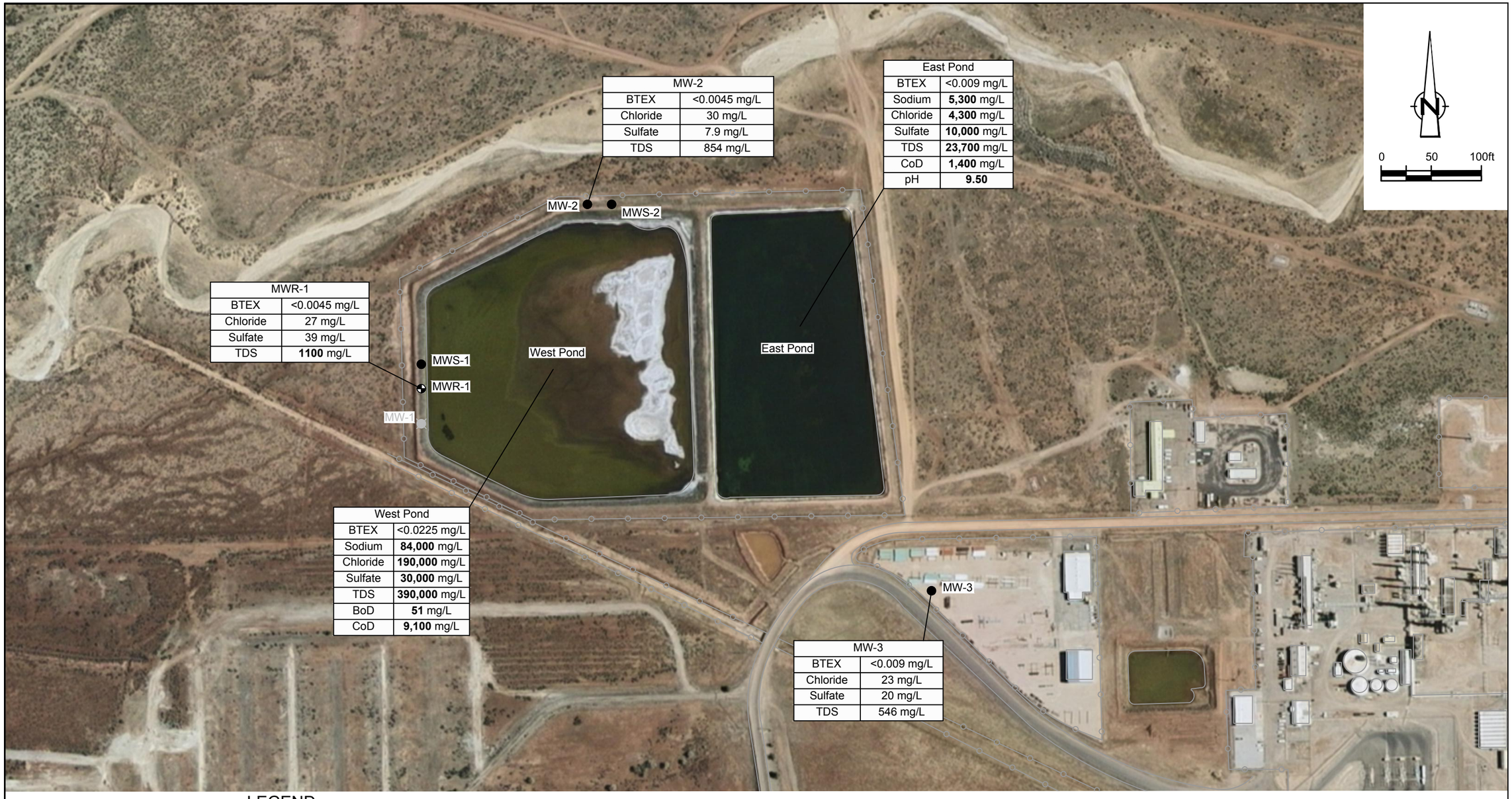
LEGEND

- MONITOR WELL
- RE-DRILL TO REPLACE MW-1
- PLUGGED AND ABANDONED SEPTEMBER 7, 2013
- (6585.90) GROUNDWATER ELEVATION, ft. AMSL
- *6584* GROUNDWATER ELEVATION CONTOUR, ft. AMSL
- DASHED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION

Figure 3

JUNE 2014 GROUNDWATER POTENTIOMETRIC SURFACE MAP
WINGATE FRACTIONATOR PLANT
ANNUAL GROUNDWATER SAMPLING
GALLUP, NEW MEXICO
ConocoPhillips Company

075167-00(002)GN-DL003 SEP 8/2014



RE: USGS Aerial Photograph.

LEGEND

- ● MONITOR WELL
- ◕ RE-DRILL TO REPLACE MW-1
- PLUGGED AND ABANDONED JUNE 24, 2003
- CoD CHEMICAL OXYGEN DEMAND
- BoD BIOCHEMICAL OXYGEN DEMAND

SAMPLE ID	
CONSTITUENT	CONCENTRATION, unit

NOTE: Values in BOLD indicate an exceedance of NMWQCC groundwater standard.

Figure 4

JUNE 2014 CONSTITUENTS OF CONCERN CONCENTRATION MAP
WINGATE FRACTIONATOR PLANT
ANNUAL GROUNDWATER SAMPLING
GALLUP, NEW MEXICO
ConocoPhillips Company

075167-00(002)GN-DL003 AUG 19/2014

Tables

TABLE 1

MONITOR WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS
CONOCOPHILLIPS COMPANY
WINGATE FRACTIONATOR PLANT
GALLUP, NEW MEXICO

Well ID	*Total Depth (ft)*	*TOC Elevation (ft msl)*	*Screen Interval (ft bgs)*	*Date Measured*	*Depth to Groundwater (ft bgs)*	*Relative Water Level (ft msl)*
MW-2	45	6585.91	20-45	6/10/2014	3.57	6582.34
MW-3	45	6590.08	20-45	6/10/2014	4.18	6585.90
MWR-1	45	6585.13	20-45	6/10/2014	5.40	6579.73
MWS-1	15	--	5-15	6/10/2014	DRY	--
MWS-2	15	--	5-15	6/10/2014	DRY	--

Notes:

1. bgs - below ground surface
2. ft - feet
3. msl - mean sea level
4. MW - Monitor Well
5. MWR - Redrilled Monitor Well
6. TOC - top of casing
7. WMW - Monitor well within the Wingate site boundary

TABLE 2

GROUNDWATER ANALYTICAL RESULTS SUMMARY
CONOCOPHILLIPS COMPANY
WINGATE FRACTIONATOR PLANT
GALLUP, NEW MEXICO

		Benzene (mg/L)	*Toluene (mg/L)*	*Ethylbenzene (mg/L)*	*Xylenes (total) (mg/L)*	*Naphthalene (mg/L)*	*Arsenic (dissolved) (mg/L)*	*Barium (dissolved) (mg/L)*	*Cadmium (dissolved) (mg/L)*	*Calcium (mg/L)*	*Chromium (dissolved) (mg/L)*	*Iron (dissolved) (mg/L)*	*Iron (mg/L)*	*Lead (dissolved) (mg/L)*	*Lead (mg/L)*	*Magnesium (dissolved) (mg/L)*	*Manganese (dissolved) (mg/L)*	*Manganese (mg/L)*	*Mercury (mg/L)*	*Selenium (dissolved) (mg/L)*	*Silver (dissolved) (mg/L)*	*Sodium (dissolved) (mg/L)*	*Uranium-238 (mg/L)*	*Alkalinity (mg/L)*	*BOD (mg/L)*	*Chloride (mg/L)*	*COD (mg/L)*	*Nitrate (as N) (mg/L)*	*pH*	*Sulfate (mg/L)*	*Total Coliform (colonies/ 100 mL)*	*TDS (mg/L)*
MWR-1	7/31/2003	<0.0005	<0.0007	<0.0008	<0.0008	--	0.0114	**1.87**	<0.00087	92.4	**0.0522**	--	--	**0.0562**	--	46.1	--	--	<0.00016	0.0086	<0.0018	397	--	725	9.2	154	32.1	<0.40	7.9	147	--	**1340**
	9/24/2004	<0.0005	<0.0007	<0.0008	<0.0008	<0.001	<0.0047	0.252	<0.00076	12.5	<0.0025	--	--	<0.0100	--	7.56	--	--	<0.00028	<0.0059	<0.0020	291	--	553	11.0	30.5	20.6	<0.40	8.0	27.0	<1.0	712
	6/21/2005	<0.0005	<0.0007	<0.0008	<0.0008	<0.001	<0.0093	0.191	<0.00097	10.2	<0.0048	--	--	<0.0084	--	6.02	--	--	<0.000062	<0.0094	<0.0020	278	--	611	<3.5	30.5	12.9	<0.40	7.9	38.0	<1.0	775
	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	<0.001	<0.01	0.221	<0.00091	11.1	<0.0023	--	--	<0.0069	--	6.61	--	--	<0.000056	<0.0094	<0.0016	317	--	611	<5.0	24.3	16.7	0.26	8.1	43.6	<1.0	684
	6/19/2007	<0.0005	<0.0007	<0.0008	<0.0008	<0.001	<0.01	0.728	<0.00090	31.30	0.0176	--	--	0.0126	--	15.2	--	--	0.000058	<0.0094	<0.0016	331	--	705	15.9	34.1	68.5	<0.25	8.2	58.8	<1.0	886
	7/1/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.225	<0.005	10.90	<0.005	--	3.0	<0.005	--	6.53	--	0.369	<0.0002	<0.005	<0.005	299	--	579	<2.0	29.6	9.41	<1	8.1	37.9	<1.0	865
	6/24/2009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.488	<0.005	19.70	0.00666	--	9.07	<0.005	--	7.89	--	0.577	<0.0002	<0.005	<0.005	332	--	600	2.87	25.2	17.5	<0.5	7.96	39.9	10	793
	6/21/2010	<0.001	<0.001	<0.001	<0.001	<0.0053	<0.0050	0.176	<0.0050	8.33	<0.0050	0.0306	--	<0.0050	--	5.14	**0.271**	--	<0.002	<0.01	<0.005	344	--	589	<2.0	33.4	11.9	0.603	7.75	41.5	<1	**1200**
	6/29/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0050	<0.005	0.254	<0.004	--	<0.01	0.145	--	<0.003	--	6.21	**0.266**	--	--	<0.005	<0.01	314	--	620	<2.0	27.8	32.3	<0.50	8.00	45.3	<1.0	813
	6/19/2012	<0.0010	<0.0010	<0.0010	<0.0030	<0.010	<0.010	0.192	<0.005	7.90	<0.005	--	--	<0.005	--	--	**--**	--	<0.0002	<0.015	<0.007	348	0.00086	--	<2.0	35.5	12.8	<0.1	8.1	52.7	<1.0	858
	6/25/2013	<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.001	0.20	<0.002	9.8	<0.0060	--	--	<0.001	--	--	**--**	--	<0.00020	0.0010	<0.005	340	0.0010	700	3.3**	28	14	<0.10	8.06	41	9.8	914
	6/10/2014	<0.0010	<0.0010	<0.0010	<0.0015	<0.002	0.0014	0.27	<0.002	9.9	<0.0060	--	--	<0.001	--	--	**--**	--	<0.00020	<0.010	<0.005	330	<0.010	700	<0.86[E]	27	50	<0.50	8.29	39	<10	**1100**
MW-2	5/14/2003	<0.0001	<0.001	<0.001	<0.002	<0.0096	<0.01	0.21	<0.002	14.70	<0.005	--	--	<0.003	--	7.9	--	--	--	--	--	418	--	770	--	64.4	--	<0.5	--	102	--	**1140**
	9/24/2004	<0.0005	<0.0007	<0.0008	<0.0008	<0.0009	0.0131	0.126	<0.00076	6.30	<0.0025	--	--	<0.0100	--	2.96	--	--	<0.000028	<0.0059	<0.0020	321	--	718	<6.0	29.6	26.70	<0.40	8.3	4.4	<1.0	860
	6/21/2005	<0.0005	<0.0007	<0.0008	<0.0008	<0.001	0.0196	0.141	<0.00097	6.45	<0.0048	--	--	<0.0084	--	3.14	--	--	<0.000062	<0.0094	<0.0020	310	--	708	<2.5	38.9	32.40	<0.40	8.2	18.6	<1.0	878
	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	<0.001	0.0212	0.141	<0.00091	7.16	<0.0023	--	--	<0.0069	--	e	--	--	<0.000056	<0.0094	<0.0016	384	--	712	<5.8	38.6	28.30	<0.25	8.2	22.9	<1.0	908
	6/19/2007	<0.0005	<0.0007	<0.0008	<0.0008	<0.001	0.0190	0.139	<0.00090	6.73	<0.0023	--	--	<0.0069	--	3.41	--	--	<0.000056	<0.0094	<0.0016	284	--	708	<3.8	33.0	29.0	1.3	8.3	13.3	<1.0	888
	7/2/2008	<0.005	<0.005	<0.005	<0.005	<0.005	0.00783	0.223	<0.005	13.2	<0.005	0.601	--	<0.005	--	9.6	--	0.354	<0.0002	<0.005	<0.005	361	--	626	<2.0	62.9	7.23	<0.5	7.77	125	<1.0	**1050**
	6/23/2009	<0.005	<0.005	<0.005	<0.005	<0.005	0.0115	0.255	<0.005	14.5	<0.005	0.611	--	<0.005	--	8.18	--	0.314	<0.0002	<0.005	<0.005	403	--	580	<2	57.3	40	<0.5	7.94	113	7	**1030**
	6/21/2010	<0.001	<0.001	<0.001	<0.001	<0.0053	0.008	0.210	<0.005	13.2	<0.005	0.180	--	<0.005	--	7.75	**0.317**	--	<0.002	<0.01	<0.005	396	--	690	<2.0	57.1	9.52	0.555	8.55	107	<1	**1360**
	6/29/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0050	0.0094	0.205	<0.004	--	<0.01	0.175	--	<0.003	--	7.45	**0.33**	--	--	<0.005	<0.01	363	--	664	<2.0	58.0	<20	<0.50	7.81	122	<1.0	**1010**
	6/19/2012	<0.0010	<0.0010	<0.0010	<0.0030	<0.010	<0.010	0.241	<0.005	13.8	<0.005	--	--	<0.005	--	--	**--**	--	<0.0002	<0.015	<0.007	401	0.018	--	<2.0	72.9	13.0	<0.10	7.9	145	<1.0	**1030**
	6/25/2013	<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	0.016	0.15	<0.0020	7.9	<0.0060	--	--	<0.0010	--	--	**--**	--	<0.00020	0.0015	<0.0050	320	<0.0010	710	24**	27	44	<0.50	8.22	4.2	<1	868
	6/10/2014	<0.0010	<0.0010	<0.0010	<0.0015	<0.002	0.019	0.14	<0.0020	7.5	<0.0060	--	--	<0.0010	--	--	**--**	--	<0.00020	<0.0050	<0.0050	350	<0.0050	720	2.3	30	52	<0.50	8.39	7.9	<1	854
MW-3	5/14/2003	<0.0001	<0.001	<0.001	<0.002	<0.0096	<0.01	<0.2	<0.002	28.70	<0.005	--	--	<0.003	--	13.5	--	--	--	--	--	149	--	428	<4.0	19.2	<	<0.5	--	15.5	--	542
	9/24/2004	<0.0005	<0.0007	<0.0008	<0.0008	<0.001	<0.0047	0.150	<0.00076	27.9	<0.0025	--	--	<0.0100	--	13.4	--	--	<0.00028	<0.0059	<0.0020	156	--	419	5.2	19.6	<1.4	<0.40	7.8	14.6	<1.0	493
	6/21/2005	<0.0005	<0.0007	<0.0008	<0.0008	<0.001	0.0108	0.160	<0.00097	26.6	<0.0048	--	--	0.0084	--	12.8	--	--	<0.000062	<0.0094	<0.0020	144	--	415	<2.2	20.6	7.4	<0.40	7.6	13.3	<1.0	488
	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	<0.001	<0.010	0.16	<0.00091	27.4	<0.0023	--	--	<0.0069	--	13.3	--	--	<0.000056	<0.0094	<0.0016	161	--	394	<2.0	19.5	6.8	<0.25	7.7	14.9	<1.0	507
	6/19/2007	<0.0005	<0.0007	<0.0008	<0.0008	<0.001	<0.010	0.143	<0.00090	28.4	<0.0023	--	--	<0.0069	--	13.5	--	--	<0.000056	<0.0094	<0.0016	170	--	417	<2.5	22.1	19.7	<0.25	7.7	17.3	--	510
	7/1/2008	<0.005	<0.005	<0.005	<0.005	<0.005	0.0388	0.307	<0.005	27.5	<0.005	--	4.66	<0.005	--	13.2	--	1.97	<0.002	<0.005	<0.005	151	--	382	<2.0	19.3	7.06	<1	7.64	15.4	12	538
	6/23/2009	<0.005	<0.005	<0.005	<0.005	<0.005	0.00654	0.178	<0.005	29.5	<0.005	0.255	--	<0.005	--	14.5	--	0.703	<0.0002	<0.005	<0.005	172	--	339	<2	23.6	7.5	<0.5	7.74	26.5	<1	519
	6/23/2010	<0.001	<0.001	<0.001	<0.001	<0.0054	<0.0050	0.144	<0.005	27.6	<0.005	<0.02	--	<0.005	--	13.7	**0.480**	--	<0.002	<0.01	<0.005	162	--	148	<2.0	20.5	7.5	<0.5	7.31	18.8	<1	600
	6/28/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0050	<0.005	<0.2	<0.004	--	<0.01	<0.1	--	<0.003	--	14	**0.525**	--	--	<0.005	<0.01	165	--	320	<2.0	23.6	<20	<0.50	7.62	18.7	<1.0	514
	6/19/2012	<0.0010	<0.0010	<0.0010	<0.0030	<0.010	<0.010	0.140	<0.005	25.2	<0.005	--	--	<0.005	--	--	**--**	--	<0.0002	<0.015	<0.007	167	0.0009	--	<2.0	22.4	<10.0	<0.10	7.7	18.8	<1.0	512
	6/25/2013	<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	0.0066	0.14	<0.0020	28	<0.0060	--	--	<0.0010	--	--	**--**	--	<0.00020	0.0016	<0.0050	170	<0.0010	420	5.8	21	<10	<0.10	7.77	14	<1	516
	6/10/2014	<0.002	<0.002	<0.002	<0.003	<0.002	<0.010	0.14	<0.0020	27	<0.0060	--	--	<0.01	--	--	**--**	--	<0.00020	<0.010	<0.0050	150	<0.010	420	3.6	23	19	<0.50	7.97	20	<10	546
NMWQCC Groundwater Quality Standards		**0.01**	**0.75**	**0.75**	**0.62**	**0.03**	**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**NE**	**0.05**	**NE**	**NE**	**0.2**	**NE**	**0.002**	**0.05**	**0.05**	**1140**	**0.03**	**NE**	**30**	**250**	**125**	**10**	**6.00-9.00**	**600**	**NE**	**1000**

