



July 21, 2016

Mr. Mark Castro
Senior Remediation Project Manager
Commonwealth Edison
Environmental Services
Two Lincoln Centre, 7th Floor
Oakbrook Terrace, Illinois 60181-4260

**Re: Annual Groundwater Monitoring Report – July 2016
Environmental Land Use Control Implementation
Midwest Generation Waukegan Generating Station**

Dear Mark:

URS Corporation (URS) is pleased to submit to Commonwealth Edison (ComEd) two copies of the annual groundwater monitoring report for the period ending July 2016. This report was prepared in accordance with Section Nine of the Environmental Land Use Control (ELUC) for the Midwest Generation Waukegan Generating Station. The following paragraphs describe the groundwater sampling and analytical results.

Groundwater Sampling

Groundwater sampling was conducted on Tuesday, June 14, 2016. Samples were collected from the five monitoring wells within the ELUC area, MW-10, MW-11, MW-12, MW-14, and MW-15. The locations of these wells are shown on **Figure 1**. URS notes that during the 2011 groundwater monitoring event, monitoring well MW-13 was found to have been destroyed, likely from grading operations within the active rail yard on-site. Monitoring well MW-13 has been abandoned because drilling operations to re-establish the well would have posed safety concerns for personnel involved due to hazards associated with the well's location in the active rail yard. URS also notes that as wells MW-10, MW-11, and MW-14 are upgradient of well MW-13, and as wells MW-12 and MW-15 are crossgradient, it is expected that contaminants of concern (COCs) at the facility will be sufficiently monitored from the existing wells.

Prior to sampling, water levels were measured, and each monitoring well was purged using a low flow peristaltic pump. During purging, water quality parameters (i.e., temperature, pH, conductivity, total dissolved solids [TDS], oxidation reduction potential [ORP], and turbidity) were recorded and allowed to stabilize.

Samples were collected from each well using a low flow peristaltic pump and placed in laboratory-provided non-preservative bottles. The groundwater samples were stored on ice and delivered to STAT Analysis Corporation (STAT) of Chicago, Illinois, a National Environmental Laboratory Accreditation Conference (NELAC) certified laboratory. Upon receipt of the samples, the samples were shaken and then the sub-samples were taken for TDS, which does not require preservative. The samples were allowed to settle in a refrigerator for 24 hours. The samples were then decanted into appropriate laboratory bottles with preservative for arsenic, iron and manganese. Groundwater samples were analyzed for arsenic, iron, and manganese using EPA Method 6020, and TDS using EPA Method 160.1.

URS Corporation
100 South Wacker Drive
Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

MWG13-15_61553

Comp. Ex. 42.5F

It should be noted that sampling and testing for iron, manganese, and TDS was completed this year, four years after the last round in 2012 rather than five years in 2017, in order to line up with other sampling events at the site.

Sampling Results

Water level measurements and elevations for the onsite monitoring wells obtained on June 14, 2016 as well as measurements obtained during previous sampling events (December 17, 2003 through June 23, 2015) are summarized in **Table 1**. The analytical results for the groundwater samples collected on June 14, 2016, as well as the previous sampling events (December 17, 2003 through June 23, 2015) are summarized in **Table 2**. A copy of the laboratory analytical report is provided in **Attachment 1**.

Trend Analysis

A non-parametric trend analysis (Gilbert, 1987) was conducted on historical concentrations of arsenic, iron, manganese, and TDS from the ELUC area. Data were collected semiannually for the period December 17, 2003 through June 14, 2006. From June 6, 2007 through June 25, 2013, annual data were collected from onsite wells for arsenic and TDS, and from June 17, 2014 through June 14, 2016, annual data were collected from onsite wells only for arsenic. Iron and manganese after June 2007, and TDS after June 2013, were sampled every five years (see **Table 2** for specific details). As previously stated, monitoring well MW-13 has not been sampled since the June 22, 2011 event, as the well was destroyed.

The data were evaluated for trends using the Mann-Kendall trend test. The Mann-Kendall Statistic (S) was calculated and compared to the critical statistic. The critical statistic is the value for S when the probability is equal (or slightly less than) the significance level (α) of 5%. These Mann-Kendall trend tests were calculated as one tailed test. Arsenic was tested for a null hypothesis of no trend against the alternative hypothesis of decreasing trend. Iron, manganese, and TDS were tested for a null hypothesis of no trend against the alternative hypothesis of increasing trend. Results are presented in **Table 3** and also discussed below for each parameter.

Arsenic: There were no significant decreasing trends observed in arsenic in the site wells.

Iron: There were no significant increasing trends in iron in the site wells.

Manganese: There were no significant increasing trends in manganese in the site wells.

TDS: There were no significant increasing trends in TDS in the site wells with the exception of MW-10 and MW-14.

Conclusion

In accordance with Section Nine of the ELUC, groundwater monitoring for arsenic will continue annually as there were no significant downward trends in arsenic. However, groundwater monitoring for TDS will change back from every five years to annually since MW-10 and MW-14 exhibit an increasing trend in TDS. The next groundwater monitoring event for arsenic and TDS will be in June 2017. Groundwater monitoring of iron and manganese will continue on the five-year schedule with the next groundwater monitoring event taking place in June 2021.



Mr. Mark Castro
July 21, 2016
Page 3 of 3

References

Gilbert, R.O. 1987. Statistical Methods for Environmental Pollution Monitoring. Van Nostrand Reinhold, NY.

If you have any questions or comments regarding this report, please call me at (312) 577-7409.

