ENTERED

RECEIVED
AUG 05 2015
NMED

Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221

JUL 30 2015

Ms. Michelle Hunter, Acting Bureau Chief
New Mexico Environment Department
Ground Water Quality Bureau
P.O. Box 5469
Santa Fe, NM 87502-5469

Subject: Semiannual Discharge Monitoring Report for January 1, 2015, through June 30, 2015, Discharge Permit 831

Dear Ms. Hunter:

The purpose of this letter is to transmit to you the Waste Isolation Pilot Plant Discharge Monitoring Report, including the required attachments on compact disk, for the period of January 1, 2015, through June 30, 2015. This report is required by Discharge Permit 831.

If you have any questions about this report or require any additional information, please contact me at (575) 234-7488.

Sincerely,

George T. Basabilvazo, Director
Environmental Protection Division

Enclosures 2

cc: w/o enclosures
J. Kieling, NMED *ED
T. Kliphuis, NMED ED
R. Maestas, NMED ED
CBFO M&RC
*ED denotes electronic distribution

150732

CBFO:EPD:GTB:MN:15-2215:UFC 5487.00

WASTE ISOLATION PILOT PLANT
SEMI-ANNUAL DISCHARGE MONITORING REPORT FOR
DISCHARGE PERMIT DP-831
FOR REPORTING PERIOD
JANUARY 1, 2015 THROUGH JUNE 30, 2015

REQUIREMENTS OF DP-831 OPERATIONAL PLAN

Part B. Applicable to the Facultative Lagoon System

Condition 8. – The permittee shall measure the thickness of the sludge blanket in each pond of the Facultative Lagoon System once within the effective term of this Discharge Permit, But before the end of 2018. When sludge accumulation exceeds 1/3 of the total depth of any pond, the permittee shall remove the sludge in a manner, which is protective of the pond liner. Removed solids shall be contained, transported, and disposed of in accordance with all local, state, and federal regulations. The permittee shall maintain solids blanket measurements and solids disposal manifests for solids transported from the facility for off-site disposal. The permittee shall submit all measurements and manifests to NMED in the semi-annual monitoring report immediately following the solids thickness measurement.

No sludge measurements occurred during this reporting period.

Part D. Applicable to the Storm Water Runoff Impoundments in Contact with Salt Stockpiles (Salt Storage Ponds 1, 2, and 3) and Salt Stockpiles (Salt Cells 1, 2, and 3).

Condition 9. – The permittee shall measure the thickness of the solids blanket in each impoundment once within the effective term of this Discharge Permit, but before the end of 2018. Removed solids shall be contained, transported, and disposed of in accordance with all local, state, and federal regulations. The permittee shall maintain solids blanket measurements and solids disposal manifests for solids transported from the facility for off-site disposal. The permittee shall submit all measurements and manifests to NMED in the semi-annual monitoring report immediately following the solids thickness measurement.

No sludge measurements occurred during this reporting period.

Condition 10. – The permittee shall inspect the leak detection systems for Salt Storage Ponds 2 and 3 on a monthly basis for the presence of liquid. The permittee shall keep a log of the inspection findings and repairs made. The inspection log, including a statement whether or not liquids were observed in the leak detection systems, shall be submitted to NMED in the semi-annual monitoring reports.

Inspections of the Salt Storage Pond 2 and 3 leak detection systems occurred during this reporting period for January through June. The sump associated with the leak detection system cannot be fully pumped dry during water removal. The sump is only "blind" accessible via a slanted ten inch diameter, 30 foot long access pipe in Salt Storage Pond 2, and a 70 foot long, slanted pipe in Salt Storage Pond 3. Therefore, the presence of some water will remain in the sump at all times. Trending of water accumulation in the

sump leak detection system is ongoing to establish a removal frequency. There were no significant changes in water level in the sump for January through March. In April, water was pumped from the sump where a six inch drop in water level in the sump occurred. There were no repairs required to the leak detection system during this reporting period. A pdf file of the inspection log can be found on attached CD "Salt Pond Sump Inspection 1st half 2015.pdf." Inspection logs measure distance from the top of the pipe to the water.