Notes:
MW = monitoring well
NMWQCC = New Mexico Water Quality Control Commission
Constituents in **BOLD** are in excess of NMWQCC groundwater quality standards
mg/L = milligrams per liter (parts per million)
< 1.0 = Below laboratory detection limit of 1.0 mg/L
NA = not analyzed
NE = not established
[E] = Value above quantitation range
* = Results reported for total metals analysis, results can not be compared to NMWQCC Standards for dissolved metals
** = Result is reported as an estimate
BOD = Biological oxygen demand
COD = Chemical oxygen demand
TDS = Total dissolved solids

TABLE 3

EVAPORATION POND WATER ANALYTICAL RESULTS SUMMARY
CONOCOPHILLIPS COMPANY
WINGATE FRACTIONATOR PLANT
GALLUP, NEW MEXICO

		Benzene (mg/L)	*Toluene (mg/L)*	*Ethylbenzene (mg/L)*	*Xylenes (total) (mg/L)*	*TPH-GRO (mg/L)*	*Naphthalene (mg/L)*	*Arsenic (dissolved) (mg/L)*	*Barium (dissolved) (mg/L)*	*Cadmium (dissolved) (mg/L)*	*Calcium (mg/L)*	*Chromium (dissolved) (mg/L)*	*Iron (dissolved) (mg/L)*	*Iron (mg/L)*	*Lead (dissolved) (mg/L)*	*Lead (mg/L)*	*Magnesium (dissolved) (mg/L)*	*Manganese (dissolved) (mg/L)*	*Manganese (mg/L)*	*Mercury (mg/L)*	*Selenium (dissolved) (mg/L)*	*Silver (dissolved) (mg/L)*	*Sodium (dissolved) (mg/L)*	*Uranium-238 (mg/L)*	*Alkalinity (mg/L)*	*BOD (mg/L)*	*Chloride (mg/L)*	*COD (mg/L)*	*Nitrate (as N) (mg/L)*	*pH*	*Sulfate (mg/L)*	*Total Coliform (colonies/ 100 mL)*	*TDS (mg/L)*
East Pond	9/23/2004	<0.003	<0.004	<0.004	<0.004	--	<0.001	<0.0047	0.0730	<0.00076	1080	0.0029	--	--	<0.0100	--	625	--	--	<0.000028	0.0061	<0.0020	**12400**	--	148	18.9	**19600**	**150**	<0.40	**9.8**	**6690**	>200.5	**46200**
	6/20/2005	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0731	<0.00097	1010	<0.0048	--	--	<0.0084	--	488	--	--	<0.000062	<0.0094	<0.0020	**9560**	--	110	--	**13000**	--	<0.40	**10.4**	**5090**	--	**31100**
	6/21/2005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.7	--	105	--	--	--	>200.5	--
	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	0.0113	0.117	<0.00091	1400	<0.0023	--	--	<0.0069	--	889	--	--	<0.000056	<0.0094	<0.0016	**9640**	--	156	<11.9	**13000**	**147**	<0.25	**10.4**	**9180**	8.7	**34800**
	6/19/2007	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.01	0.0667	<0.00090	251	<0.0023	--	--	<0.0069	--	161	--	--	<0.000056	<0.0094	<0.0016	**4340**	--	103	<9.8	**5720**	**462**	1.3	**9.8**	**5860**	>200.5	**19700**
	7/2/2008	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	0.0813	<0.005	1070	<0.005	<0.02	--	<0.005	--	736	<0.005	--	<0.002	<0.005	<0.005	**3890**	--	76	<2.0	**4880**	94	<5.0	**10**	**7690**	<1.0	**16200**
	6/24/2009	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	0.0443	<0.005	849	0.00521	<0.02	--	<0.005	--	605	<0.25	--	<0.0002	<0.01	<0.005	**2510**	--	88	4.4	**2270**	67.5	<0.5	**10**	**5360**	4	**13000**
	6/21/2010	<0.01	<0.01	<0.01	<0.01	--	<0.0066	<0.05	<0.05	<0.05	1160	<0.05	<0.2	--	<0.05	--	940	<0.05	--	<0.002	<0.1	<0.05	**3370**	--	143	5.54	**3680**	107	<50	**9.99**	**8320**	>2416.6	**2670**
	6/28/2011	<0.0010	<0.0010	<0.0010	<0.0030	--	<0.0050	0.0073	<0.2	<0.004	--	<0.01	<0.1	--	<0.003	--	979	0.0296	--	--	<0.005	<0.01	**3990**	--	99.0	5.5	**4320**	**132**	<5.0	**9.60**	**10300**	>2416.6	**20600**
	6/19/2012	<0.0010	<0.0010	<0.0010	<0.0030	--	<0.010	<0.010	0.0488	<0.005	997	<0.005	--	--	<0.005	--	--	--	--	<0.0002	<0.015	<0.007	**4670**	0.0121	--	9.4	**4540**	**171**	<0.10	8.7	**10100**	>2419.6	**23300**
	6/25/2013	<0.0020	<0.0020	<0.0020	<0.0030	--	<0.0040	0.011	0.064	<0.0020	720	<0.0060	-	--	<0.010	--	--	--	--	<0.00020	0.025	<0.50	**7900**	0.012	230	5.1**	**6300**	**860**	<1.0	**9.76**	**15000**	>2419.6	**35800**
	6/10/2014	<0.002	<0.002	<0.002	<0.003	--	<0.004	<0.05	0.064	<0.002	710	<0.006	--	--	<0.01	--	--	--	--	<0.0002	<0.05	<0.005	**5300**	<0.01	270	9.8	**4300**	**1400**	<1.0	**9.50**	**10000**	<1.0	**23700**
West Pond	9/23/2004	<0.01	<0.014	<0.016	<0.016	--	<0.001	0.0362	0.0858	<0.00076	698	0.0051	--	--	<0.0100	--	8830	--	--	<0.000028	0.0199	<0.0020	**57900**	**--**	469	**62.5**	**90300**	**1210**	<80	8.5	**29500**	<1.0	**209000**
	6/20/2005	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	0.0253	0.103	0.0016	539	<0.0048	--	--	<0.0840	--	4950	--	--	<0.000062	0.0145	0.0077	**142000**	**--**	357	--	**180000**	--	<1600	7.7	**16400**	--	**369000**
	6/21/2005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.5	--	**775**	--	--	--	<1.0	--
	6/19/2007	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	0.0193	0.0591	<0.00090	34.4	<0.0023	--	--	<0.0069	--	18.1	--	--	0.00012	<0.0094	0.0069	283	--	416	<42.42	**36000**	**10200**	<2.5	7.9	**19600**	<1.0	**361000**
	7/2/2008	<0.005	<0.005	<0.005	<0.005	--	<0.0055	0.0468	0.0207	<0.005	257	0.0062	0.223	--	<0.005	--	14800	--	5.79	<0.0002	0.00788	<0.005	**59900**	--	799	**30.8**	**153000**	**2940**	<50	7.46	**15400**	<1.0	**285000**
	6/24/2009	<0.005	<0.005	<0.005	<0.005	--	<0.005	0.0336	<0.1	<0.1	440	<0.25	0.197	--	<0.1	--	5250	--	1.2	<0.0002	<0.01	<0.1	**68000**	--	435	7.7	**173000**	**1600**	<2500	8.1	**14800**	<1	**397000**
	6/21/2010	<0.01	<0.01	<0.01	<0.01	--	<0.0066	<0.1	<0.1	<0.1	192	<0.1	<0.4	--	<0.1	--	30200	**5.04**	--	<0.002	<0.2	<0.1	**53800**	--	1530	11.6	**165000**	**2950**	<50	7.06	**38100**	<1	**53200**
	6/28/2011	0.0098 J	0.0186 J	0.0066 J	<0.075	--	<0.13	**0.152**	<2	<0.04	--	<0.1	<1	--	<0.06	--	36700	**7.66**	--	--	<0.05	<0.1	**63200**	--	2130	**48.2**	**204000**	**4650**	<50	7.02	**190000**	<1.0	**37400**
	6/19/2012	--	--	--	--	--	--	**--**	--	--	--	**--**	--	--	--	**--**	--	--	--	--	**--**	--	--	--	--	--	--	--	**--**	--	--	--	--
	6/25/2013	--	--	--	--	--	--	**--**	--	--	--	**--**	--	--	--	**--**	--	--	--	--	**--**	--	--	--	--	--	--	--	**--**	--	--	--	--
	6/10/2014	<0.005	<0.005	<0.005	<0.0075	--	<0.01	<0.20	<0.01	<0.01	190	<0.03	--	--	<0.2	**--**	--	--	--	<0.0002	<1.0	<0.025	**84000**	<0.2	1300	**51**	**190000**	**9100**	<1000	7.29	**30000**	<1	**390000**
NMWQCC Groundwater Quality Standards		**0.01**	**0.75**	**0.75**	**0.62**	**--**	**0.03**	**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**NE**	**0.05**	**NE**	**NE**	**0.2**	**NE**	**0.002**	**0.05**	**0.05**	**1140**	**0.03**	**NE**	**30**	**250**	**125**	**10**	**6.00-9.00**	**600**	**NE**	**1000**

Notes:
MW = monitoring well
mg/L = milligrams per liter (parts per million)
< 1.0 = Below laboratory detection limit of 1.0 mg/L
NA = not analyzed
** = Result is reported as an estimate
BOD = Biological oxygen demand
COD = Chemical oxygen demand
TDS = Total dissolved solids

Appendix A

Historical Boring Logs

PROJECT NAME: 3690050
LOCATION: Wingate Gas Fractionating Plant

DRILLED BY: Kleinfelder Drilling
DATE: HOLE STARTED: 6-23-03
DATE: COMPLETED: 6-26-03

REMARKS: bgs = below ground surface
NA=Not Applicable, NS=No Sample
MW=Monitoring Well
msl = mean sea level
TOC = Top of Casing

MONITORING WELL NO. MWR-1
FIELD LOGGED BY: K.Henderson
ELEVATION: GROUND SURFACE (msl): Not Recorded (ft)
GROUNDWATER (below TOC): 5.8 feet bgs (ft)
DRILL TYPE: Hollow Stem Auger
CME 75
BORE HOLE DIAMETER: 10.0 (in)

WELL COMPLETION INFORMATION

Measuring Point Description: Top of Casing
Measuring Point Elevation (feet):
Static Water Level (feet): 5.8
First Occurance of Groundwater (feet): 20.40
Well Development: NA
Well Cap: Locking Metal Above Ground Well Protector

Type of Casing: PVC
Casing Diameter: 2 inches with prepacked screen
Slot Size: 0.010

ELEVATION (msl) - ft	SAMPLE INTERVAL/ID	COMPLETION DIAGRAM	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
0.0			CLAY, trace silt, soft, orangish-brown, damp, trace very thin laminations of white crystalline powder	CL	Hand Auger to 2.5 feet into hard clay	NS	1310	100		0
			CLAY, soft to medium stiff, trace organic material and white crystalline powder, orangish-brown, damp	CL	2-4-5			100	20.3	
-5.0		Static Water Level								5
-10.0		BENTONITE GROUT	CLAY, hard, trace silt and white crystalline powder, damp	CL-CH	6-15-18			100	4.7	10
-15.0		BENTONITE SEAL	CLAY, very stiff, orangish-brown, trace organic material, damp	CH	7-11-17			100	5.7	15

Boring Terminated at 45' bgs

Split Spoon Sample

3690050	MAXIM TECHNOLOGIES INC®	EXPLORATORY BORING LOG	MWR-1

PROJECT NAME: 3690050
LOCATION: Wingate Gas Fractionating Plant

DRILLED BY: Kleinfelder Drilling
DATE: HOLE STARTED: 6-23-03
DATE: COMPLETED: 6-26-03

REMARKS: bgs = below ground surface
NA=Not Applicable, NS=No Sample
MW=Monitoring Well
msl = mean sea level
TOC = Top of Casing

MONITORING WELL NO. MWR-1
FIELD LOGGED BY: K.Henderson
ELEVATION: GROUND SURFACE (msl): Not Recorded (ft)
GROUNDWATER (below TOC): 5.8 feet bgs (ft)
DRILL TYPE: Hollow Stem Auger
CME 75
BORE HOLE DIAMETER: 10.0 (in)

WELL COMPLETION INFORMATION

Measuring Point Description: Top of Casing
Measuring Point Elevation (feet):
Static Water Level (feet): 5.8
First Occurance of Groundwater (feet): 20.40
Well Development: NA
Well Cap: Locking Metal Above Ground Well Protector