Sincerely,
URS Corporation

David Meiri, Ph.D., CGWP
Vice President

Attachments

cc: Maria L. Race, NRG Energy (3 copies)
Fredrick Veenbaas, NRG Energy (1 copy)
File 25366456.00790

Table 1 Water Level Elevations for Midwest Generation ELUC Area

Well Number	Well Riser Elevation ft MSL	December 17, 2003		June 16, 2004		December 9, 2004	
		Depth to Water Below Riser ft	Water Level Elevation ft MSL	Depth to Water Below Riser ft	Water Level Elevation ft MSL	Depth to Water Below Riser ft	Water Level Elevation ft MSL
MW-10	587.94	4.33	583.61	2.58	585.36	3.55	584.39
MW-11	587.03	2.37	584.66	2.17	584.86	2.68	584.35
MW-12	587.25	3.71	583.54	2.60	584.65	2.93	584.32
MW-13	586.26	1.77	584.49	1.12	585.14	1.61	584.65
MW-14	586.69	1.61	585.08	0.50	586.19	1.97	584.72
MW-15	588.03	4.31	583.72	2.60	585.43	5.47	582.56

Well Number	Well Riser Elevation ft MSL	June 16, 2005		December 22, 2005		June 14, 2006	
		Depth to Water Below Riser ft	Water Level Elevation ft MSL	Depth to Water Below Riser ft	Water Level Elevation ft MSL	Depth to Water Below Riser ft	Water Level Elevation ft MSL
MW-10	587.94	3.99	583.95	5.55	582.39	3.77	584.17
MW-11	587.03	3.93	583.10	3.78	583.25	2.97	584.06
MW-12	587.25	3.24	584.01	4.95	582.30	3.33	583.92
MW-13	586.26	2.28	583.98	3.71	582.55	2.18	584.08
MW-14	586.69	2.39	584.30	3.90	582.79	2.08	584.61
MW-15	588.03	5.84	582.19	7.91	580.12	6.78	581.25

Well Number	Well Riser Elevation ft MSL	June 6, 2007		June 19, 2008		June 18, 2009	
		Depth to Water Below Riser ft	Water Level Elevation ft MSL	Depth to Water Below Riser ft	Water Level Elevation ft MSL	Depth to Water Below Riser ft	Water Level Elevation ft MSL
MW-10	587.94	3.38	584.56	3.29	584.65	3.48	584.46
MW-11	587.03	2.55	584.48	2.52	584.51	2.76	584.27
MW-12	587.25	2.92	584.33	3.10	584.15	3.20	584.05
MW-13	586.26	1.82	584.44	1.82	584.44	1.96	584.30
MW-14	586.69	1.53	585.16	1.20	585.49	1.46	585.23
MW-15	588.03	4.98	583.05	4.39	583.64	4.25	583.78

Table 1 Water Level Elevations for Midwest Generation ELUC Area (Cont'd)

Well Number	Well Riser Elevation ft MSL	July 9, 2010		June 22, 2011		July 12, 2012	
		Depth to Water Below Riser ft	Water Level Elevation ft MSL	Depth to Water Below Riser ft	Water Level Elevation ft MSL	Depth to Water Below Riser ft	Water Level Elevation ft MSL
MW-10	587.94	3.79	584.15	3.50	584.44	4.98	582.96
MW-11	587.03	2.89	584.14	2.92	584.11	3.61	583.42
MW-12	587.25	3.27	583.98	3.35	583.90	4.40	582.85
MW-13	586.26	2.32	583.94	NA	NA	NA	NA
MW-14	586.69	2.00	584.69	1.40	585.29	3.38	583.31
MW-15	588.03	5.17	582.86	4.20	583.83	6.74	581.29

Well Number	Well Riser Elevation ft MSL	June 25, 2013		June 17, 2014		June 23, 2015	
		Depth to Water Below Riser ft	Water Level Elevation ft MSL	Depth to Water Below Riser ft	Water Level Elevation ft MSL	Depth to Water Below Riser ft	Water Level Elevation ft MSL
MW-10	587.94	3.59	584.35	3.20	584.74	3.38	584.56
MW-11	587.03	2.53	584.50	2.35	584.68	2.58	584.45
MW-12	587.25	2.98	584.27	3.05	584.20	3.05	584.20
MW-13	586.26	NA	NA	NA	NA	NA	NA
MW-14	586.69	1.79	584.90	1.20	585.49	2.14	584.55
MW-15	588.03	4.64	583.39	3.92	584.11	4.41	583.62

Well Number	Well Riser Elevation ft MSL	June 14, 2016	
		Depth to Water Below Riser ft	Water Level Elevation ft MSL
MW-10	587.94	3.50	584.44
MW-11 ^a	590.35	5.63	584.72
MW-12	587.25	3.17	584.08
MW-13	586.26	NA	NA
MW-14 ^a	590.24	5.19	585.05
MW-15	588.03	4.84	583.19

Notes:

NA: Not available.

^a Monitoring wells MW-11 and MW-14 converted to stickups by property owner between the 2015 and 2016 sampling events. Well riser elevation has been adjusted.

Table 2 Groundwater Analytical Results from Midwest Generation ELUC Area

Sample Name	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	DUP-01	
Sample Location	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-14	
Sample Date	12/17/2003	12/17/2003	12/17/2003	12/17/2003	12/17/2003	12/17/2003	12/17/2003	
Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate	
Area	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	
Chemical	CAS No.							
METALS (mg/L)								
Arsenic	7440382	0.15	0.86	0.003	< 0.002	0.16	0.0022	0.18
Iron	15438310	1.4	2.9	0.296	0.296	0.83	1.3	0.95
Manganese	7439965	0.19	0.35	0.055	0.055	0.14	0.64	0.15
INORGANICS (mg/L)								
Solids, Total Dissolved (TDS)		560	600	0.02	0.02	560	740	360