Condition 11. – The permittee shall conduct regular maintenance of the earthen cover on the Salt Cell 1, and SPDV material pile. Inspections shall be conducted monthly and after storm events of 2 inches or greater in a 24-hour period to evaluate potential erosion and vegetation success of the cover. In the event of significant erosion or failure of vegetative success, the permittee shall provide a plan and schedule for repair within 90 days of discovery. General observations and cover repair shall be reported to NMED.

The earthen cover of the Salt Cell 1 and the SPDV material pile were inspected monthly for January through June. Both pile's synthetic covering were noted as needing repair. A maintenance work order was written to initiate liner repair activities. Subsequently, a purchase order was issued to a liner repair contractor. Liner repairs are scheduled for August 2015. The WIPP experienced 4.35 inches of precipitation during this reporting period. No storm event resulted greater than 2 inches in 24 hours. These rain events resulted in good vegetative growth on the Salt Cell 1 and SPDV material pile cover.

REQUIREMENTS OF DP-831 MONITORING AND REPORTING SECTION

Part B. Applicable to the Facultative Sewage Lagoon System

Condition 15. – The volume of domestic influent discharged to the Facultative lagoon System shall be measured monthly using a totalizing flow meter on the influent line to the system or the totalizing meter that measures total domestic water usage. Volumes of other authorized discharges to the Facultative Lagoon System shall be calculated by a time/volume method or volumetric measurement of the transport container(s). NMED may require comprehensive laboratory analyses of such wastewater prior to discharge when NMED determines that additional information is needed. Monthly meter readings, the units of measurement, monthly discharge volumes and other volumetric calculations for the previous 6-month period shall be submitted to NMED semi-annually in the monitoring reports.

Facultative Lagoon System

Table 1 shows the volume of water discharged to the Facultative Lagoon System for this reporting period. Discharge water volume is based on total domestic water use. No miscellaneous non-hazardous water was discharged to Evaporation Lagoons B or C.

WASTE ISOLATION PILOT PLANT
SEMI-ANNUAL DISCHARGE MONITORING REPORT FOR
DISCHARGE PERMIT DP-831
FOR REPORTING PERIOD
JANUARY 1, 2015 THROUGH JUNE 30, 2015

Table 1 – Discharge to Facultative Lagoon System

Month	Volume (gallons)
January	297,962
February	299,789
March	301,733
April	425,435
May	312,790
June	345,222
Total	**1,982,931**

Weekly meter readings of the domestic water meter are found on the attached CD as a pdf file named "Domestic Water Usage 1st Half of 2015.pdf."

No water other than non-hazardous sewage water with some non-hazardous condensate from compressors was discharged into the Facultative Lagoon System.

Condition 16. – The permittee shall collect a wastewater sample on a semi-annual basis (once every six months) from the influent to the Facultative Lagoon System. The grab sample shall be analyzed for TKN, NO_3-N, SO_4, TDS, and Cl. Samples shall be properly prepared, preserved, transported and analyzed in accordance with the methods authorized in this Discharge Permit. Analytical results shall be submitted to NMED in the semi-annual monitoring reports.

Table 2 – Facultative Lagoon System Analytical Data

Facultative Lagoon System		
Analyte	**Sample Date**	**Settling Lagoon 2A**
TKN (mg/L)	04/22/15	147
NO_3-N (mg/L)	04/22/15	ND
SO_4 (mg/L)	04/22/15	53.5
TDS (mg/L)	04/22/15	665
Cl (mg/L)	04/22/15	155

TKN: Total Kjeldahl nitrogen
TDS: total dissolved solids
ND: Not detected, analyte below the method detection limit

Laboratory analytical results and QA/QC Summary Report for the Sewage Lagoon System are found as a pdf file on the attached CD named "Sewage Lagoon and H-19 Analytical and QA-QC.pdf."