Type of Casing: PVC
Casing Diameter: 2 inches with prepacked screen
Slot Size: 0.010

ELEVATION (msl) - ft	SAMPLE INTERVAL/ID	COMPLETION DIAGRAM	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
-20.0		First Occurance of Groundwater	SAND, very fine grained, very loose, orangish-brown, saturated, <1" clay beds at 21.0 and 21.2 bgs	SW-CL	1-3-3			100	2.6	20
			CLAY, trace silt, orangish-brown, soft to medium stiff, damp to moist	CL						
-25.0		SAND PACK	SAND, fine grained, very loose, orangish-brown, saturated, trace black organic material	SW	3-2-1			100	2.2	25
			CLAY and SAND to clay, orangish-brown, damp to moist, interbedded with saturated orangish-brown, fine grained sand	CL-SW						
-30.0			CLAY, silty, soft, orangish-brown, moist	CL	pushed			100	1.0	30
			SAND, fine grained, very loose, saturated, orangish-brown, clayey at 31.5' bgs	CL						
-35.0			SAND, very fine grained, very loose, saturated, orangish-brown, approximately 1" clay layer at 36.8' bgs	SW-CH	pushed			100	1.2	35

Boring Terminated at 45' bgs

Split Spoon Sample

3690050	MAXIM TECHNOLOGIES INC®	EXPLORATORY BORING LOG	MWR-1

PROJECT NAME: 3690050
LOCATION: Wingate Gas Fractionating Plant

DRILLED BY: Kleinfelder Drilling
DATE: HOLE STARTED: 6-23-03
DATE: COMPLETED: 6-26-03

REMARKS: bgs = below ground surface
NA=Not Applicable, NS=No Sample
MW=Monitoring Well
msl = mean sea level
TOC = Top of Casing

MONITORING WELL NO. MWR-1
FIELD LOGGED BY: K.Henderson
ELEVATION: GROUND SURFACE (msl): Not Recorded (ft)
GROUNDWATER (below TOC): 5.8 feet bgs (ft)
DRILL TYPE: Hollow Stem Auger
CME 75
BORE HOLE DIAMETER: 10.0 (in)

WELL COMPLETION INFORMATION

Measuring Point Description: Top of Casing
Measuring Point Elevation (feet):
Static Water Level (feet): 5.8
First Occurance of Groundwater (feet): 20.40
Well Development: NA
Well Cap: Locking Metal Above Ground Well Protector

Type of Casing: PVC
Casing Diameter: 2 inches with prepacked screen
Slot Size: 0.010

ELEVATION (msl) - ft	SAMPLE INTERVAL/ID	COMPLETION DIAGRAM	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
-40.0		Threaded Bottom Cap	SAND, fine and medium grained, saturated, brownish-gray, very loose	SW-CH						40
			CLAY, orangish-borwn, moist to wet, silty at 40.4' bgs	CL	pushed			100	0.4	
			SAND, fine and medium grained, very loose, brownish-gray and orangish-brown, saturated, <1" clay beds at 45.4 and 46.8 feet bgs	SW						
-45.0					pushed		1415	100	0.5	45

Boring Terminated at 45' bgs

Split Spoon Sample

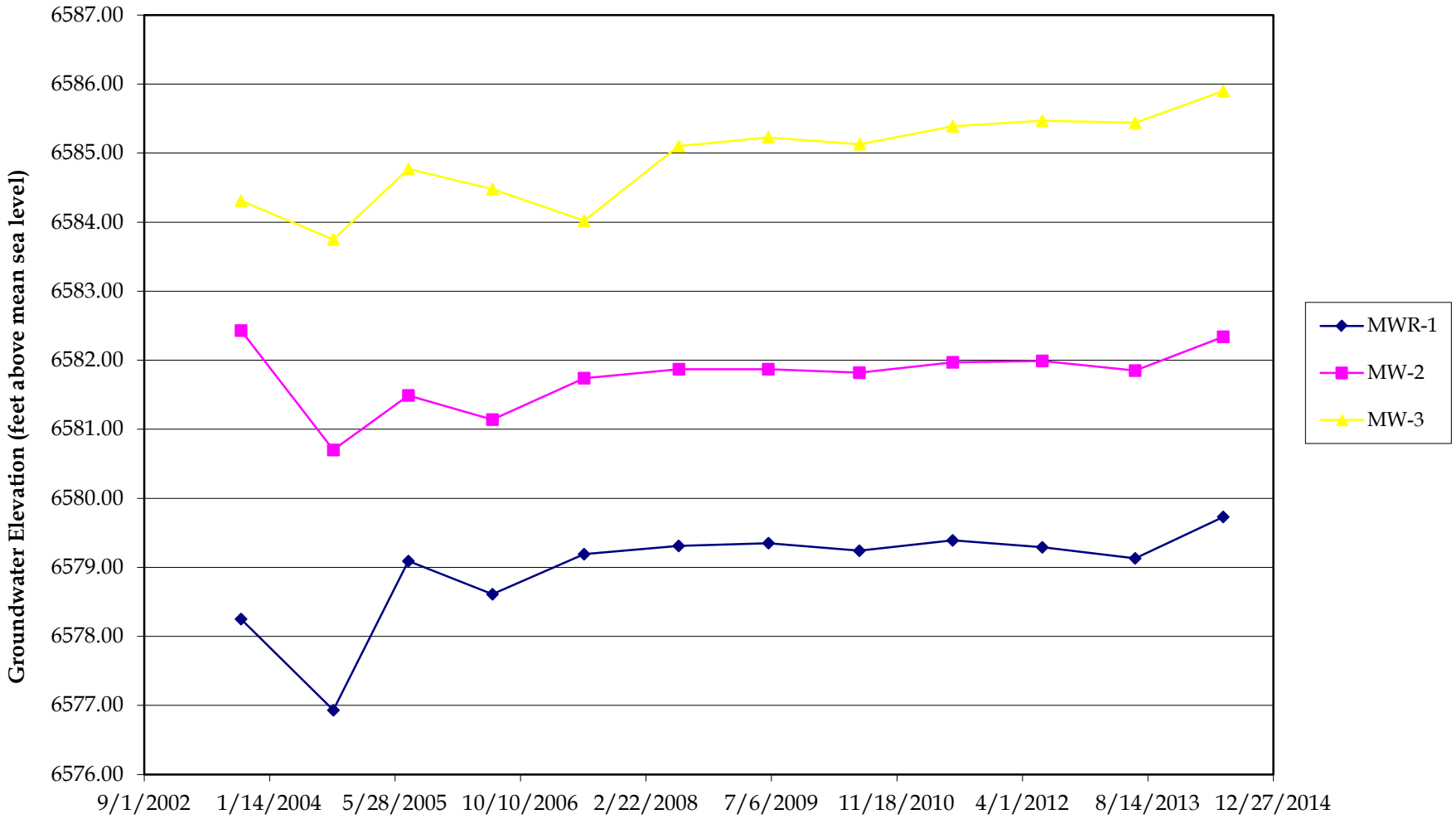
3690050	MAXIM TECHNOLOGIES INC®	EXPLORATORY BORING LOG	MWR-1

Appendix B

Analytical Concentrations vs. Time Graphs and Site Hydrographs

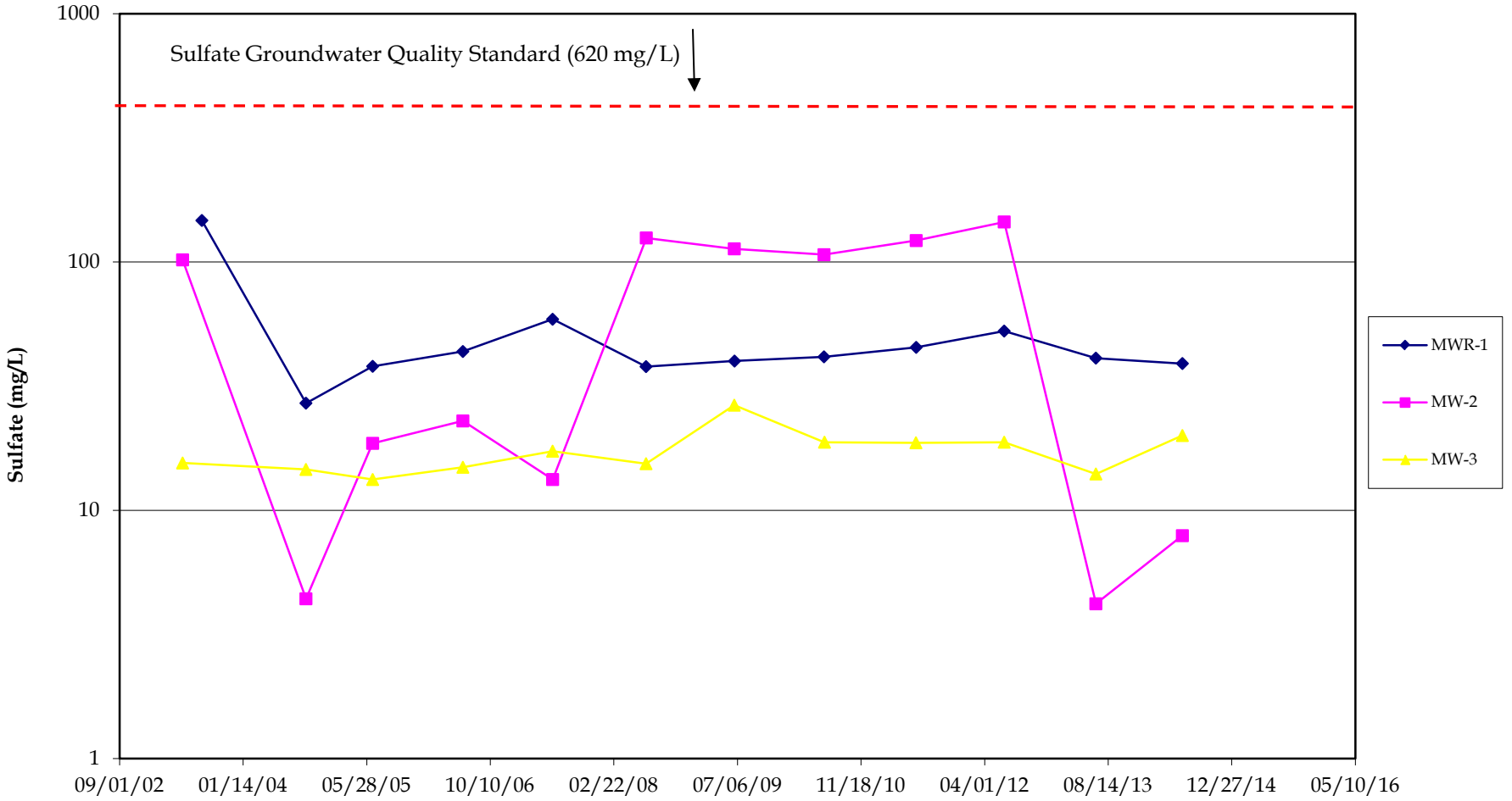
ConocoPhillips Company
Wingate Fractionator Plant

Groundwater Elevations vs. Time in Wingate Monitor Wells



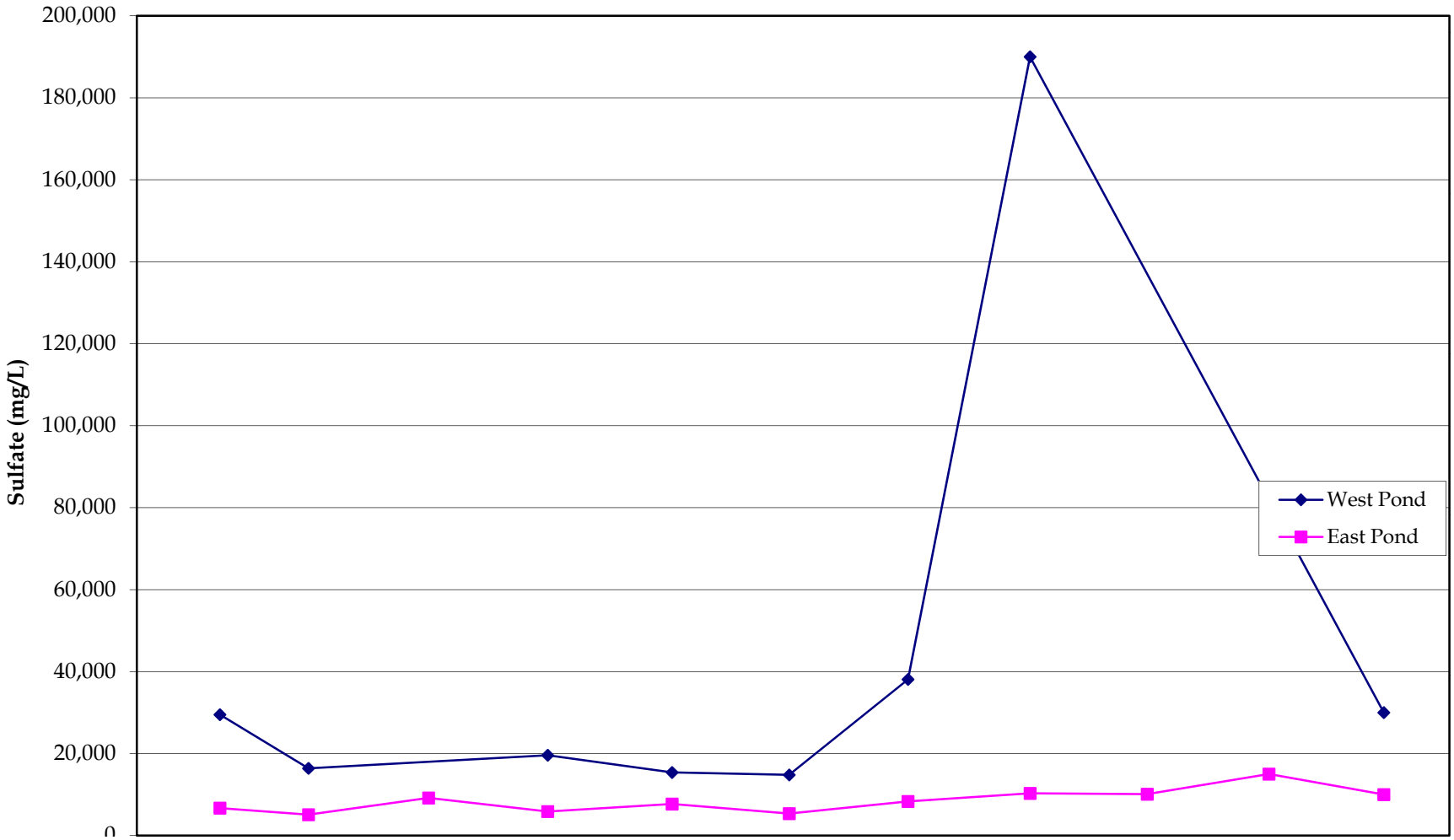
ConocoPhillips Company
Wingate Fractionator Plant