Sample Name	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	DUP-01	
Sample Location	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-11	
Sample Date	6/16/2004	6/16/2004	6/16/2004	6/16/2004	6/16/2004	6/16/2004	6/16/2004	
Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate	
Area	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	
Chemical	CAS No.							
METALS (mg/L)								
Arsenic	7440382	0.22	0.7	0.0043	0.0021	0.11	0.0018 B	0.88
Iron	15438310	2.7	2.1	2.7	0.09	0.87	2.5	2.2
Manganese	7439965	0.12	0.41	0.17	0.0013 B	0.12	0.51	0.4
INORGANICS (mg/L)								
Solids, Total Dissolved (TDS)		560	1200	1300	220	680	1000	1200

Sample Name	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	DUP-01	
Sample Location	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-12	
Sample Date	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	
Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate	
Area	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	
Chemical	CAS No.							
METALS (mg/L)								
Arsenic	7440382	0.078	1.1	0.001 B	0.001 B	0.2	0.0024	0.0012 B
Iron	15438310	0.22	2.3	5.3	0.25	1.3	2	5.3
Manganese	7439965	0.0028 B	0.35	0.24	0.74	0.13	0.53	0.24
INORGANICS (mg/L)								
Solids, Total Dissolved (TDS)		430	1200	1300	280	600	940	890

Notes:

<: Less than; when appearing in the results column indicates the analyte was not detected at or above the reporting limit.

B: Result is less than the reporting limit, but greater than or equal to the minimum detection limit.

NA: Not available.

Table 2 Groundwater Analytical Results from Midwest Generation ELUC Area (Cont'd)

Sample Name	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	DUP-01	
Sample Location	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-11	
Sample Date	6/16/2005	6/16/2005	6/16/2005	6/16/2005	6/16/2005	6/16/2005	6/16/2005	
Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate	
Area	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	
Chemical	CAS No.							
METALS (mg/L)								
Arsenic	7440382	0.041	0.7	0.044	< 0.004	0.21	< 0.004	0.65
Iron	15438310	0.99	4.6	5.1	0.56	3.1	4.5	4.1
Manganese	7439965	0.0058	0.43	0.19	0.054	0.16	0.73	0.4
INORGANICS (mg/L)								
Solids, Total Dissolved (TDS)		400	1200	860	250	690	920	1200

Sample Name	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	DUP-01	
Sample Location	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-11	
Sample Date	12/22/2005	12/22/2005	12/22/2005	12/22/2005	12/22/2005	12/22/2005	12/22/2005	
Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate	
Area	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	
Chemical	CAS No.							
METALS (mg/L)								
Arsenic	7440382	0.43	1.3	< 0.004	< 0.004	0.19	< 0.004	1.4
Iron	15438310	7.8	3.9	4.3	0.4	1.9	0.97	3.9
Manganese	7439965	0.18	0.24	0.17	0.11	0.15	0.45	0.24
INORGANICS (mg/L)								
Solids, Total Dissolved (TDS)		900	1300	940	260	820	760	1200

Sample Name	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	DUP-01	
Sample Location	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-10	
Sample Date	6/14/2006	6/14/2006	6/14/2006	6/14/2006	6/14/2006	6/14/2006	6/14/2006	
Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate	
Area	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	
Chemical	CAS No.							
METALS (mg/L)								
Arsenic	7440382	0.05	1.2	< 0.004	0.0061	0.055	< 0.004	0.046
Iron	15438310	2.1	4.2	1.4	1.9	2.7	2.5	2
Manganese	7439965	0.037	0.34	0.039	0.23	0.26	0.45	0.039
INORGANICS (mg/L)								
Solids, Total Dissolved (TDS)		540	1400	1100	270	900	1000	570

Notes:

<: Less than; when appearing in the results column indicates the analyte was not detected at or above the reporting limit.

B: Result is less than the reporting limit, but greater than or equal to the minimum detection limit.

NA: Not available.

Table 2 Groundwater Analytical Results from Midwest Generation ELUC Area (Cont'd)

Sample Name	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	DUP-01	
Sample Location	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-11	
Sample Date	6/6/2007	6/6/2007	6/6/2007	6/6/2007	6/6/2007	6/6/2007	6/6/2007	
Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate	
Area	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	
Chemical	CAS No.							
METALS (mg/L)								
Arsenic	7440382	0.058	0.92	< 0.004	< 0.004	0.024	< 0.004	1.2
Iron	15438310	1.2	1.1	1.1	0.27	0.65	1.3	2.3
Manganese	7439965	0.17	0.32	0.047	0.011	0.11	0.66	0.34
INORGANICS (mg/L)								
Solids, Total Dissolved (TDS)		880	1400	1200	59	820	1200	1400

Sample Name	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-DUP061908	
Sample Location	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-15	
Sample Date	6/19/2008	6/19/2008	6/19/2008	6/19/2008	6/19/2008	6/19/2008	6/19/2008	
Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate	
Area	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	
Chemical	CAS No.							
METALS (mg/L)								
Arsenic	7440382	0.13	1.4	< 0.014	0.0041	0.027	< 0.004	< 0.004
INORGANICS (mg/L)								
Solids, Total Dissolved (TDS)		710	1200	1100	200	920	1100	1100

Sample Name	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-DUP01-061809	
Sample Location	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-11	
Sample Date	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	
Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate	
Area	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	
Chemical	CAS No.							
METALS (mg/L)								
Arsenic	7440382	0.34	1.1	0.029	< 0.004	0.049	< 0.004	1.1
INORGANICS (mg/L)								
Solids, Total Dissolved (TDS)		710	1100	1500	220	970	1000	1100

Notes:

<: Less than; when appearing in the results column indicates the analyte was not detected at or above the reporting limit.

B: Result is less than the reporting limit, but greater than or equal to the minimum detection limit.

NA: Not available.