Part C. Applicable to the Evaporation Pond H-19 and Storm Water Impoundments Not in Contact with Salt Stockpiles (Storm Water Ponds 1, 2, and 3)

Condition 17. – The volume and origin of all wastewater discharged to the Evaporation Pond H-19 that is derived from miscellaneous non-hazardous sources shall be measured monthly and reported to NMED. Discharge volumes to the Evaporation Pond H-19 shall be calculated by a time/volume method or volumetric measurement of the transport container(s). NMED may require comprehensive laboratory analyses of such wastewater prior to discharge when NMED determines that additional information is needed. Monthly discharge volumes and other volumetric calculations for the previous 6-month period shall be submitted to NMED semi-annually in the monitoring reports.

Table 3 shows the volume of miscellaneous non-hazardous water discharged to Evaporation Pond H-19 for this reporting period. This water is from groundwater well pumping, condensate from the Exhaust Shaft ductwork, and removal of Waste Shaft sump water.

Table 3 – Discharge to H-19 Evaporation Pond

Month	Volume (gallons)
January	1,560
February	1,340
March	4,630
April	3,500
May	1,125
June	1874
Total	**14,029**

Condition 18. – A sample shall be collected semi-annually from the Evaporation Pond H-19 and analyzed for SO_4, Cl, and TDS. Samples shall be collected annually after a significant storm event from each of the storm water ponds, Storm Water Ponds 1, 2, and 3 and analyzed for SO_4, Cl, and TDS. Samples shall be properly prepared, preserved, transported and analyzed in accordance with the methods authorized in this Discharge Permit. Analytical results shall be submitted to NMED in the semi-annual monitoring report.

Analytical results, including the laboratory QA/QC summary report, shall be submitted to NMED in the semi-annual monitoring reports.

Table 4 shows results for analytical parameters associated with Evaporation Pond H-19. Storm Water Ponds 1, 2, and 3 were not sampled since no significant rain event occurred during this reporting period. Evaporation Pond H-19 was sampled on April 22, 2015.

Table 4 – Storm Water Ponds and EP H-19 Analytical Data

Analyte	Sample Date	Evaporation Pond H-19	Storm Water Pond 1	Storm Water Pond 2	Storm Water Pond 3
SO_4 (mg/L)	04/22/15 for EPH-19	**1,270**	NS	NS	NS
Cl (mg/L)	04/22/15 for EPH-19	**276,000**	NS	NS	NS
TDS (mg/L)	04/22/15 for EPH-19	**382,000**	NS	NS	NS

Bold: Concentration exceeds the human health standards listed in 20.6.2.3103 NMAC for domestic water supply.
NS: Not Sampled – No significant storm event occurred this reporting period

Laboratory analytical results and QA/QC Summary Report for Evaporative Pond H-19 are found as a pdf file on the attached CD named "Sewage Lagoon and H-19 Analytical and QA-QC.pdf."

Condition 19. – The water depth shall be measured monthly to the nearest tenth of a foot (0.1 ft) in the Storm Water ponds 1, 2, and 3. The approximate volume of storm water shall be calculated and submitted to NMED in the semi-annual monitoring reports.

Table 5 – Storm Water Ponds Depths and Volumes

	January 01/12/15	February 02/15/15	March 03/05/15	April 04/14/15	May 05/06/15	June 06/22/15
Storm Water Pond 1						
Water Depth (ft)	3.6	3.5	3.4	3.0	3.0	3.0
Water Volume (gl)	500,861	486,948	473,035	417,384	417,384	417,384
Storm Water Pond 2						
Water Depth (ft)	5.9	5.9	5.7	5.4	5.7	5.9
Water Volume (gl)	2,027,749	2,027,749	1,959,012	1,855,906	1,959,012	2,027,749
Storm Water Pond 3						
Water Depth (ft)	4.6	4.5	4.3	3.9	4.0	4.2
Water Volume (gl)	6,635,009	6,490,770	6,202,291	5,625,334	5,769,573	6,058,052