Sulfate (mg/L) vs Time in Wingate Monitor Wells



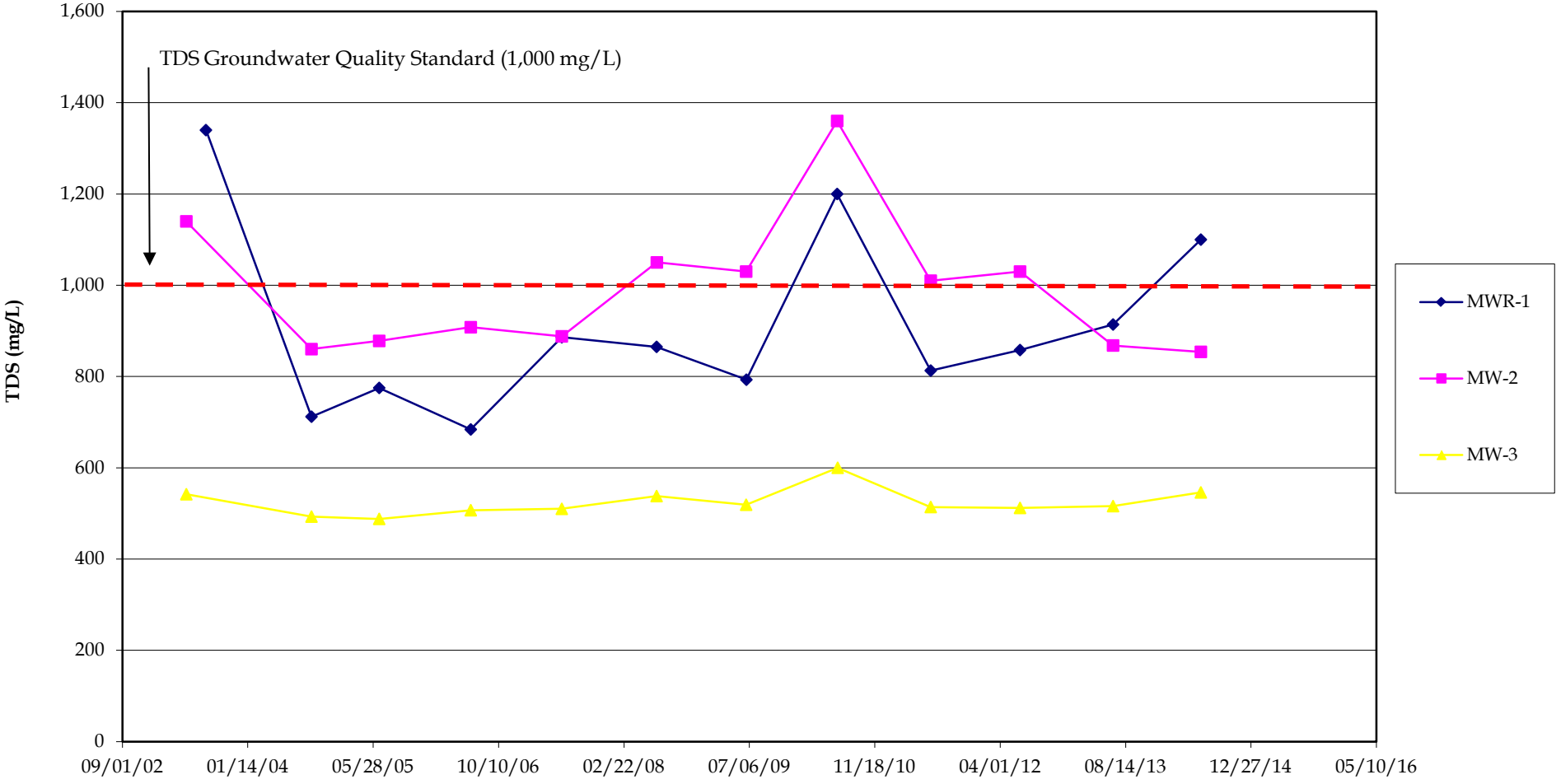
ConocoPhillips Company
Wingate Fractionator Plant

Sulfate vs. Time in Wingate Evaporation Ponds



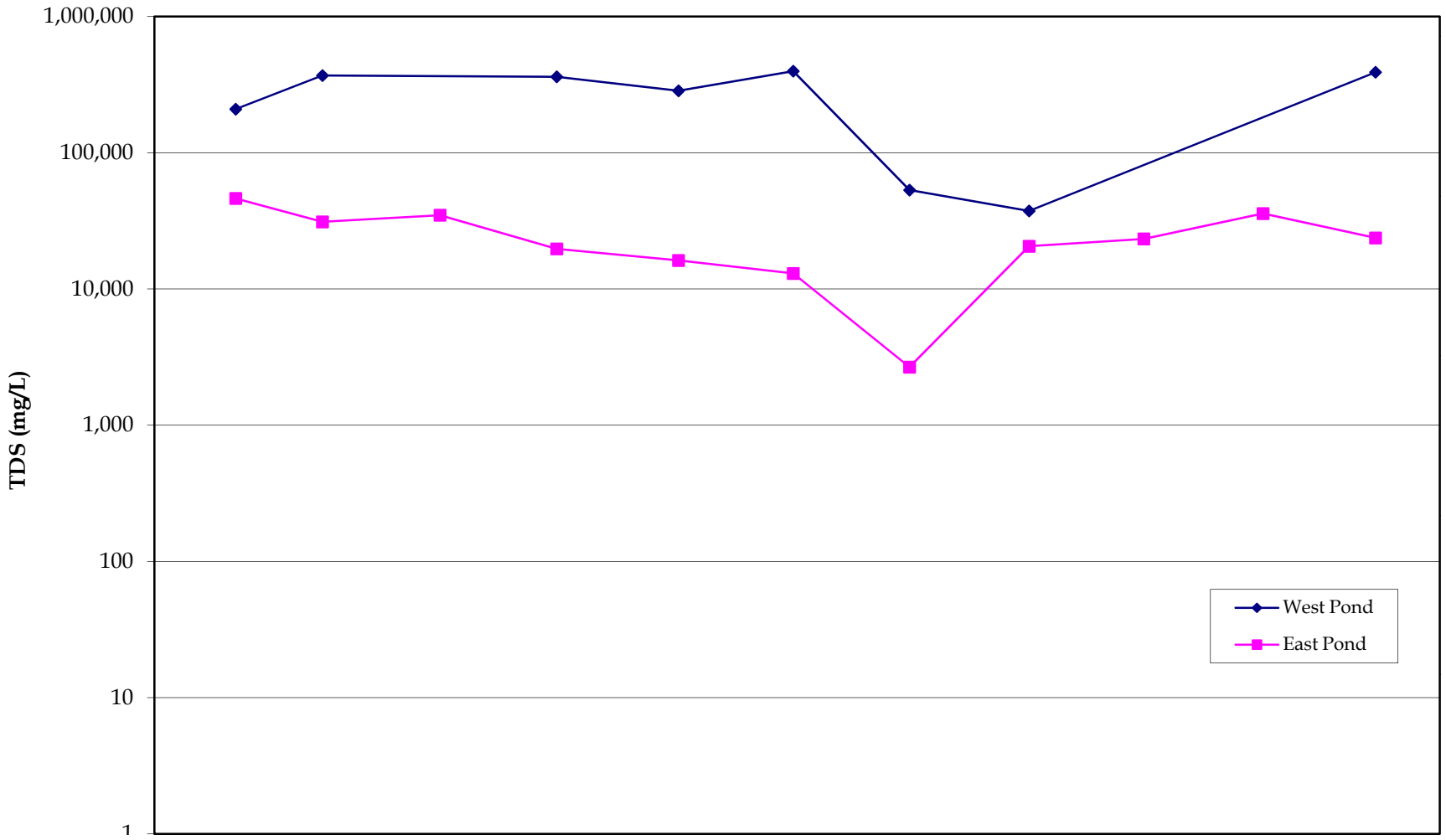
ConocoPhillips Company
Wingate Fractionator Plant

Total Dissolved Solids vs. Time in Wingate Monitor Wells



ConocoPhillips Company
Wingate Fractionator Plant

Total Dissolved Solids vs. Time in Wingate Evaporation Ponds



Appendix C

Laboratory Analytical Report

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 23, 2014

Jeff Walker
CRA
6121 Indian School #200
Albuquerque, NM 87110
TEL: (505) 884-0672
FAX

RE: Wingate Fractionator Ponds OrderNo.: 1406462

Dear Jeff Walker:

Hall Environmental Analysis Laboratory received 6 sample(s) on 6/10/2014 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 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 qualifers 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,

John Caldwell

John Caldwell
Supervisor
4901 Hawkins NE
Albuquerque, NM 87109

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Case Narrative

WO#: **1406462**
Date: **6/23/2014**

CLIENT: CRA
Project: Wingate Fractionator Ponds

Analytical Comments regarding BOD:
Estimated value due to all 5 bottles having a DO Depletion <2.0 mg/L

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: GW-075167-061014-CM-MW-2
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 9:35:00 AM
Lab ID: 1406462-001 **Matrix:** AQUEOUS **Received Date:** 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	30	2.5		mg/L	5	6/11/2014 9:24:12 PM	R19222
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	6/11/2014 9:24:12 PM	R19222
Sulfate	7.9	2.5		mg/L	5	6/11/2014 9:24:12 PM	R19222
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**	
Barium	0.14	0.0020		mg/L	1	6/13/2014 3:36:50 PM	R19281
Cadmium	ND	0.0020		mg/L	1	6/13/2014 3:36:50 PM	R19281
Calcium	7.5	1.0		mg/L	1	6/13/2014 3:36:50 PM	R19281
Chromium	ND	0.0060		mg/L	1	6/13/2014 3:36:50 PM	R19281
Silver	ND	0.0050		mg/L	1	6/13/2014 3:36:50 PM	R19281
Sodium	350	10		mg/L	10	6/19/2014 11:38:46 AM	R19380
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**	
Arsenic	0.019	0.0010	*	mg/L	1	6/18/2014 5:08:30 PM	R19364
Lead	ND	0.0010		mg/L	1	6/18/2014 5:08:30 PM	R19364
Selenium	ND	0.0050		mg/L	5	6/19/2014 3:20:30 PM	R19391
Uranium	ND	0.0050		mg/L	5	6/19/2014 3:20:30 PM	R19391
EPA METHOD 245.1: MERCURY						Analyst: **MMD**	
Mercury	ND	0.00020		mg/L	1	6/18/2014 10:55:45 AM	13741
SM5210B: BOD						Analyst: **SMS**	
Biochemical Oxygen Demand	2.3	2.0		mg/L	1	6/16/2014 2:19:00 PM	13639
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **SMS**	
E. Coli	<1	1.000	H	CFU/100ml	1	6/11/2014 6:40:00 PM	13619
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Acenaphthylene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Aniline	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Anthracene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Azobenzene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Benz(a)anthracene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Benzo(a)pyrene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Benzo(b)fluoranthene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Benzo(k)fluoranthene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Benzoic acid	ND	20		µg/L	1	6/12/2014 3:08:35 PM	13650
Benzyl alcohol	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650

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

Qualifiers:

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: GW-075167-061014-CM-MW-2
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 9:35:00 AM
Lab ID: 1406462-001 **Matrix:** AQUEOUS **Received Date:** 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Butyl benzyl phthalate	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Carbazole	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
4-Chloroaniline	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
2-Chloronaphthalene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
2-Chlorophenol	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Chrysene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Di-n-butyl phthalate	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Di-n-octyl phthalate	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Dibenzofuran	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
1,2-Dichlorobenzene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
1,3-Dichlorobenzene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
1,4-Dichlorobenzene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
3,3´-Dichlorobenzidine	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Diethyl phthalate	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Dimethyl phthalate	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
2,4-Dichlorophenol	ND	20		µg/L	1	6/12/2014 3:08:35 PM	13650
2,4-Dimethylphenol	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/12/2014 3:08:35 PM	13650
2,4-Dinitrophenol	ND	20		µg/L	1	6/12/2014 3:08:35 PM	13650
2,4-Dinitrotoluene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
2,6-Dinitrotoluene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Fluoranthene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Fluorene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Hexachlorobenzene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Hexachlorobutadiene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Hexachloroethane	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Isophorone	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
1-Methylnaphthalene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
2-Methylnaphthalene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
2-Methylphenol	ND	20		µg/L	1	6/12/2014 3:08:35 PM	13650
3+4-Methylphenol	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650

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Lab ID: 1406462-001 **Matrix:** AQUEOUS **Received Date:** 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
N-Nitrosodimethylamine	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Naphthalene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
2-Nitroaniline	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
3-Nitroaniline	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
4-Nitroaniline	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Nitrobenzene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
2-Nitrophenol	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
4-Nitrophenol	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Pentachlorophenol	ND	20		µg/L	1	6/12/2014 3:08:35 PM	13650
Phenanthrene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Phenol	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Pyrene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Pyridine	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/12/2014 3:08:35 PM	13650
Surr: 2-Fluorophenol	64.6	12.1-85.8		%REC	1	6/12/2014 3:08:35 PM	13650
Surr: Phenol-d5	51.6	17.7-65.8		%REC	1	6/12/2014 3:08:35 PM	13650
Surr: 2,4,6-Tribromophenol	76.9	26-138		%REC	1	6/12/2014 3:08:35 PM	13650
Surr: Nitrobenzene-d5	96.4	47.5-119		%REC	1	6/12/2014 3:08:35 PM	13650
Surr: 2-Fluorobiphenyl	89.0	48.1-106		%REC	1	6/12/2014 3:08:35 PM	13650
Surr: 4-Terphenyl-d14	84.9	44-113		%REC	1	6/12/2014 3:08:35 PM	13650
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Toluene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Ethylbenzene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Naphthalene	ND	2.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1-Methylnaphthalene	ND	4.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
2-Methylnaphthalene	ND	4.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Acetone	ND	10		µg/L	1	6/13/2014 1:40:26 PM	R19278
Bromobenzene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Bromodichloromethane	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: GW-075167-061014-CM-MW-2
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 9:35:00 AM
Lab ID: 1406462-001 **Matrix:** AQUEOUS **Received Date:** 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Bromoform	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Bromomethane	ND	3.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
2-Butanone	ND	10		µg/L	1	6/13/2014 1:40:26 PM	R19278
Carbon disulfide	ND	10		µg/L	1	6/13/2014 1:40:26 PM	R19278
Carbon Tetrachloride	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Chlorobenzene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Chloroethane	ND	2.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Chloroform	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Chloromethane	ND	3.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
2-Chlorotoluene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
4-Chlorotoluene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
cis-1,2-DCE	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Dibromochloromethane	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Dibromomethane	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,1-Dichloroethane	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,1-Dichloroethene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,2-Dichloropropane	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,3-Dichloropropane	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
2,2-Dichloropropane	ND	2.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,1-Dichloropropene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Hexachlorobutadiene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
2-Hexanone	ND	10		µg/L	1	6/13/2014 1:40:26 PM	R19278
Isopropylbenzene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
4-Isopropyltoluene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
4-Methyl-2-pentanone	ND	10		µg/L	1	6/13/2014 1:40:26 PM	R19278
Methylene Chloride	ND	3.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
n-Butylbenzene	ND	3.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
n-Propylbenzene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
sec-Butylbenzene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Styrene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
tert-Butylbenzene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/13/2014 1:40:26 PM	R19278

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

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Lab ID: 1406462-001 **Matrix:** AQUEOUS **Received Date:** 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
trans-1,2-DCE	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Trichlorofluoromethane	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Vinyl chloride	ND	1.0		µg/L	1	6/13/2014 1:40:26 PM	R19278
Xylenes, Total	ND	1.5		µg/L	1	6/13/2014 1:40:26 PM	R19278
Surr: 1,2-Dichloroethane-d4	95.6	70-130		%REC	1	6/13/2014 1:40:26 PM	R19278
Surr: 4-Bromofluorobenzene	79.0	70-130		%REC	1	6/13/2014 1:40:26 PM	R19278
Surr: Dibromofluoromethane	85.8	70-130		%REC	1	6/13/2014 1:40:26 PM	R19278
Surr: Toluene-d8	101	70-130		%REC	1	6/13/2014 1:40:26 PM	R19278
SM4500-H+B: PH						Analyst: **JRR**	
pH	8.39	1.68	H	pH units	1	6/11/2014 4:16:38 PM	R19213
SM2320B: ALKALINITY						Analyst: **JRR**	
Bicarbonate (As CaCO3)	710	20		mg/L CaCO3	1	6/11/2014 4:16:38 PM	R19213
Carbonate (As CaCO3)	10	2.0		mg/L CaCO3	1	6/11/2014 4:16:38 PM	R19213
Total Alkalinity (as CaCO3)	720	20		mg/L CaCO3	1	6/11/2014 4:16:38 PM	R19213
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	854	40.0	*	mg/L	1	6/13/2014 5:37:00 PM	13668