Table 2 Groundwater Analytical Results from Midwest Generation ELUC Area (Cont'd)

Sample Name	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-DUP01-07092010	
Sample Location	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-10	
Sample Date	7/9/2010	7/9/2010	7/9/2010	7/9/2010	7/9/2010	7/9/2010	7/9/2010	
Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate	
Area	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	
Chemical	CAS No.							
METALS (mg/L)								
Arsenic	7440382	0.12	0.63	< 0.004	< 0.004	0.17	0.0041	0.12
INORGANICS (mg/L)								
Solids, Total Dissolved (TDS)		660	1100	580	180	980	920	680

Sample Name	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-DUP01-06222011	
Sample Location	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-15	
Sample Date	6/22/2011	6/22/2011	6/22/2011	6/22/2011	6/22/2011	6/22/2011	6/22/2011	
Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate	
Area	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	
Chemical	CAS No.							
METALS (mg/L)								
Arsenic	7440382	0.39	0.83	0.046	NA	0.057	0.0072	< 0.004
INORGANICS (mg/L)								
Solids, Total Dissolved (TDS)		630	1000	1400	NA	740	830	820

Sample Name	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	DUP-01-07122012	
Sample Location	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-12	
Sample Date	7/12/2012	7/12/2012	7/12/2012		7/12/2012	7/12/2012	7/12/2012	
Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate	
Area	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	
Chemical	CAS No.							
METALS (mg/L)								
Arsenic	7440382	0.37	0.23	< 0.004	NA	0.084	< 0.004	< 0.004
Iron	15438310	3.8	1.5	1.2	NA	1	3.5	1.2
Manganese	7439965	0.22	0.19	0.19	NA	0.073	0.4	0.2
INORGANICS (mg/L)								
Solids, Total Dissolved (TDS)		660	870	1200	NA	650	900	1200

Notes:

<: Less than; when appearing in the results column indicates the analyte was not detected at or above the reporting limit.
 B: Result is less than the reporting limit, but greater than or equal to the minimum detection limit.
 NA: Not available.

Table 2 Groundwater Analytical Results from Midwest Generation ELUC Area (Cont'd)

Sample Name	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	DUP-01-062513
Sample Location	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-15
Sample Date	6/25/2013	6/25/2013	6/25/2013	6/25/2013	6/25/2013	6/25/2013	6/25/2013
Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate
Area	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC
Chemical	CAS No.						
METALS (mg/L)							
Arsenic	7440382	0.028	1.5	0.0081	NA	< 0.004	< 0.004
INORGANICS (mg/L)							
Solids, Total Dissolved (TDS)		860	960	770	NA	540	940
							1000
Sample Name	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	DUP-01-061714
Sample Location	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-15
Sample Date	6/17/2014	6/17/2014	6/17/2014	6/17/2014	6/17/2014	6/17/2014	6/17/2014
Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate
Area	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC
Chemical	CAS No.						
METALS (mg/L)							
Arsenic	7440382	0.73	0.79	0.0054	NA	0.053	0.005
							0.0059
Sample Name	MW-10	MW-11	MW-12	DUPLICATE	MW-13	MW-14	MW-15
Sample Location	MW-10	MW-11	MW-12	MW-12	MW-13	MW-14	MW-15
Sample Date	6/23/2015	6/23/2015	6/23/2015	6/23/2015	6/23/2015	6/23/2015	6/23/2015
Sample Type	Investigation	Investigation	Investigation	Duplicate	Investigation	Investigation	Investigation
Area	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC
Chemical	CAS No.						
METALS (mg/L)							
Arsenic	7440382	0.16	0.52	< 0.004	< 0.004	NA	0.064
							< 0.004
Sample Name	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	DUP-01-061416
Sample Location	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-15
Sample Date	6/14/2016	6/14/2016	6/14/2016	6/14/2016	6/14/2016	6/14/2016	6/14/2016
Sample Type	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation	Duplicate
Area	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC	MWG ELUC
Chemical	CAS No.						
METALS (mg/L)							
Arsenic	7440382	0.072	0.52	< 0.004	NA	0.15	< 0.0081
Iron	15438310	1.5	1.4	1.4	NA	1.5	2
Manganese	7439965	0.21	0.19	0.3	NA	0.11	0.51
INORGANICS (mg/L)							
Solids, Total Dissolved (TDS)		940	890	930	NA	1000	1100
							1100

Notes:

<: Less than; when appearing in the results column indicates the analyte was not detected at or above the reporting limit.

B: Result is less than the reporting limit, but greater than or equal to the minimum detection limit.

NA: Not available.

Table 3 Mann-Kendall Trend Test from Midwest Generation ELUC Area

Arsenic	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15
Mann-Kendall Statistic (S)	12	-29	7	NA	-24	46
Critical Statistic (at $\alpha=0.05$)	-38	-38	-38	NA	-38	-38
Significant decreasing trend?	No	No	No	NA	No	No

Iron	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15
Mann-Kendall Statistic (S)	6	-14	-7	NA	4	2
Critical Statistic (at $\alpha=0.05$)	17	17	17	NA	17	17
Significant increasing trend?	No	No	No	NA	No	No