Part D. Applicable to the Storm Water Runoff Impoundments in Contact with Salt Stockpiles (Salt Storage Ponds 1, 2, and 3) and Salt Stockpiles (Salt Cells 1, 2, and 3)

Condition 20. – A sample shall be collected annually after a significant storm event from each of the Salt Storage Cells 1, 2, and 3 and analyzed for SO_4, Cl, and TDS. Samples shall be properly prepared, preserved, transported and analyzed in accordance with the methods authorized in this Discharge Permit. Analytical results shall be submitted to NMED in the semi-annual monitoring reports.

Analytical results, including the laboratory QA/QC summary report, shall be submitted to NMED in the semi-annual monitoring reports.

No Significant rainfall event occurred during this reporting period. Therefore, Salt Storage Ponds 1, 2, and 3 were not sampled.

Condition 21. The water depth shall be measured monthly to the nearest tenth of a foot (0.1 ft) in the Salt Storage Ponds 1, 2, and 3. The approximate volume of storm water shall be calculated and submitted to NMED in the semi-annual monitoring reports.

Table 6 – Salt Storage Ponds Depths and Volumes

	January 01/12/15	February 02/15/15	March 03/05/15	April 04/14/15	May 05/06/15	June 06/22/15
Salt Storage Pond 1						
Water Depth (ft)	2.7	2.6	2.5	2.1	1.8	1.2
Water Volume (gl)	3,073,935	2,960,085	2,846,236	2,390,838	2,049,290	1,366,193
Salt Storage Pond 2						
Water Depth (ft)	4.0	4.0	3.9	3.7	3.6	3.6
Water Volume (gl)	1,432,741	1,432,741	1,396,922	1,325,285	1,289,467	1,289,467
Salt Storage Pond 3						
Water Depth (ft)	11.0	11.0	11.0	10.7	10.5	10.4
Water Volume (gl)	12,584,726	12,584,726	12,584,726	12,241,506	12,012,693	11,898,286

Ground Water Monitoring and Reports

Condition 22. – Depth to the water table shall be measured to the nearest hundredth of a foot (0.01 ft) quarterly in the piezometers/monitoring wells:

- *PZ-1. PZ-2, PZ-3, PZ-4, PZ5, PZ-6, PZ-7, PZ-8, PZ-9, PZ-10, PZ-11, PZ-12, PZ-13, PZ-14 and PZ-15*
- *C-2505, C-2506, C-2507, C-2811, and WQSP-6A*

For Depth to the water tables of the piezometer and monitoring wells, see Table 7 – Subsurface Water Well Water Levels and Chemical Analyses.

Condition 23. – The permittee shall perform semi-annual ground water sampling in the following piezometers/monitoring wells and analyze the samples for temperature, pH, specific conductance, SO4, TDS, and Cl:

- *Piezometers: PZ-1, PZ-5, PZ-6, PZ-7, PZ-9, PZ-10, PZ-11, PZ-12, and PZ-13*
- *Monitoring Wells: C-2507, C-2811, and WQSP-6A*

Ground water sample collection, preservation, transport and analysis shall be performed according to the following procedure:

a) Measure the depth-to-most-shallow ground water from the top of the well casing to the nearest hundredth of a foot.
b) Purge three well volumes of water from the well prior to sample collection.
c) Obtain samples from the well for analysis.
d) Properly prepare, preserve and transport samples.
e) Analyze samples in accordance with the methods authorized in this Discharge Permit.

Depth-to-most-shallow ground water measurements, analytical results, including the laboratory QA/QC summary report, and a facility layout map showing the location and number of each well shall be submitted to NMED in the semi-annual monitoring reports.