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Qualifiers:

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: GW-075167-061014-CM-MWR-
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 11:25:00 AM
Lab ID: 1406462-002 **Matrix:** AQUEOUS **Received Date:** 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	27	2.5		mg/L	5	6/11/2014 9:49:02 PM	R19222
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	6/11/2014 9:49:02 PM	R19222
Sulfate	39	2.5		mg/L	5	6/11/2014 9:49:02 PM	R19222
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**	
Barium	0.27	0.0020		mg/L	1	6/13/2014 3:42:43 PM	R19281
Cadmium	ND	0.0020		mg/L	1	6/13/2014 3:42:43 PM	R19281
Calcium	9.9	1.0		mg/L	1	6/13/2014 3:42:43 PM	R19281
Chromium	ND	0.0060		mg/L	1	6/13/2014 3:42:43 PM	R19281
Silver	ND	0.0050		mg/L	1	6/13/2014 3:42:43 PM	R19281
Sodium	330	10		mg/L	10	6/19/2014 11:40:28 AM	R19380
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**	
Arsenic	0.0014	0.0010		mg/L	1	6/18/2014 5:13:29 PM	R19364
Lead	ND	0.0010		mg/L	1	6/18/2014 5:13:29 PM	R19364
Selenium	ND	0.010		mg/L	10	6/19/2014 3:48:40 PM	R19391
Uranium	ND	0.010		mg/L	10	6/19/2014 3:48:40 PM	R19391
EPA METHOD 245.1: MERCURY						Analyst: **MMD**	
Mercury	ND	0.00020		mg/L	1	6/18/2014 10:57:35 AM	13741
SM5210B: BOD						Analyst: **SMS**	
Biochemical Oxygen Demand	<0.86	2.0	E	mg/L	1	6/16/2014 2:19:00 PM	13639
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **SMS**	
E. Coli	<10	10.00		CFU/100ml	10	6/11/2014 6:40:00 PM	13619
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Acenaphthylene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Aniline	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Anthracene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Azobenzene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Benz(a)anthracene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Benzo(a)pyrene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Benzo(b)fluoranthene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Benzo(k)fluoranthene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Benzoic acid	ND	20		µg/L	1	6/12/2014 3:37:54 PM	13650
Benzyl alcohol	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: GW-075167-061014-CM-MWR-
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 11:25:00 AM
Lab ID: 1406462-002 **Matrix:** AQUEOUS **Received Date:** 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Butyl benzyl phthalate	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Carbazole	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
4-Chloroaniline	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
2-Chloronaphthalene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
2-Chlorophenol	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Chrysene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Di-n-butyl phthalate	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Di-n-octyl phthalate	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Dibenzofuran	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
1,2-Dichlorobenzene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
1,3-Dichlorobenzene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
1,4-Dichlorobenzene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
3,3´-Dichlorobenzidine	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Diethyl phthalate	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Dimethyl phthalate	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
2,4-Dichlorophenol	ND	20		µg/L	1	6/12/2014 3:37:54 PM	13650
2,4-Dimethylphenol	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/12/2014 3:37:54 PM	13650
2,4-Dinitrophenol	ND	20		µg/L	1	6/12/2014 3:37:54 PM	13650
2,4-Dinitrotoluene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
2,6-Dinitrotoluene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Fluoranthene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Fluorene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Hexachlorobenzene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Hexachlorobutadiene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Hexachloroethane	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Isophorone	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
1-Methylnaphthalene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
2-Methylnaphthalene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
2-Methylphenol	ND	20		µg/L	1	6/12/2014 3:37:54 PM	13650
3+4-Methylphenol	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: GW-075167-061014-CM-MWR-
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 11:25:00 AM
Lab ID: 1406462-002 **Matrix:** AQUEOUS **Received Date:** 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
N-Nitrosodimethylamine	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Naphthalene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
2-Nitroaniline	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
3-Nitroaniline	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
4-Nitroaniline	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Nitrobenzene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
2-Nitrophenol	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
4-Nitrophenol	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Pentachlorophenol	ND	20		µg/L	1	6/12/2014 3:37:54 PM	13650
Phenanthrene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Phenol	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Pyrene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Pyridine	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/12/2014 3:37:54 PM	13650
Surr: 2-Fluorophenol	66.7	12.1-85.8		%REC	1	6/12/2014 3:37:54 PM	13650
Surr: Phenol-d5	51.2	17.7-65.8		%REC	1	6/12/2014 3:37:54 PM	13650
Surr: 2,4,6-Tribromophenol	80.1	26-138		%REC	1	6/12/2014 3:37:54 PM	13650
Surr: Nitrobenzene-d5	98.5	47.5-119		%REC	1	6/12/2014 3:37:54 PM	13650
Surr: 2-Fluorobiphenyl	87.2	48.1-106		%REC	1	6/12/2014 3:37:54 PM	13650
Surr: 4-Terphenyl-d14	78.0	44-113		%REC	1	6/12/2014 3:37:54 PM	13650
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Toluene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Ethylbenzene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Naphthalene	ND	2.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1-Methylnaphthalene	ND	4.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
2-Methylnaphthalene	ND	4.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Acetone	ND	10		µg/L	1	6/13/2014 3:38:41 PM	R19278
Bromobenzene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Bromodichloromethane	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: GW-075167-061014-CM-MWR-
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 11:25:00 AM
Lab ID: 1406462-002 **Matrix:** AQUEOUS **Received Date:** 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Bromoform	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Bromomethane	ND	3.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
2-Butanone	ND	10		µg/L	1	6/13/2014 3:38:41 PM	R19278
Carbon disulfide	ND	10		µg/L	1	6/13/2014 3:38:41 PM	R19278
Carbon Tetrachloride	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Chlorobenzene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Chloroethane	ND	2.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Chloroform	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Chloromethane	ND	3.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
2-Chlorotoluene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
4-Chlorotoluene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
cis-1,2-DCE	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Dibromochloromethane	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Dibromomethane	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,1-Dichloroethane	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,1-Dichloroethene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,2-Dichloropropane	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,3-Dichloropropane	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
2,2-Dichloropropane	ND	2.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,1-Dichloropropene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Hexachlorobutadiene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
2-Hexanone	ND	10		µg/L	1	6/13/2014 3:38:41 PM	R19278
Isopropylbenzene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
4-Isopropyltoluene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
4-Methyl-2-pentanone	ND	10		µg/L	1	6/13/2014 3:38:41 PM	R19278
Methylene Chloride	ND	3.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
n-Butylbenzene	ND	3.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
n-Propylbenzene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
sec-Butylbenzene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Styrene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
tert-Butylbenzene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/13/2014 3:38:41 PM	R19278

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Hall Environmental Analysis Laboratory, Inc.

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Lab ID: 1406462-002 **Matrix:** AQUEOUS **Received Date:** 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
trans-1,2-DCE	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Trichlorofluoromethane	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Vinyl chloride	ND	1.0		µg/L	1	6/13/2014 3:38:41 PM	R19278
Xylenes, Total	ND	1.5		µg/L	1	6/13/2014 3:38:41 PM	R19278
Surr: 1,2-Dichloroethane-d4	97.7	70-130		%REC	1	6/13/2014 3:38:41 PM	R19278
Surr: 4-Bromofluorobenzene	77.5	70-130		%REC	1	6/13/2014 3:38:41 PM	R19278
Surr: Dibromofluoromethane	87.1	70-130		%REC	1	6/13/2014 3:38:41 PM	R19278
Surr: Toluene-d8	102	70-130		%REC	1	6/13/2014 3:38:41 PM	R19278
SM4500-H+B: PH						Analyst: **JRR**	
pH	8.29	1.68	H	pH units	1	6/11/2014 4:48:24 PM	R19213
SM2320B: ALKALINITY						Analyst: **JRR**	
Bicarbonate (As CaCO3)	700	20		mg/L CaCO3	1	6/11/2014 4:48:24 PM	R19213
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	6/11/2014 4:48:24 PM	R19213
Total Alkalinity (as CaCO3)	700	20		mg/L CaCO3	1	6/11/2014 4:48:24 PM	R19213
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1100	100	*	mg/L	1	6/13/2014 5:37:00 PM	13668

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	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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: SW-075167-061014-CM-West
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 12:00:00 PM
Lab ID: 1406462-003
Matrix: AQUEOUS
Received Date: 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	190000	25000	*	mg/L	5E	6/20/2014 3:17:25 PM	R19420
Sulfate	30000	2500	*	mg/L	5E	6/20/2014 3:05:01 PM	R19420
Nitrate+Nitrite as N	ND	1000		mg/L	5E	6/20/2014 1:22:18 PM	R19420
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**	
Barium	ND	0.010		mg/L	5	6/13/2014 4:05:16 PM	R19281
Cadmium	ND	0.010		mg/L	5	6/13/2014 4:05:16 PM	R19281
Calcium	190	5.0		mg/L	5	6/13/2014 4:05:16 PM	R19281
Chromium	ND	0.030		mg/L	5	6/13/2014 4:05:16 PM	R19281
Silver	ND	0.025		mg/L	5	6/13/2014 4:05:16 PM	R19281
Sodium	84000	5000		mg/L	5E	6/19/2014 11:42:10 AM	R19380
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**	
Arsenic	ND	0.20	*	mg/L	200	6/19/2014 5:06:06 PM	R19391
Lead	ND	0.20		mg/L	200	6/19/2014 5:06:06 PM	R19391
Selenium	ND	1.0	*	mg/L	100	6/19/2014 4:06:57 PM	R19391
Uranium	ND	0.20		mg/L	200	6/19/2014 5:06:06 PM	R19391
EPA METHOD 245.1: MERCURY						Analyst: **MMD**	
Mercury	ND	0.00020		mg/L	1	6/18/2014 10:59:26 AM	13741
SM5210B: BOD						Analyst: **SMS**	
Biochemical Oxygen Demand	51	2.0		mg/L	1	6/16/2014 2:19:00 PM	13639
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **SMS**	
E. Coli	<1	1.000		CFU/100ml	1	6/11/2014 6:40:00 PM	13619
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Acenaphthylene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Aniline	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Anthracene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Azobenzene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Benz(a)anthracene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Benzo(a)pyrene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Benzo(b)fluoranthene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Benzo(k)fluoranthene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Benzoic acid	ND	100		µg/L	1	6/12/2014 8:02:21 PM	13650
Benzyl alcohol	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: SW-075167-061014-CM-West
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 12:00:00 PM
Lab ID: 1406462-003
Matrix: AQUEOUS
Received Date: 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Butyl benzyl phthalate	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Carbazole	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
4-Chloroaniline	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
2-Chloronaphthalene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
2-Chlorophenol	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Chrysene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Di-n-butyl phthalate	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Di-n-octyl phthalate	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Dibenzofuran	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
1,2-Dichlorobenzene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
1,3-Dichlorobenzene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
1,4-Dichlorobenzene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
3,3´-Dichlorobenzidine	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Diethyl phthalate	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Dimethyl phthalate	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
2,4-Dichlorophenol	ND	100		µg/L	1	6/12/2014 8:02:21 PM	13650
2,4-Dimethylphenol	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/12/2014 8:02:21 PM	13650
2,4-Dinitrophenol	ND	100		µg/L	1	6/12/2014 8:02:21 PM	13650
2,4-Dinitrotoluene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
2,6-Dinitrotoluene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Fluoranthene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Fluorene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Hexachlorobenzene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Hexachlorobutadiene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Hexachloroethane	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Isophorone	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
1-Methylnaphthalene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
2-Methylnaphthalene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
2-Methylphenol	ND	100		µg/L	1	6/12/2014 8:02:21 PM	13650
3+4-Methylphenol	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: SW-075167-061014-CM-West
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 12:00:00 PM
Lab ID: 1406462-003 **Matrix:** AQUEOUS **Received Date:** 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
N-Nitrosodimethylamine	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Naphthalene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
2-Nitroaniline	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
3-Nitroaniline	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
4-Nitroaniline	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Nitrobenzene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
2-Nitrophenol	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
4-Nitrophenol	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Pentachlorophenol	ND	100		µg/L	1	6/12/2014 8:02:21 PM	13650
Phenanthrene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Phenol	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Pyrene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Pyridine	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/12/2014 8:02:21 PM	13650
Surr: 2-Fluorophenol	78.0	12.1-85.8		%REC	1	6/12/2014 8:02:21 PM	13650
Surr: Phenol-d5	81.6	17.7-65.8	S	%REC	1	6/12/2014 8:02:21 PM	13650
Surr: 2,4,6-Tribromophenol	69.8	26-138		%REC	1	6/12/2014 8:02:21 PM	13650
Surr: Nitrobenzene-d5	90.2	47.5-119		%REC	1	6/12/2014 8:02:21 PM	13650
Surr: 2-Fluorobiphenyl	66.6	48.1-106		%REC	1	6/12/2014 8:02:21 PM	13650
Surr: 4-Terphenyl-d14	65.2	44-113		%REC	1	6/12/2014 8:02:21 PM	13650
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
Toluene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
Ethylbenzene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
Naphthalene	ND	10		µg/L	5	6/17/2014 2:51:26 PM	R19339
1-Methylnaphthalene	ND	20		µg/L	5	6/17/2014 2:51:26 PM	R19339
2-Methylnaphthalene	ND	20		µg/L	5	6/17/2014 2:51:26 PM	R19339
Acetone	ND	50		µg/L	5	6/17/2014 2:51:26 PM	R19339
Bromobenzene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
Bromodichloromethane	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: SW-075167-061014-CM-West
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 12:00:00 PM
Lab ID: 1406462-003
Matrix: AQUEOUS
Received Date: 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Bromoform	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
Bromomethane	ND	15		µg/L	5	6/17/2014 2:51:26 PM	R19339
2-Butanone	ND	50		µg/L	5	6/17/2014 2:51:26 PM	R19339
Carbon disulfide	ND	50		µg/L	5	6/17/2014 2:51:26 PM	R19339
Carbon Tetrachloride	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
Chlorobenzene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
Chloroethane	ND	10		µg/L	5	6/17/2014 2:51:26 PM	R19339
Chloroform	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
Chloromethane	ND	15		µg/L	5	6/17/2014 2:51:26 PM	R19339
2-Chlorotoluene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
4-Chlorotoluene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
cis-1,2-DCE	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	6/17/2014 2:51:26 PM	R19339
Dibromochloromethane	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
Dibromomethane	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,2-Dichlorobenzene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,3-Dichlorobenzene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,4-Dichlorobenzene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
Dichlorodifluoromethane	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,1-Dichloroethane	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,1-Dichloroethene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,2-Dichloropropane	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,3-Dichloropropane	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
2,2-Dichloropropane	ND	10		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,1-Dichloropropene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
Hexachlorobutadiene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
2-Hexanone	ND	50		µg/L	5	6/17/2014 2:51:26 PM	R19339
Isopropylbenzene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
4-Isopropyltoluene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
4-Methyl-2-pentanone	ND	50		µg/L	5	6/17/2014 2:51:26 PM	R19339
Methylene Chloride	ND	15		µg/L	5	6/17/2014 2:51:26 PM	R19339
n-Butylbenzene	ND	15		µg/L	5	6/17/2014 2:51:26 PM	R19339
n-Propylbenzene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
sec-Butylbenzene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
Styrene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
tert-Butylbenzene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	6/17/2014 2:51:26 PM	R19339