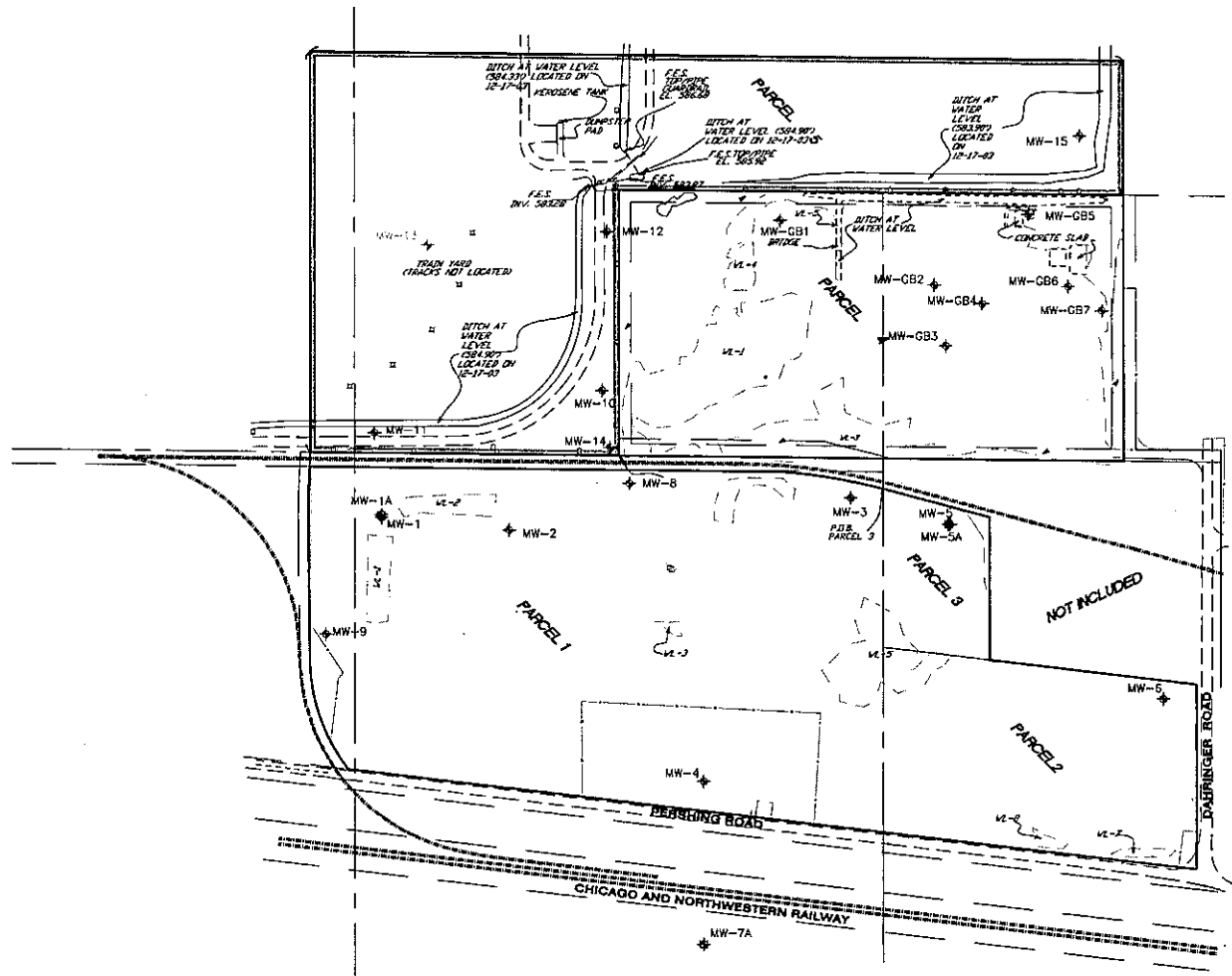
Manganese	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15
Mann-Kendall Statistic (S)	12	-23	6	NA	-9	-11
Critical Statistic (at $\alpha=0.05$)	17	17	17	NA	17	17
Significant increasing trend?	No	No	No	NA	No	No

Total Dissolved Solids	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15
Mann-Kendall Statistic (S)	32	-31	9	NA	34	11
Critical Statistic (at $\alpha=0.05$)	33	33	33	NA	33	33
Significant increasing trend?	Yes	No	No	NA	Yes	No

Notes:

NA: Not available.

PARTIAL, MAY 22, 2005, BY: Northern, Lytle, Citi Used, STELCH, PAGES: 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.



- LEGEND
- SECTION LINE
 - BOUNDARY LINE
 - EASEMENT LINE
 - EXISTING WETLAND LIMITS
 - EXISTING WOOD POST & OAKLE FENCE LINE
 - EXISTING FENCE LINE
 - EXISTING LIGHT POLE
 - EXISTING POWER POLE
 - EXISTING RAILROAD TRACKS
 - ⊕ SHALLOW MONITORING WELL LOCATION
 - ⊕ DEEP MONITORING WELL LOCATION
 - ⊕ DESTROYED SHALLOW MONITORING WELL LOCATION
 - ⊕ ABANDONED SHALLOW MONITORING WELL LOCATION
 - ⊕ ABANDONED DEEP MONITORING WELL LOCATION
 - NEAREST GENERATION ELIC AREA

**COMMONWEALTH EDISON
CHICAGO, ILLINOIS**

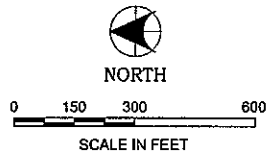
**FIGURE 1
MONITORING WELL LOCATIONS
FORMER GRIESS-PFLEGER TANNERY
SITE WAUKEGAN, ILLINOIS**

DATE: July 17, 2013	
JOB NO.: 25386456.00790	
DRAWN BY: BKR	CHECKED BY: DM
SCALE: AS SHOWN	

URS

100 SOUTH WACKER DRIVE, SUITE 500
CHICAGO, ILLINOIS 60605
PHONE: (312) 929-1000
FAX: (312) 929-1198

MWS-13-15_01004



NOTE: MW-GB3, MW-GB4, MW-GB6, AND MW-GB7 ARE NOT CURRENTLY ACCESSIBLE

SOURCE: METCALF & EDDY, MCCLURE ENGINEERING ASSOC., INC., 12/29/03

Attachment 1
Laboratory Analytical Report

STAT Analysis Corporation

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

June 30, 2016

AECOM

100 S. Wacker, Suite 500

Chicago, IL 60606

Telephone: (312) 939-1000

Fax: (312) 939-4198

Analytical Report for STAT Work Order: 16060509 Revision 1

RE: 25366456, Tannery Waukegan ELUC, 1201 Pershing Rd, Waukegan, IL

Dear David Meiri:

STAT Analysis received 6 samples for the referenced project on 6/14/2016 2:05:00 PM. The analytical results are presented in the following report.