Water levels in the shallow wells (PZ-1 through PZ-15, C-2811, C-2505, C-2506, and C-2507) were obtained March 2-6, 2015, and June 1-4, 2015, and are included in Table 7 Subsurface Water Well Water Levels and Chemical Analyses. These were taken in accordance with quarterly milestones outlined in the Ground Water Monitoring Schedule, in the July 29, 2014, DP-831 Modification. During the reporting period, the general water level trend for the shallow subsurface water (SSW) monitoring points was an average increase in elevation of 0.11feet. Overall, water level elevation trends indicate that the liners are reducing infiltration enough to see an effect. The slight rise in water elevation over this reporting period is due to higher than average precipitation.

The SSW piezometers were sampled for field and general chemistry parameters in May 2015. Five piezometers were sampled on May 12, 2015, and six piezometers were sampled on May 13, 2015. Results for the field sampling parameters and laboratory analyses are presented in Table 7.

Laboratory analytical results and QA/QC Summary Report are found as a pdf file on the attached CD named "Shallow Surface Water Analytical and QA-QC.pdf".

Condition 24. – The permittee shall perform semi-annual ground water sampling from monitoring well WQSP-6A and analyzed for TKN and NO3. Samples shall be properly prepared, preserved, transported and analyzed in accordance with the methods authorized in this Discharge Permit. Analytical results shall be submitted to NMED in the semi-annual monitoring reports.

Analytical results, including the laboratory QA/QC summary report, shall be submitted to NMED in the semi-annual monitoring reports.

WQSP-6A was sampled on May 14, 2015. Sulfate, chloride, and total dissolved solids were detected in WQSP-6A samples at concentrations above standards of 20.6.2.3103 NMAC, Standards for Ground Water of 1,000 mg/L TDS Concentration or Less for Human Health and Domestic Water Supply. Nitrate was also detected but did not exceed the standards. Total Kjeldahl nitrogen was below the detection limit of 1 mg/L. The shallow subsurface water (SSW) identified at the WIPP site has not impacted the Dewey Lake groundwater in WQSP-6A based on the consistency of analyzed parameters in WQSP-6A.

For WQSP-6A analytical results, see Table 7 – Subsurface Water Well Water Levels and Chemical Analyses.

Laboratory analytical results and QA/QC Summary Report for WQSP-6A samples are found as a pdf file on the attached CD named "Shallow Surface Water Analytical and QA-QC.pdf".

Condition 25. – Hydrographs shall be submitted annually for all monitoring wells and piezometers covered under Condition 22 of this Discharge Permit. At a minimum, graphs shall include the previous five years of water level data, or for recently installed wells, all data since the well was installed. Data for several wells may be included on one graph.

The hydrographs of all monitoring wells and piezometers will be included in the second 2015 semi-annual report which is due in February 1, 2016.

Condition 26. – A potentiometric map for facility area shall be submitted annually. The map shall incorporate the most recent water level data for all monitoring wells and piezometers installed in the shallow subsurface water (SSW).

The potentiometric map that incorporates the most recent water level data for all monitoring wells and piezometers installed in the shallow subsurface water will be included in the second 2015 semi-annual report which is due in February 1, 2016.