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: SW-075167-061014-CM-West
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 12:00:00 PM
Lab ID: 1406462-003
Matrix: AQUEOUS
Received Date: 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
trans-1,2-DCE	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,1,1-Trichloroethane	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,1,2-Trichloroethane	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
Trichloroethene (TCE)	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
Trichlorofluoromethane	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
1,2,3-Trichloropropane	ND	10		µg/L	5	6/17/2014 2:51:26 PM	R19339
Vinyl chloride	ND	5.0		µg/L	5	6/17/2014 2:51:26 PM	R19339
Xylenes, Total	ND	7.5		µg/L	5	6/17/2014 2:51:26 PM	R19339
Surr: 1,2-Dichloroethane-d4	95.4	70-130		%REC	5	6/17/2014 2:51:26 PM	R19339
Surr: 4-Bromofluorobenzene	95.4	70-130		%REC	5	6/17/2014 2:51:26 PM	R19339
Surr: Dibromofluoromethane	92.0	70-130		%REC	5	6/17/2014 2:51:26 PM	R19339
Surr: Toluene-d8	94.1	70-130		%REC	5	6/17/2014 2:51:26 PM	R19339
SM4500-H+B: PH						Analyst: **JRR**	
pH	7.29	1.68	H	pH units	1	6/11/2014 5:13:11 PM	R19213
SM2320B: ALKALINITY						Analyst: **JRR**	
Bicarbonate (As CaCO3)	1300	50		mg/L CaCO3	2.5	6/17/2014 6:09:29 PM	R19377
Carbonate (As CaCO3)	ND	5.0		mg/L CaCO3	2.5	6/17/2014 6:09:29 PM	R19377
Total Alkalinity (as CaCO3)	1300	50		mg/L CaCO3	2.5	6/17/2014 6:09:29 PM	R19377
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	390000	2000	*	mg/L	1	6/13/2014 5:37:00 PM	13668

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: SW-075167-061014-CM-East
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 12:35:00 PM
Lab ID: 1406462-004
Matrix: AQUEOUS
Received Date: 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	4300	500	*	mg/L	1E	6/20/2014 1:09:53 PM	R19420
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	6/11/2014 10:38:42 PM	R19222
Sulfate	10000	500	*	mg/L	1E	6/20/2014 1:09:53 PM	R19420
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**	
Barium	0.064	0.0020		mg/L	1	6/13/2014 3:46:15 PM	R19281
Cadmium	ND	0.0020		mg/L	1	6/13/2014 3:46:15 PM	R19281
Calcium	710	10		mg/L	10	6/19/2014 11:43:51 AM	R19380
Chromium	ND	0.0060		mg/L	1	6/13/2014 3:46:15 PM	R19281
Silver	ND	0.0050		mg/L	1	6/13/2014 3:46:15 PM	R19281
Sodium	5300	100		mg/L	100	6/19/2014 11:45:43 AM	R19380
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**	
Arsenic	ND	0.050		mg/L	50	6/19/2014 5:12:13 PM	R19391
Lead	ND	0.010		mg/L	10	6/19/2014 3:54:44 PM	R19391
Selenium	ND	0.050		mg/L	50	6/19/2014 5:12:13 PM	R19391
Uranium	ND	0.010		mg/L	10	6/19/2014 3:54:44 PM	R19391
EPA METHOD 245.1: MERCURY						Analyst: **MMD**	
Mercury	ND	0.00020		mg/L	1	6/18/2014 11:05:01 AM	13741
SM5210B: BOD						Analyst: **SMS**	
Biochemical Oxygen Demand	9.8	2.0		mg/L	1	6/16/2014 2:19:00 PM	13639
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **SMS**	
E. Coli	<1	1.000		CFU/100ml	1	6/11/2014 6:40:00 PM	13619
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Acenaphthylene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Aniline	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Anthracene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Azobenzene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Benz(a)anthracene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Benzo(a)pyrene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Benzo(b)fluoranthene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Benzo(k)fluoranthene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Benzoic acid	ND	100		µg/L	1	6/12/2014 4:07:23 PM	13650
Benzyl alcohol	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650

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Qualifiers:

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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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: SW-075167-061014-CM-East
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 12:35:00 PM
Lab ID: 1406462-004
Matrix: AQUEOUS
Received Date: 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Bis(2-ethylhexyl)phthalate	53	50		µg/L	1	6/12/2014 4:07:23 PM	13650
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Butyl benzyl phthalate	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Carbazole	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
4-Chloroaniline	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
2-Chloronaphthalene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
2-Chlorophenol	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Chrysene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Di-n-butyl phthalate	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Di-n-octyl phthalate	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Dibenzofuran	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
1,2-Dichlorobenzene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
1,3-Dichlorobenzene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
1,4-Dichlorobenzene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
3,3´-Dichlorobenzidine	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Diethyl phthalate	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Dimethyl phthalate	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
2,4-Dichlorophenol	ND	100		µg/L	1	6/12/2014 4:07:23 PM	13650
2,4-Dimethylphenol	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/12/2014 4:07:23 PM	13650
2,4-Dinitrophenol	ND	100		µg/L	1	6/12/2014 4:07:23 PM	13650
2,4-Dinitrotoluene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
2,6-Dinitrotoluene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Fluoranthene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Fluorene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Hexachlorobenzene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Hexachlorobutadiene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Hexachloroethane	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Isophorone	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
1-Methylnaphthalene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
2-Methylnaphthalene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
2-Methylphenol	ND	100		µg/L	1	6/12/2014 4:07:23 PM	13650
3+4-Methylphenol	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650

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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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: SW-075167-061014-CM-East
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 12:35:00 PM
Lab ID: 1406462-004
Matrix: AQUEOUS
Received Date: 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
N-Nitrosodimethylamine	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Naphthalene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
2-Nitroaniline	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
3-Nitroaniline	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
4-Nitroaniline	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Nitrobenzene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
2-Nitrophenol	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
4-Nitrophenol	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Pentachlorophenol	ND	100		µg/L	1	6/12/2014 4:07:23 PM	13650
Phenanthrene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Phenol	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Pyrene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Pyridine	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/12/2014 4:07:23 PM	13650
Surr: 2-Fluorophenol	36.3	12.1-85.8		%REC	1	6/12/2014 4:07:23 PM	13650
Surr: Phenol-d5	42.2	17.7-65.8		%REC	1	6/12/2014 4:07:23 PM	13650
Surr: 2,4,6-Tribromophenol	31.5	26-138		%REC	1	6/12/2014 4:07:23 PM	13650
Surr: Nitrobenzene-d5	72.8	47.5-119		%REC	1	6/12/2014 4:07:23 PM	13650
Surr: 2-Fluorobiphenyl	69.0	48.1-106		%REC	1	6/12/2014 4:07:23 PM	13650
Surr: 4-Terphenyl-d14	73.4	44-113		%REC	1	6/12/2014 4:07:23 PM	13650
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Toluene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Ethylbenzene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Methyl tert-butyl ether (MTBE)	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,2,4-Trimethylbenzene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,3,5-Trimethylbenzene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,2-Dichloroethane (EDC)	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,2-Dibromoethane (EDB)	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Naphthalene	ND	4.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1-Methylnaphthalene	ND	8.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
2-Methylnaphthalene	ND	8.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Acetone	ND	20		µg/L	2	6/17/2014 3:21:00 PM	R19339
Bromobenzene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Bromodichloromethane	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339

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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 greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: SW-075167-061014-CM-East
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 12:35:00 PM
Lab ID: 1406462-004
Matrix: AQUEOUS
Received Date: 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Bromoform	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Bromomethane	ND	6.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
2-Butanone	ND	20		µg/L	2	6/17/2014 3:21:00 PM	R19339
Carbon disulfide	ND	20		µg/L	2	6/17/2014 3:21:00 PM	R19339
Carbon Tetrachloride	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Chlorobenzene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Chloroethane	ND	4.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Chloroform	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Chloromethane	ND	6.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
2-Chlorotoluene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
4-Chlorotoluene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
cis-1,2-DCE	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
cis-1,3-Dichloropropene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,2-Dibromo-3-chloropropane	ND	4.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Dibromochloromethane	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Dibromomethane	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,2-Dichlorobenzene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,3-Dichlorobenzene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,4-Dichlorobenzene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Dichlorodifluoromethane	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,1-Dichloroethane	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,1-Dichloroethene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,2-Dichloropropane	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,3-Dichloropropane	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
2,2-Dichloropropane	ND	4.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,1-Dichloropropene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Hexachlorobutadiene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
2-Hexanone	ND	20		µg/L	2	6/17/2014 3:21:00 PM	R19339
Isopropylbenzene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
4-Isopropyltoluene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
4-Methyl-2-pentanone	ND	20		µg/L	2	6/17/2014 3:21:00 PM	R19339
Methylene Chloride	ND	6.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
n-Butylbenzene	ND	6.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
n-Propylbenzene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
sec-Butylbenzene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Styrene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
tert-Butylbenzene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,1,1,2-Tetrachloroethane	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,1,2,2-Tetrachloroethane	ND	4.0		µg/L	2	6/17/2014 3:21:00 PM	R19339

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Qualifiers:

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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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: SW-075167-061014-CM-East
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 12:35:00 PM
Lab ID: 1406462-004
Matrix: AQUEOUS
Received Date: 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Tetrachloroethene (PCE)	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
trans-1,2-DCE	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
trans-1,3-Dichloropropene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,2,3-Trichlorobenzene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,2,4-Trichlorobenzene	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,1,1-Trichloroethane	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,1,2-Trichloroethane	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Trichloroethene (TCE)	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Trichlorofluoromethane	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
1,2,3-Trichloropropane	ND	4.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Vinyl chloride	ND	2.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Xylenes, Total	ND	3.0		µg/L	2	6/17/2014 3:21:00 PM	R19339
Surr: 1,2-Dichloroethane-d4	99.5	70-130		%REC	2	6/17/2014 3:21:00 PM	R19339
Surr: 4-Bromofluorobenzene	91.3	70-130		%REC	2	6/17/2014 3:21:00 PM	R19339
Surr: Dibromofluoromethane	90.1	70-130		%REC	2	6/17/2014 3:21:00 PM	R19339
Surr: Toluene-d8	94.7	70-130		%REC	2	6/17/2014 3:21:00 PM	R19339
SM4500-H+B: PH						Analyst: **JRR**	
pH	9.50	1.68	*H	pH units	1	6/11/2014 6:03:09 PM	R19213
SM2320B: ALKALINITY						Analyst: **JRR**	
Bicarbonate (As CaCO3)	77	20		mg/L CaCO3	1	6/11/2014 6:03:09 PM	R19213
Carbonate (As CaCO3)	190	2.0		mg/L CaCO3	1	6/11/2014 6:03:09 PM	R19213
Total Alkalinity (as CaCO3)	270	20		mg/L CaCO3	1	6/11/2014 6:03:09 PM	R19213
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	23700	400	*	mg/L	1	6/13/2014 5:37:00 PM	13668

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Qualifiers:

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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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: GW-075167-061014-CM-MW-3
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 1:50:00 PM
Lab ID: 1406462-005 **Matrix:** AQUEOUS **Received Date:** 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	23	2.5		mg/L	5	6/11/2014 11:28:21 PM	R19222
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	6/11/2014 11:28:21 PM	R19222
Sulfate	20	2.5		mg/L	5	6/11/2014 11:28:21 PM	R19222
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**	
Barium	0.14	0.0020		mg/L	1	6/13/2014 3:48:20 PM	R19281
Cadmium	ND	0.0020		mg/L	1	6/13/2014 3:48:20 PM	R19281
Calcium	27	1.0		mg/L	1	6/13/2014 3:48:20 PM	R19281
Chromium	ND	0.0060		mg/L	1	6/13/2014 3:48:20 PM	R19281
Silver	ND	0.0050		mg/L	1	6/13/2014 3:48:20 PM	R19281
Sodium	150	5.0		mg/L	5	6/19/2014 11:47:32 AM	R19380
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**	
Arsenic	ND	0.010		mg/L	10	6/19/2014 4:00:51 PM	R19391
Lead	ND	0.010		mg/L	10	6/19/2014 4:00:51 PM	R19391
Selenium	ND	0.010		mg/L	10	6/19/2014 4:00:51 PM	R19391
Uranium	ND	0.010		mg/L	10	6/19/2014 4:00:51 PM	R19391
EPA METHOD 245.1: MERCURY						Analyst: **MMD**	
Mercury	ND	0.00020		mg/L	1	6/18/2014 11:06:52 AM	13741
SM5210B: BOD						Analyst: **SMS**	
Biochemical Oxygen Demand	3.6	2.0		mg/L	1	6/16/2014 2:19:00 PM	13639
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **SMS**	
E. Coli	<10	10.00		CFU/100ml	10	6/11/2014 6:40:00 PM	13619
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Acenaphthene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Acenaphthylene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Aniline	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Anthracene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Azobenzene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Benz(a)anthracene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Benzo(a)pyrene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Benzo(b)fluoranthene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Benzo(k)fluoranthene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Benzoic acid	ND	20		µg/L	1	6/12/2014 9:30:07 PM	13650
Benzyl alcohol	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650

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
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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: GW-075167-061014-CM-MW-3
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 1:50:00 PM
Lab ID: 1406462-005 **Matrix:** AQUEOUS **Received Date:** 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Butyl benzyl phthalate	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Carbazole	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
4-Chloroaniline	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
2-Chloronaphthalene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
2-Chlorophenol	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Chrysene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Di-n-butyl phthalate	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Di-n-octyl phthalate	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Dibenzofuran	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
1,2-Dichlorobenzene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
1,3-Dichlorobenzene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
1,4-Dichlorobenzene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
3,3´-Dichlorobenzidine	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Diethyl phthalate	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Dimethyl phthalate	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
2,4-Dichlorophenol	ND	20		µg/L	1	6/12/2014 9:30:07 PM	13650
2,4-Dimethylphenol	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/12/2014 9:30:07 PM	13650
2,4-Dinitrophenol	ND	20		µg/L	1	6/12/2014 9:30:07 PM	13650
2,4-Dinitrotoluene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
2,6-Dinitrotoluene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Fluoranthene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Fluorene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Hexachlorobenzene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Hexachlorobutadiene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Hexachloroethane	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Isophorone	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
1-Methylnaphthalene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
2-Methylnaphthalene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
2-Methylphenol	ND	20		µg/L	1	6/12/2014 9:30:07 PM	13650
3+4-Methylphenol	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650

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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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: GW-075167-061014-CM-MW-3
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 1:50:00 PM
Lab ID: 1406462-005 **Matrix:** AQUEOUS **Received Date:** 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
N-Nitrosodimethylamine	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Naphthalene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
2-Nitroaniline	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
3-Nitroaniline	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
4-Nitroaniline	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Nitrobenzene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
2-Nitrophenol	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
4-Nitrophenol	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Pentachlorophenol	ND	20		µg/L	1	6/12/2014 9:30:07 PM	13650
Phenanthrene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Phenol	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Pyrene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Pyridine	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/12/2014 9:30:07 PM	13650
Surr: 2-Fluorophenol	35.7	12.1-85.8		%REC	1	6/12/2014 9:30:07 PM	13650
Surr: Phenol-d5	25.2	17.7-65.8		%REC	1	6/12/2014 9:30:07 PM	13650
Surr: 2,4,6-Tribromophenol	42.5	26-138		%REC	1	6/12/2014 9:30:07 PM	13650
Surr: Nitrobenzene-d5	56.2	47.5-119		%REC	1	6/12/2014 9:30:07 PM	13650
Surr: 2-Fluorobiphenyl	55.4	48.1-106		%REC	1	6/12/2014 9:30:07 PM	13650
Surr: 4-Terphenyl-d14	49.7	44-113		%REC	1	6/12/2014 9:30:07 PM	13650
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Toluene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Ethylbenzene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Methyl tert-butyl ether (MTBE)	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,2,4-Trimethylbenzene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,3,5-Trimethylbenzene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,2-Dichloroethane (EDC)	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,2-Dibromoethane (EDB)	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Naphthalene	ND	4.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1-Methylnaphthalene	ND	8.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
2-Methylnaphthalene	ND	8.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Acetone	ND	20		µg/L	2	6/13/2014 4:08:18 PM	R19278
Bromobenzene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Bromodichloromethane	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278