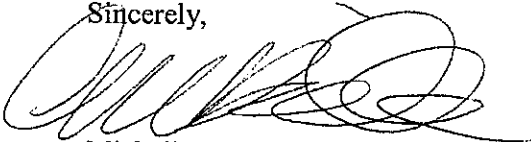
This report is revised to reflect changes made after the last report revision.

All analyses were performed in accordance with the requirements of 35 IAC part 186 / NELAC standards. Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided. A listing of accredited methods/parameters can also be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,



Michelle Budniak

Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory. This analytical report shall become property of the Customer upon payment in full. Otherwise, STAT will be under no obligation to support, defend or discuss the analytical report.

MWG13-15_61566

Client: AECOM
Project: 25366456, Tannery Waukegan ELUC, 1201 Pershing R **Work Order Sample Summary**
Work Order: 16060509 Revision 1

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
16060509-001A	MW-15		6/14/2016 9:10:00 AM	6/14/2016
16060509-001B	MW-15		6/14/2016 9:10:00 AM	6/14/2016
16060509-002A	Dup-01-061416		6/14/2016	6/14/2016
16060509-002B	Dup-01-061416		6/14/2016	6/14/2016
16060509-003A	MW-12		6/14/2016 10:00:00 AM	6/14/2016
16060509-003B	MW-12		6/14/2016 10:00:00 AM	6/14/2016
16060509-004A	MW-10		6/14/2016 10:35:00 AM	6/14/2016
16060509-004B	MW-10		6/14/2016 10:35:00 AM	6/14/2016
16060509-005A	MW-14		6/14/2016 11:35:00 AM	6/14/2016
16060509-005B	MW-14		6/14/2016 11:35:00 AM	6/14/2016
16060509-006A	MW-11		6/14/2016 12:25:00 PM	6/14/2016
16060509-006B	MW-11		6/14/2016 12:25:00 PM	6/14/2016

CLIENT: AECOM

Project: 25366456, Tannery Waukegan ELUC, 1201 Pershing Rd, Wa

Work Order: 16060509 Revision 1

CASE NARRATIVE

At the customers request, Arsenic, Iron and Manganese analysis was conducted on water decanted from the unpreserved sample container after the sample had been allowed to stand for 24 hours.

Due to sample matrix, all samples were analyzed at a 1:2 dilution for metals in water analysis.

STAT Analysis Corporation

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: June 30, 2016

ANALYTICAL RESULTS

Date Printed: June 30, 2016

Client: AECOM

Project: 25366456, Tannery Waukegan ELUC, 1201 Pershing Rd, Waukegan, IL 60087 Work Order: 16060509 Revision 1

Lab ID: 16060509-001

Collection Date 6/14/2016 9:10:00 AM

Client Sample ID: MW-15

Matrix: Aqueous

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS		SW6020 (SW3005A)			Prep Date: 6/20/2016		Analyst: JG
Arsenic	0.0081	0.0040	0.0019		mg/L	2	6/20/2016
Iron	2.0	0.10	0.015		mg/L	2	6/20/2016
Manganese	0.51	0.0040	0.0002		mg/L	2	6/20/2016
Total Dissolved Solids		E160.1			Prep Date: 6/14/2016		Analyst: VA
Total Dissolved Solids	1100	24	3.2	*	mg/L	1	6/15/2016

Lab ID: 16060509-002

Collection Date 6/14/2016

Client Sample ID: Dup-01-061416

Matrix: Aqueous

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS		SW6020 (SW3005A)			Prep Date: 6/20/2016		Analyst: JG
Arsenic	0.0037	0.0040	0.0019	J	mg/L	2	6/20/2016
Iron	1.8	0.10	0.015		mg/L	2	6/20/2016
Manganese	0.50	0.0040	0.0002		mg/L	2	6/20/2016
Total Dissolved Solids		E160.1			Prep Date: 6/14/2016		Analyst: VA
Total Dissolved Solids	1100	24	3.2	*	mg/L	1	6/15/2016

Lab ID: 16060509-003

Collection Date 6/14/2016 10:00:00 AM

Client Sample ID: MW-12

Matrix: Aqueous

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS		SW6020 (SW3005A)			Prep Date: 6/20/2016		Analyst: JG
Arsenic	ND	0.0040	0.0019		mg/L	2	6/20/2016
Iron	1.4	0.10	0.015		mg/L	2	6/20/2016
Manganese	0.30	0.0040	0.0002		mg/L	2	6/20/2016
Total Dissolved Solids		E160.1			Prep Date: 6/14/2016		Analyst: VA
Total Dissolved Solids	930	24	3.2	*	mg/L	1	6/15/2016

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below reporting limit
 B - Analyte detected in the associated Method Blank
 HT - Sample received past holding time
 * - Non-accredited parameter

RL/MDL - Reporting Limit / Method Detection Limit for the analysis
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range
 H - Holding time exceeded

MWG13-15_61569

STAT Analysis Corporation

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP Lab Code 101202-0

Date Reported: June 30, 2016

ANALYTICAL RESULTS

Date Printed: June 30, 2016

Client: AECOM

Project: 25366456, Tannery Waukegan ELUC, 1201 Pershing Rd, Waukeg Work Order: 16060509 Revision 1