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Qualifiers:

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: GW-075167-061014-CM-MW-3
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 1:50:00 PM
Lab ID: 1406462-005
Matrix: AQUEOUS
Received Date: 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Bromoform	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Bromomethane	ND	6.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
2-Butanone	ND	20		µg/L	2	6/13/2014 4:08:18 PM	R19278
Carbon disulfide	ND	20		µg/L	2	6/13/2014 4:08:18 PM	R19278
Carbon Tetrachloride	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Chlorobenzene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Chloroethane	ND	4.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Chloroform	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Chloromethane	ND	6.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
2-Chlorotoluene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
4-Chlorotoluene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
cis-1,2-DCE	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
cis-1,3-Dichloropropene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,2-Dibromo-3-chloropropane	ND	4.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Dibromochloromethane	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Dibromomethane	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,2-Dichlorobenzene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,3-Dichlorobenzene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,4-Dichlorobenzene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Dichlorodifluoromethane	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,1-Dichloroethane	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,1-Dichloroethene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,2-Dichloropropane	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,3-Dichloropropane	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
2,2-Dichloropropane	ND	4.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,1-Dichloropropene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Hexachlorobutadiene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
2-Hexanone	ND	20		µg/L	2	6/13/2014 4:08:18 PM	R19278
Isopropylbenzene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
4-Isopropyltoluene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
4-Methyl-2-pentanone	ND	20		µg/L	2	6/13/2014 4:08:18 PM	R19278
Methylene Chloride	ND	6.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
n-Butylbenzene	ND	6.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
n-Propylbenzene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
sec-Butylbenzene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Styrene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
tert-Butylbenzene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,1,1,2-Tetrachloroethane	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,1,2,2-Tetrachloroethane	ND	4.0		µg/L	2	6/13/2014 4:08:18 PM	R19278

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
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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: GW-075167-061014-CM-MW-3
Project: Wingate Fractionator Ponds
Collection Date: 6/10/2014 1:50:00 PM
Lab ID: 1406462-005 **Matrix:** AQUEOUS **Received Date:** 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Tetrachloroethene (PCE)	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
trans-1,2-DCE	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
trans-1,3-Dichloropropene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,2,3-Trichlorobenzene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,2,4-Trichlorobenzene	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,1,1-Trichloroethane	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,1,2-Trichloroethane	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Trichloroethene (TCE)	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Trichlorofluoromethane	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
1,2,3-Trichloropropane	ND	4.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Vinyl chloride	ND	2.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Xylenes, Total	ND	3.0		µg/L	2	6/13/2014 4:08:18 PM	R19278
Surr: 1,2-Dichloroethane-d4	91.3	70-130		%REC	2	6/13/2014 4:08:18 PM	R19278
Surr: 4-Bromofluorobenzene	81.0	70-130		%REC	2	6/13/2014 4:08:18 PM	R19278
Surr: Dibromofluoromethane	82.5	70-130		%REC	2	6/13/2014 4:08:18 PM	R19278
Surr: Toluene-d8	103	70-130		%REC	2	6/13/2014 4:08:18 PM	R19278
SM4500-H+B: PH						Analyst: **JRR**	
pH	7.97	1.68	H	pH units	1	6/11/2014 6:33:30 PM	R19213
SM2320B: ALKALINITY						Analyst: **JRR**	
Bicarbonate (As CaCO3)	420	20		mg/L CaCO3	1	6/11/2014 6:33:30 PM	R19213
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	6/11/2014 6:33:30 PM	R19213
Total Alkalinity (as CaCO3)	420	20		mg/L CaCO3	1	6/11/2014 6:33:30 PM	R19213
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	546	40.0	*	mg/L	1	6/13/2014 5:37:00 PM	13668

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
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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: Trip Blank
Project: Wingate Fractionator Ponds
Collection Date:
Lab ID: 1406462-006
Matrix: TRIP BLANK
Received Date: 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Benzene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Toluene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Ethylbenzene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Naphthalene	ND	2.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1-Methylnaphthalene	ND	4.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
2-Methylnaphthalene	ND	4.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Acetone	ND	10		µg/L	1	6/13/2014 4:37:56 PM	R19278
Bromobenzene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Bromodichloromethane	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Bromoform	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Bromomethane	ND	3.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
2-Butanone	ND	10		µg/L	1	6/13/2014 4:37:56 PM	R19278
Carbon disulfide	ND	10		µg/L	1	6/13/2014 4:37:56 PM	R19278
Carbon Tetrachloride	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Chlorobenzene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Chloroethane	ND	2.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Chloroform	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Chloromethane	ND	3.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
2-Chlorotoluene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
4-Chlorotoluene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
cis-1,2-DCE	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Dibromochloromethane	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Dibromomethane	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,1-Dichloroethane	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,1-Dichloroethene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,2-Dichloropropane	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,3-Dichloropropane	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
2,2-Dichloropropane	ND	2.0		µg/L	1	6/13/2014 4:37:56 PM	R19278

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
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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CRA
Client Sample ID: Trip Blank
Project: Wingate Fractionator Ponds
Collection Date:
Lab ID: 1406462-006
Matrix: TRIP BLANK
Received Date: 6/10/2014 4:37:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1-Dichloropropene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Hexachlorobutadiene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
2-Hexanone	ND	10		µg/L	1	6/13/2014 4:37:56 PM	R19278
Isopropylbenzene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
4-Isopropyltoluene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
4-Methyl-2-pentanone	ND	10		µg/L	1	6/13/2014 4:37:56 PM	R19278
Methylene Chloride	ND	3.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
n-Butylbenzene	ND	3.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
n-Propylbenzene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
sec-Butylbenzene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Styrene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
tert-Butylbenzene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
trans-1,2-DCE	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Trichlorofluoromethane	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Vinyl chloride	ND	1.0		µg/L	1	6/13/2014 4:37:56 PM	R19278
Xylenes, Total	ND	1.5		µg/L	1	6/13/2014 4:37:56 PM	R19278
Surr: 1,2-Dichloroethane-d4	93.3	70-130		%REC	1	6/13/2014 4:37:56 PM	R19278
Surr: 4-Bromofluorobenzene	81.0	70-130		%REC	1	6/13/2014 4:37:56 PM	R19278
Surr: Dibromofluoromethane	89.0	70-130		%REC	1	6/13/2014 4:37:56 PM	R19278
Surr: Toluene-d8	108	70-130		%REC	1	6/13/2014 4:37:56 PM	R19278

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
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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

ESC
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YOUR LAB OF CHOICE

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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

June 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L704564-01

Date Received : June 13, 2014
Description :

Site ID :

Sample ID : 1406462-001H GW-075167-061014-CM-MW-2

Project # :

Collected By :
Collection Date : 06/10/14 09:35

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	52.	10.	mg/l	410.4	06/18/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

.
Reported: 06/18/14 15:42 Printed: 06/18/14 15:43

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REPORT OF ANALYSIS

June 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L704564-02

Date Received : June 13, 2014
Description :

Site ID :

Sample ID : 1406462-002H GW-075167-061014-CM-MWR-1

Project # :

Collected By :
Collection Date : 06/10/14 11:25

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	50.	10.	mg/l	410.4	06/18/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

.
Reported: 06/18/14 15:42 Printed: 06/18/14 15:43

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REPORT OF ANALYSIS

June 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L704564-03

Date Received : June 13, 2014
Description :

Site ID :

Sample ID : 1406462-003H SW-075167-061014-CM WEST

Project # :

Collected By :
Collection Date : 06/10/14 12:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	9100	1000	mg/l	410.4	06/18/14	100

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

.
Reported: 06/18/14 15:42 Printed: 06/18/14 15:43

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REPORT OF ANALYSIS

June 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L704564-04

Date Received : June 13, 2014
Description :

Site ID :

Sample ID : 1406462-004H SW-075167-061014-CM EAST

Project # :

Collected By :
Collection Date : 06/10/14 12:35

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1400	20.	mg/l	410.4	06/18/14	2

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

.
Reported: 06/18/14 15:42 Printed: 06/18/14 15:43

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REPORT OF ANALYSIS

June 18, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L704564-05

Date Received : June 13, 2014
Description :

Site ID :

Sample ID : 1406462-005H GW-075167-061014-CM-MW-3

Project # :

Collected By :
Collection Date : 06/10/14 13:50

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	19.	10.	mg/l	410.4	06/18/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

.
Reported: 06/18/14 15:42 Printed: 06/18/14 15:43

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Hall Environmental Analysis Laboratory

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report
Level II

L704564

June 18, 2014

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l			WG726869	06/18/14 13:53
COD	< 10	mg/l			WG726870	06/18/14 14:00

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	87.0	84.0	3.51	5	L704060-01	WG726869
COD	mg/l	4100	4000	2.47	5	L704131-01	WG726870
COD	mg/l	1400	1400	0.0	5	L704564-04	WG726869
COD	mg/l	26.0	26.0	0.0	5	L704902-01	WG726870

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
COD	mg/l	183	193.	105.	90-110	WG726869
COD	mg/l	183	186.	102.	90-110	WG726870

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
COD	mg/l	192.	193.	105.	90-110	0.519	5	WG726869
COD	mg/l	190.	186.	104.	90-110	2.13	5	WG726870

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	716.	320.	400	99.0	90-110	L704174-01	WG726869
COD	mg/l	431.	19.0	400	100.	90-110	L704564-05	WG726870

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	716.	716.	99.0	90-110	0.0	5	L704174-01	WG726869
COD	mg/l	422.	431.	101.	90-110	2.11	5	L704564-05	WG726870

Batch number /Run number / Sample number cross reference

WG726869: R2943685: L704564-01 02 03
WG726870: R2943686: L704564-05

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R19281**	RunNo: **19281**
Prep Date:	Analysis Date: **6/13/2014**	SeqNo: **557419** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Silver	ND	0.0050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R19281**	RunNo: **19281**
Prep Date:	Analysis Date: **6/13/2014**	SeqNo: **557420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.1	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.8	85	115			
Calcium	48	1.0	50.00	0	95.2	85	115			
Chromium	0.48	0.0060	0.5000	0	95.4	85	115			
Silver	0.096	0.0050	0.1000	0	95.8	85	115			

Sample ID **1406462-001FMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **GW-075167-061014-**	Batch ID: **R19281**	RunNo: **19281**
Prep Date:	Analysis Date: **6/13/2014**	SeqNo: **557460** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.61	0.0020	0.5000	0.1416	93.5	70	130			
Cadmium	0.49	0.0020	0.5000	0	97.2	70	130			
Calcium	55	1.0	50.00	7.494	94.8	70	130			
Chromium	0.48	0.0060	0.5000	0	95.1	70	130			
Silver	0.097	0.0050	0.1000	0	96.9	70	130			

Sample ID **1406462-001FMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **GW-075167-061014-**	Batch ID: **R19281**	RunNo: **19281**
Prep Date:	Analysis Date: **6/13/2014**	SeqNo: **557461** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.61	0.0020	0.5000	0.1416	94.4	70	130	0.730	20	
Cadmium	0.49	0.0020	0.5000	0	97.9	70	130	0.734	20	
Calcium	54	1.0	50.00	7.494	93.8	70	130	0.904	20	
Chromium	0.48	0.0060	0.5000	0	95.2	70	130	0.0988	20	
Silver	0.094	0.0050	0.1000	0	94.2	70	130	2.84	20	

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 greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R19364**	RunNo: **19364**
Prep Date:	Analysis Date: **6/18/2014**	SeqNo: **560092** 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	96.5	85	115			
Lead	0.024	0.0010	0.02500	0	94.8	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R19364**	RunNo: **19364**
Prep Date:	Analysis Date: **6/18/2014**	SeqNo: **560093** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.022	0.0010	0.02500	0	89.7	85	115			
Lead	0.023	0.0010	0.02500	0	93.9	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R19364**	RunNo: **19364**
Prep Date:	Analysis Date: **6/18/2014**	SeqNo: **560094** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R19364**	RunNo: **19364**
Prep Date:	Analysis Date: **6/18/2014**	SeqNo: **560095** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R19391**	RunNo: **19391**
Prep Date:	Analysis Date: **6/19/2014**	SeqNo: **561037** 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	98.7	85	115			
Lead	0.025	0.0010	0.02500	0	99.4	85	115			
Selenium	0.025	0.0010	0.02500	0	98.7	85	115			
Uranium	0.024	0.0010	0.02500	0	96.0	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 greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R19391**	RunNo: **19391**
Prep Date:	Analysis Date: **6/19/2014**	SeqNo: **561038** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

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 greater than 2.
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#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID	**MB-13741**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**				
Client ID:	**PBW**	Batch ID:	**13741**	RunNo:	**19350**				
Prep Date:	**6/17/2014**	Analysis Date:	**6/18/2014**	SeqNo:	**559473**	Units:	**mg/L**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-13741**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**				
Client ID:	**LCSW**	Batch ID:	**13741**	RunNo:	**19350**				
Prep Date:	**6/17/2014**	Analysis Date:	**6/18/2014**	SeqNo:	**559474**	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:

*	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 greater than 2.
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#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R19222**	RunNo: **19222**
Prep Date:	Analysis Date: **6/11/2014**	SeqNo: **555707** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R19222**	RunNo: **19222**
Prep Date:	Analysis Date: **6/11/2014**	SeqNo: **555708** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.4	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	98.2	90	110			
Sulfate	9.5	0.50	10.00	0	95.0	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R19222**	RunNo: **19222**
Prep Date:	Analysis Date: **6/12/2014**	SeqNo: **555761** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R19222**	RunNo: **19222**
Prep Date:	Analysis Date: **6/12/2014**	SeqNo: **555762** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.7	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	98.8	90	110			
Sulfate	9.5	0.50	10.00	0	95.4	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 greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R19278**	RunNo: **19278**
Prep Date:	Analysis Date: **6/13/2014**	SeqNo: **557333** 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:

*	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 greater than 2.
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#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R19278**	RunNo: **19278**
Prep Date:	Analysis Date: **6/13/2014**	SeqNo: **557333** Units: **µg/L**

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	9.5		10.00		94.5	70	130			
Surr: 4-Bromofluorobenzene	8.0		10.00		80.5	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.3	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R19278**	RunNo: **19278**
Prep Date:	Analysis Date: **6/13/2014**	SeqNo: **557355** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130			
Toluene	20	1.0	20.00	0	98.4	80	120			
Chlorobenzene	20	1.0	20.00	0	99.8	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 greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R19278**	RunNo: **19278**
Prep Date:	Analysis Date: **6/13/2014**	SeqNo: **557355** 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	116	82.6	131			
Trichloroethene (TCE)	21	1.0	20.00	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.1	70	130			
Surr: 4-Bromofluorobenzene	8.6		10.00		85.8	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.1	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **1406462-001cms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **GW-075167-061014-**	Batch ID: **R19278**	RunNo: **19278**
Prep Date:	Analysis Date: **6/13/2014**	SeqNo: **557362** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	113	70	130			
Toluene	20	1.0	20.00	0	99.8	67.5	123			
Chlorobenzene	20	1.0	20.00	0	99.3	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	115	81.9	134			
Trichloroethene (TCE)	20	1.0	20.00	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	8.1		10.00		81.1	70	130			
Surr: Dibromofluoromethane	8.9		10.00		89.2	70	130			
Surr: Toluene-d8	11		10.00		105	70	130			