Lab ID: 16060509-004

Collection Date 6/14/2016 10:35:00 AM

Client Sample ID: MW-10

Matrix: Aqueous

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS	SW6020 (SW3005A)			Prep Date: 6/20/2016		Analyst: JG	
Arsenic	0.072	0.0040	0.0019		mg/L	2	6/20/2016
Iron	1.5	0.10	0.015		mg/L	2	6/20/2016
Manganese	0.21	0.0040	0.0002		mg/L	2	6/20/2016
Total Dissolved Solids	E160.1			Prep Date: 6/14/2016		Analyst: VA	
Total Dissolved Solids	940	24	3.2	*	mg/L	1	6/15/2016

Lab ID: 16060509-005

Collection Date 6/14/2016 11:35:00 AM

Client Sample ID: MW-14

Matrix: Aqueous

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS	SW6020 (SW3005A)			Prep Date: 6/20/2016		Analyst: JG	
Arsenic	0.15	0.0040	0.0019		mg/L	2	6/20/2016
Iron	1.5	0.10	0.015		mg/L	2	6/20/2016
Manganese	0.11	0.0040	0.0002		mg/L	2	6/20/2016
Total Dissolved Solids	E160.1			Prep Date: 6/14/2016		Analyst: VA	
Total Dissolved Solids	1000	24	3.2	*	mg/L	1	6/15/2016

Lab ID: 16060509-006

Collection Date 6/14/2016 12:25:00 PM

Client Sample ID: MW-11

Matrix: Aqueous

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS	SW6020 (SW3005A)			Prep Date: 6/20/2016		Analyst: JG	
Arsenic	0.52	0.0040	0.0019		mg/L	2	6/20/2016
Iron	1.4	0.10	0.015		mg/L	2	6/20/2016
Manganese	0.19	0.0040	0.0002		mg/L	2	6/20/2016
Total Dissolved Solids	E160.1			Prep Date: 6/14/2016		Analyst: VA	
Total Dissolved Solids	890	24	3.2	*	mg/L	1	6/15/2016

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below reporting limit
 B - Analyte detected in the associated Method Blank
 HT - Sample received past holding time
 * - Non-accredited parameter

RL/MDL - Reporting Limit / Method Detection Limit for the analysis
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range
 H - Holding time exceeded

MWG13-15_61570

STAT Analysis Corporation

2242 W. Harrison Suite 200, Chicago, Illinois 60612 Phone: (312) 733-0551 Fax: (312) 733-2386

e-mail address: STATinfo@STATAnalysis.com AIHA, NVLAP and NELAP accredited

CHAIN OF CUSTODY RECORD

N^o: 864081

Page: of

Company: <u>AECOM</u>							P.O. No.:			
Project Number: <u>25366456</u>				Client Tracking No.:			<div style="border: 1px solid black; padding: 5px; transform: rotate(-45deg); display: inline-block;"> Absence Iron Manganese SPS </div>			
Project Name: <u>Tannery Washburn ELUC</u>									Quote No.:	
Project Location: <u>1201 Pershing rd, Mel West Keegan IL</u>										
Sampler(s): <u>See Zebra</u>										
Report To: <u>AECOM</u> Phone: <u>312-939-1000</u>										
David Meiri: Fax:							Turn Around:			
QC Level: 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>				e-mail:			Results Needed:			
Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab	Preserv.	No. of Containers			
MW-15	6/14/16	0910	W		✓		2	✓	✓	
Deep-01-061416	6/14/16		W		✓		2	✓	✓	
MW-12		1000	W		✓		2	✓	✓	
MW-10		1035	W		✓		2	✓	✓	
MW-14		1135	W		✓		2	✓	✓	
MW-11		1225	W		✓		2	✓	✓	
Relinquished by: (Signature) <u>[Signature]</u>							Date/Time: <u>6/14/16 1430</u>			
Received by: (Signature) <u>[Signature]</u>							Date/Time: <u>6/14/16 1405</u>			
Relinquished by: (Signature)							Date/Time:			
Received by: (Signature)							Date/Time:			
Relinquished by: (Signature)							Date/Time:			
Received by: (Signature)							Date/Time:			
Comments: <u>See special decanting procedure!!!</u>							Laboratory Work Order No.: <u>16069509</u>			
Preservation Code: A = None B = HNO ₃ C = NaOH D = H ₂ SO ₄ E = HCl F = 5035/EnCore G = Other							Received on Ice: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
							Temperature: <u>3.7</u> °C			

Page 6 of 9

STAT Analysis Corporation

Sample Receipt Checklist

Client Name **AECOM (100 S. WACKER)**

Date and Time Received: **6/14/2016 2:05:00 PM**

Work Order Number **16060509**

Received by: **MGK**

Checklist completed by: *Martin Glavin* 6/14/16
Signature Date

Reviewed by: *[Signature]* 06/14/2016
Initials Date

Matrix: Carrier name Client Delivered

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels/containers? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container or Temp Blank temperature in compliance? Yes No Temperature **3.7 °C**
- Water - VOA vials have zero headspace? No VOA vials submitted Yes No
- Water - Samples pH checked? Yes No Checked by: *MGK*
- Water - Samples properly preserved? Yes No pH Adjusted? *No*

Any No response must be detailed in the comments section below.