Sample ID **1406462-001cmsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **GW-075167-061014-**	Batch ID: **R19278**	RunNo: **19278**
Prep Date:	Analysis Date: **6/13/2014**	SeqNo: **557363** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	114	70	130	0.694	20	
Toluene	20	1.0	20.00	0	100	67.5	123	0.330	20	
Chlorobenzene	21	1.0	20.00	0	104	70	130	4.63	20	
1,1-Dichloroethene	23	1.0	20.00	0	115	81.9	134	0.565	20	
Trichloroethene (TCE)	20	1.0	20.00	0	101	70	130	0.593	20	
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.2		10.00		82.0	70	130	0	0	
Surr: Dibromofluoromethane	8.7		10.00		87.4	70	130	0	0	
Surr: Toluene-d8	11		10.00		105	70	130	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 greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R19339**	RunNo: **19339**
Prep Date:	Analysis Date: **6/17/2014**	SeqNo: **559023** 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:

*	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 greater than 2.
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#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R19339**	RunNo: **19339**
Prep Date:	Analysis Date: **6/17/2014**	SeqNo: **559023** Units: **µg/L**

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	9.5		10.00		95.0	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.4	70	130			
Surr: Dibromofluoromethane	10		10.00		100	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: **R19339**	RunNo: **19339**
Prep Date:	Analysis Date: **6/17/2014**	SeqNo: **559027** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	70	130			
Toluene	22	1.0	20.00	0	110	80	120			
Chlorobenzene	20	1.0	20.00	0	100	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 greater than 2.
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#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R19339**	RunNo: **19339**
Prep Date:	Analysis Date: **6/17/2014**	SeqNo: **559027** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	25	1.0	20.00	0	124	82.6	131			
Trichloroethene (TCE)	21	1.0	20.00	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.2	70	130			
Surr: Dibromofluoromethane	9.1		10.00		90.6	70	130			
Surr: Toluene-d8	9.6		10.00		96.1	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 greater than 2.
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#: **1406462**
23-Jun-14

Client: CRA
Project: Wingate Fractionator Ponds

Sample ID **mb-13650**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **13650**	RunNo: **19230**
Prep Date: **6/12/2014**	Analysis Date: **6/12/2014**	SeqNo: **556171** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

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 greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID **mb-13650**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **13650**	RunNo: **19230**
Prep Date: **6/12/2014**	Analysis Date: **6/12/2014**	SeqNo: **556171** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	20								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	110		200.0		54.7	12.1	85.8			
Surr: Phenol-d5	100		200.0		50.6	17.7	65.8			
Surr: 2,4,6-Tribromophenol	150		200.0		74.6	26	138			
Surr: Nitrobenzene-d5	99		100.0		98.6	47.5	119			
Surr: 2-Fluorobiphenyl	95		100.0		94.9	48.1	106			
Surr: 4-Terphenyl-d14	100		100.0		100	44	113			

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 greater than 2.
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#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID **lcs-13650**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **13650**	RunNo: **19230**
Prep Date: **6/12/2014**	Analysis Date: **6/12/2014**	SeqNo: **556174** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	95	10	100.0	0	95.2	50.3	109			
4-Chloro-3-methylphenol	210	10	200.0	0	104	51.2	113			
2-Chlorophenol	160	10	200.0	0	78.4	48.5	104			
1,4-Dichlorobenzene	86	10	100.0	0	85.5	39.5	106			
2,4-Dinitrotoluene	89	10	100.0	0	88.8	45.4	107			
N-Nitrosodi-n-propylamine	96	10	100.0	0	95.5	50.4	119			
4-Nitrophenol	43	10	200.0	0	21.6	15.5	62.2			
Pentachlorophenol	69	20	200.0	0	34.3	23.5	93.5			
Phenol	100	10	200.0	0	52.3	26.8	65.6			
Pyrene	110	10	100.0	0	105	54.4	108			
1,2,4-Trichlorobenzene	85	10	100.0	0	84.7	39.9	106			
Surr: 2-Fluorophenol	80		200.0		40.2	12.1	85.8			
Surr: Phenol-d5	100		200.0		51.2	17.7	65.8			
Surr: 2,4,6-Tribromophenol	110		200.0		55.2	26	138			
Surr: Nitrobenzene-d5	110		100.0		106	47.5	119			
Surr: 2-Fluorobiphenyl	97		100.0		96.8	48.1	106			
Surr: 4-Terphenyl-d14	100		100.0		103	44	113			

Sample ID **1406462-001gms**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **GW-075167-061014-**	Batch ID: **13650**	RunNo: **19230**
Prep Date: **6/12/2014**	Analysis Date: **6/12/2014**	SeqNo: **556233** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	110	10	100.0	0	110	52.5	94.5			S
4-Chloro-3-methylphenol	240	10	200.0	0	121	45	103			ES
2-Chlorophenol	210	10	200.0	0	105	32.3	101			S
1,4-Dichlorobenzene	88	10	100.0	0	87.9	34.5	97.5			
2,4-Dinitrotoluene	110	10	100.0	0	110	20.1	123			
N-Nitrosodi-n-propylamine	100	10	100.0	0	101	26.9	131			
4-Nitrophenol	120	10	200.0	0	59.6	11.6	55.4			S
Pentachlorophenol	180	20	200.0	3.080	86.3	17.6	88.9			
Phenol	120	10	200.0	0	61.7	18.4	66.5			
Pyrene	120	10	100.0	0	124	43.1	111			S
1,2,4-Trichlorobenzene	89	10	100.0	0	88.9	38.8	95.6			
Surr: 2-Fluorophenol	140		200.0		69.7	12.1	85.8			
Surr: Phenol-d5	120		200.0		57.9	17.7	65.8			
Surr: 2,4,6-Tribromophenol	200		200.0		102	26	138			
Surr: Nitrobenzene-d5	110		100.0		112	47.5	119			
Surr: 2-Fluorobiphenyl	110		100.0		108	48.1	106			S

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 greater than 2.
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#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID **1406462-001gms** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **GW-075167-061014-** Batch ID: **13650** RunNo: **19230**

Prep Date: **6/12/2014** Analysis Date: **6/12/2014** SeqNo: **556233** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	120		100.0		125	44	113			S

Sample ID **1406462-001gmsd** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **GW-075167-061014-** Batch ID: **13650** RunNo: **19230**

Prep Date: **6/12/2014** Analysis Date: **6/12/2014** SeqNo: **556236** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	100	10	100.0	0	103	52.5	94.5	6.31	20	S
4-Chloro-3-methylphenol	210	10	200.0	0	106	45	103	13.6	20	S
2-Chlorophenol	190	10	200.0	0	94.2	32.3	101	10.6	20	
1,4-Dichlorobenzene	81	10	100.0	0	80.9	34.5	97.5	8.29	20	
2,4-Dinitrotoluene	110	10	100.0	0	110	20.1	123	0.0911	20	
N-Nitrosodi-n-propylamine	96	10	100.0	0	95.7	26.9	131	5.41	20	
4-Nitrophenol	110	10	200.0	0	55.3	11.6	55.4	7.52	20	
Pentachlorophenol	160	20	200.0	3.080	76.1	17.6	88.9	12.3	20	
Phenol	110	10	200.0	0	54.6	18.4	66.5	12.3	20	
Pyrene	120	10	100.0	0	118	43.1	111	5.54	20	S
1,2,4-Trichlorobenzene	77	10	100.0	0	77.4	38.8	95.6	13.8	20	
Surr: 2-Fluorophenol	140		200.0		69.3	12.1	85.8	0	0	
Surr: Phenol-d5	110		200.0		53.4	17.7	65.8	0	0	
Surr: 2,4,6-Tribromophenol	200		200.0		99.5	26	138	0	0	
Surr: Nitrobenzene-d5	100		100.0		105	47.5	119	0	0	
Surr: 2-Fluorobiphenyl	110		100.0		110	48.1	106	0	0	S
Surr: 4-Terphenyl-d14	110		100.0		111	44	113	0	0	

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 greater than 2.
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#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID **MB-13639**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **13639**	RunNo: **19323**							
Prep Date: **6/11/2014**	Analysis Date: **6/16/2014**	SeqNo: **558508**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **MB--13639**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **13639**	RunNo: **19323**							
Prep Date: **6/11/2014**	Analysis Date: **6/16/2014**	SeqNo: **558509**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **LCS-13639**	SampType: **LCS**	TestCode: **SM5210B: BOD**							
Client ID: **LCSW**	Batch ID: **13639**	RunNo: **19323**							
Prep Date: **6/11/2014**	Analysis Date: **6/16/2014**	SeqNo: **558510**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	240	2.0	198.0	0	119	75.8	135			

Sample ID **LCSD-13639**	SampType: **LCSD**	TestCode: **SM5210B: BOD**							
Client ID: **LCSS02**	Batch ID: **13639**	RunNo: **19323**							
Prep Date: **6/11/2014**	Analysis Date: **6/16/2014**	SeqNo: **558511**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	230	2.0	198.0	0	115	75.8	135	3.46	19.6	

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 greater than 2.
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#: **1406462**
23-Jun-14

Client: CRA
Project: Wingate Fractionator Ponds

Sample ID **MB-13619**	SampType: **MBLK**			TestCode: **SM 9223B Fecal Indicator: E. coli MPN**						
Client ID: **PBW**	Batch ID: **13619**			RunNo: **19271**						
Prep Date: **6/10/2014**	Analysis Date: **6/11/2014**			SeqNo: **556988**		Units: **CFU/100ml**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
E. Coli	<1	1.000								

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 greater than 2.
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#: **1406462**
23-Jun-14

Client: CRA
Project: Wingate Fractionator Ponds

Sample ID	**1406462-001d dup**	SampType:	**dup**	TestCode:	**SM4500-H+B: pH**					
Client ID:	**GW-075167-061014-**	Batch ID:	**R19213**	RunNo:	**19213**					
Prep Date:		Analysis Date:	**6/11/2014**	SeqNo:	**555488**	Units:	**pH units**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.39	1.68								H

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 greater than 2.
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#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID	**mb-1**	SampType:	**mblk**	TestCode:	**SM2320B: Alkalinity**					
Client ID:	**PBW**	Batch ID:	**R19213**	RunNo:	**19213**					
Prep Date:		Analysis Date:	**6/11/2014**	SeqNo:	**555451**	Units:	**mg/L CaCO3**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20								

Sample ID	**lcs-1**	SampType:	**lcs**	TestCode:	**SM2320B: Alkalinity**					
Client ID:	**LCSW**	Batch ID:	**R19213**	RunNo:	**19213**					
Prep Date:		Analysis Date:	**6/11/2014**	SeqNo:	**555452**	Units:	**mg/L CaCO3**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78	20	80.00	0	98.0	90	110			

Sample ID	**mb-1**	SampType:	**MBLK**	TestCode:	**SM2320B: Alkalinity**					
Client ID:	**PBW**	Batch ID:	**R19377**	RunNo:	**19377**					
Prep Date:		Analysis Date:	**6/17/2014**	SeqNo:	**560469**	Units:	**mg/L CaCO3**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20								

Sample ID	**lcs-1**	SampType:	**LCS**	TestCode:	**SM2320B: Alkalinity**					
Client ID:	**LCSW**	Batch ID:	**R19377**	RunNo:	**19377**					
Prep Date:		Analysis Date:	**6/17/2014**	SeqNo:	**560470**	Units:	**mg/L CaCO3**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78	20	80.00	0	97.5	90	110			

Sample ID	**mb-2 rr**	SampType:	**MBLK**	TestCode:	**SM2320B: Alkalinity**					
Client ID:	**PBW**	Batch ID:	**R19377**	RunNo:	**19377**					
Prep Date:		Analysis Date:	**6/17/2014**	SeqNo:	**560495**	Units:	**mg/L CaCO3**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20								

Sample ID	**lcs-2 rr**	SampType:	**LCS**	TestCode:	**SM2320B: Alkalinity**					
Client ID:	**LCSW**	Batch ID:	**R19377**	RunNo:	**19377**					
Prep Date:		Analysis Date:	**6/17/2014**	SeqNo:	**560496**	Units:	**mg/L CaCO3**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79	20	80.00	0	99.0	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 greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1406462**

23-Jun-14

Client: CRA

Project: Wingate Fractionator Ponds

Sample ID **MB-13668**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **13668**	RunNo: **19259**
Prep Date: **6/12/2014**	Analysis Date: **6/13/2014**	SeqNo: **556773** 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-13668**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **13668**	RunNo: **19259**
Prep Date: **6/12/2014**	Analysis Date: **6/13/2014**	SeqNo: **556774** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1040	20.0	1000	0	104	80	120			

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 greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: **CONESTOGA-ROVERS** Work Order Number: **1406462** RcptNo: **1**

Received by/date: CS 06/10/14

Logged By: **Celina Sessa** **6/10/2014 4:37:00 PM** Celina Sessa

Completed By: **Celina Sessa** **6/10/2014 4:47:18 PM** Celina Sessa

Reviewed By: CS 06/10/14 @ 16:49

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?	Client		

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 ☐	HNO3 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: 20 (<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: 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:

NA

For dissolved metals analysis: Poured off each sample from the 1L BOD bottle and filtered into a 125ml bottle, then added 0.4ml HNO3 to the bottle for an acceptable pH. For metals analysis: Added 1ml HNO3 to -003E for an acceptable pH. Held in login for 24 hours. - CS 06/11/14.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: **CONESTOGA-ROVERS** Work Order Number: **1406462** RcptNo: **1**

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good	Not Present			

CHAIN OF CUSTODY RECORD

CONESTOGA-ROVERS & ASSOCIATES (CRA)

Address: 6121 Indian School #200 ABQ, NM
Phone: 505-884-0672 Fax:

COC NO.: 32778
PAGE 1 OF 1
(See Reverse Side for Instructions)

Project No/ Phase/Task Code:	075167
Project Name:	Wingate Ponds
Project Location:	Gallup, NM
Chemistry Contact:	Angie Baun.
Sampler(s):	C. Matthews C. Kanack
Laboratory Name:	Hall Environmental
Lab Location:	Albuquerque, NM
Lab Contact:	Andy Freeman
Lab Quote No:	
SSOW ID:	
Cooler No:	
Carrier:	Hand deliver
Airbill No:	
Date Shipped:	6/10/14

SAMPLE TYPE; CONTAINER QUANTITY & PRESERVATION; ANALYSIS REQUESTED (See Back of COC for Definitions)

	Item	SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)	DATE (mm/dd/yy)	TIME (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	VOCs	SVOCs	Metals Dissolved	Mercury	Anions	Alkalinity	BOD	COD	pH & TDS	E. coli Enumeration	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
-001	1	GW-075167-061014-CM-MW-2	6/10/14	0935	WG	G	4	3	1	2				1	11	X	X	X	X	X	X	X	X	X	X		1406462-001
-002	2	GW-075167-061014-CM-MWR-1	6/10/14	1125	WG	G	3	3	1	2				1	10	X	X	X	X	X	X	X	X	X	X		-002
-003	3	SW-075167-061014-CM-West	6/10/14	1200	WS	G	3	3	1	2				1	10	X	X	X	X	X	X	X	X	X	X		very high sodium, chloride, sulfate, & TDS 10s of thousand to 100s of thousand PPM
-004	4	SW-075167-061014-CM-east	6/10/14	1235	WS	G	3	3	1	2				1	10	X	X	X	X	X	X	X	X	X	X		
-005	5	GW-075167-061014-CM-MW-3	6/10/14	1350	WG	G	3	3	1	2				1	10	X	X	X	X	X	X	X	X	X	X		-005
-006	6	TRIP BLANK			TB	G								2		X											Temp at lab: 1.9°C (on ice)
	7																										
	8	[illegible] 06/11/14																									
	9																										
	10																										
	11																										
	12																										
	13																										
	14																										
	15																										

TAT Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other: Standard

Total Number of Containers: 51

All Samples in Cooler must be on COC

Notes/ Special Requirements: Dissolved Metals = Ba, Cd, Cr, Ag, Ca, Na, As, Pb, Se, U

	RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
1.	[illegible]	CRA	6/10/14	1417	[illegible]	CRA	6/10/14	1417
2.	[illegible] Baun	CRA	6/10/14	1637	[illegible]	Hall	06/10/14	16:37
3.								

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10B (20110804)