Comments:

Client / Person contacted: _____ Date contacted: _____ Contacted by: _____

Response: _____

CLIENT: AECOM
 Work Order: 16060509
 Project: 25366456, Tannery Waukegan ELUC, 1201 Pershing Rd, Wauk

ANALYTICAL QC SUMMARY REPORT
Metals
 BatchID: 93023

PREP BATCH SUMMARY

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
IMBW2 6/20/16			50	0	0	50	1.000	6/20/2016	6/20/2016
ILCSW2 6/20/16			50	0	0	50	1.000	6/20/2016	6/20/2016
16060509-001A	Aqueous		50	0	0	50	1.000	6/20/2016	6/20/2016
16060509-002A	Aqueous		50	0	0	50	1.000	6/20/2016	6/20/2016
16060509-003A	Aqueous		50	0	0	50	1.000	6/20/2016	6/20/2016
16060509-004A	Aqueous		50	0	0	50	1.000	6/20/2016	6/20/2016
16060509-005A	Aqueous		50	0	0	50	1.000	6/20/2016	6/20/2016
16060509-006A	Aqueous		50	0	0	50	1.000	6/20/2016	6/20/2016
16060509-006AMS	Aqueous		50	0	0	50	1.000	6/20/2016	6/20/2016
16060509-006AMSD	Aqueous		50	0	0	50	1.000	6/20/2016	6/20/2016

QC SUMMARY

Sample ID:	Customer ID:	SampType:	Units:	TestNo:	Prep Date:	Analysis Date:	Run ID:	SeqNo:			
IMBW2 6/20/16	ZZZZZ	MBLK	mg/L	SW6020	6/20/2016	6/20/2016	ICPMS_160620A	3307440			
Analyte	Result	PQL	SPK value	SPK Ref Val	% REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.00255	0.0040									J
Iron	ND	0.10									
Manganese	0.00029	0.0040									J

Sample ID:	Customer ID:	SampType:	Units:	TestNo:	Prep Date:	Analysis Date:	Run ID:	SeqNo:			
ILCSW2 6/20/16	ZZZZZ	LCS	mg/L	SW6020	6/20/2016	6/20/2016	ICPMS_160620A	3307443			
Analyte	Result	PQL	SPK value	SPK Ref Val	% REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.5103	0.0040	0.5	0.00255	102	80	120	0	0		
Iron	2.086	0.10	2	0	104	80	120	0	0		
Manganese	0.49	0.0040	0.5	0.00029	97.9	80	120	0	0		

Sample ID:	Customer ID:	SampType:	Units:	TestNo:	Prep Date:	Analysis Date:	Run ID:	SeqNo:			
16060509-006AMS	MW-11	MS	mg/L	SW6020	6/20/2016	6/20/2016	ICPMS_160620A	3307563			
Analyte	Result	PQL	SPK value	SPK Ref Val	% REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	1.021	0.0040	0.5	0.5184	101	75	125	0	0		
Iron	3.352	0.10	2	1.423	96.4	75	125	0	0		
Manganese	0.6253	0.0040	0.5	0.1855	88	75	125	0	0		

Sample ID:	Customer ID:	SampType:	Units:	TestNo:	Prep Date:	Analysis Date:	Run ID:	SeqNo:			
16060509-006AMSD	MW-11	MSD	mg/L	SW6020	6/20/2016	6/20/2016	ICPMS_160620A	3307564			
Analyte	Result	PQL	SPK value	SPK Ref Val	% REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	1.036	0.0040	0.5	0.5184	104	75	125	1.021	1.46	20	
Iron	3.39	0.10	2	1.423	98.4	75	125	3.352	1.13	20	
Manganese	0.627	0.0040	0.5	0.1855	88.3	75	125	0.6253	0.272	20	

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits E - Value above quantitation range
 * - Non Accredited Parameter H/HT - Holding Time Exceeded

MWG13-15_61573

CLIENT: AECOM
 Work Order: 16060509
 Project: 25366456, Tannery Waukegan ELUC, 1201 Pershing Rd, Wauk

ANALYTICAL QC SUMMARY REPORT

Wet Chemistry
BatchID: R122062

ANALYTICAL RUN SUMMARY

SeqNo	Sample ID	Type	Test Code	Batch	DF	Date Analyzed
3303909	TDSMBK 6/14/16	MBLK	TDS_W	R122062	1	06/15/2016
3303910	TDSLCS 6/14/16	LCS	TDS_W	R122062	1	06/15/2016
3303911	16060509-001A	SAMP	TDS_W	R122062	1	06/15/2016
3303912	16060509-002A	SAMP	TDS_W	R122062	1	06/15/2016
3303913	16060509-003A	SAMP	TDS_W	R122062	1	06/15/2016
3303914	16060509-004A	SAMP	TDS_W	R122062	1	06/15/2016
3303915	16060509-005A	SAMP	TDS_W	R122062	1	06/15/2016
3303916	16060509-005ADUP	DUP	TDS_W	R122062	1	06/15/2016
3303917	16060509-006A	SAMP	TDS_W	R122062	1	06/15/2016

QC SUMMARY

Sample ID:	Customer ID:	SampType:	Units:	TestNo:	Prep Date:	Analysis Date:	Run ID:	SeqNo:			
TDSMBK 6/14/16	ZZZZZ	MBLK	mg/L	E160.1	6/14/2016	6/15/2016	BALANCE_160614C	3303909			
Analyte	Result	PQL	SPK value	SPK Ref Val	% REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Total Dissolved Solids ND 12 *

Sample ID:	Customer ID:	SampType:	Units:	TestNo:	Prep Date:	Analysis Date:	Run ID:	SeqNo:			
TDSLCS 6/14/16	ZZZZZ	LCS	mg/L	E160.1	6/14/2016	6/15/2016	BALANCE_160614C	3303910			
Analyte	Result	PQL	SPK value	SPK Ref Val	% REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Total Dissolved Solids 979 12 1000 0 97.9 80 120 0 0 *

Sample ID:	Customer ID:	SampType:	Units:	TestNo:	Prep Date:	Analysis Date:	Run ID:	SeqNo:			
16060509-005ADUP	MW-14	DUP	mg/L	E160.1	6/14/2016	6/15/2016	BALANCE_160614C	3303916			
Analyte	Result	PQL	SPK value	SPK Ref Val	% REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Total Dissolved Solids 996 24 0 0 0 0 0 1009 1.30 20 *

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits E - Value above quantitation range
 * - Non Accredited Parameter H/HT - Holding Time Exceeded

MWG13-15_61574