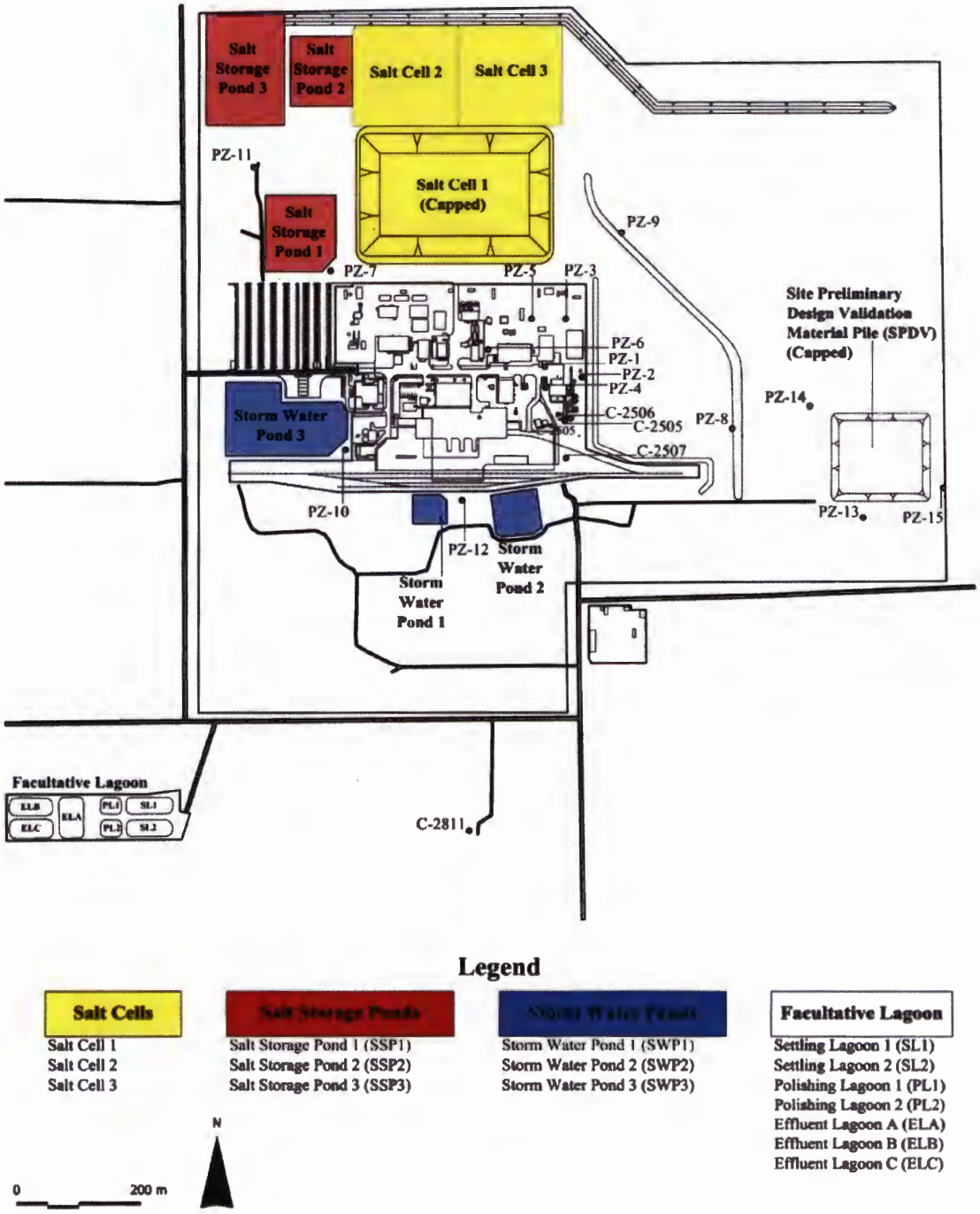
Condition 27. – A single table in a paper and electronic format (EXCEL spreadsheet) of water level measurements and water quality data with only those constituents analyzed and water levels measured during a single event shown in columns. Tabulated field measurements to include temperature, pH, and electrical conductivity corrected to 25 degrees Celsius. Monitoring sites shall be shown in rows. The second column shall contain the date of the sampling event. Values exceeding standards shall be bolded. Any constituent not analyzed for a particular site shall be shown as "NA", any site not sampled shall be shown as "NS" with an associated reason, and any site not measured for water levels shall be shown as "NM" with an associated reason.

Table 7 – Subsurface Water Well Water Levels and Chemical Analyses is attached in paper form to this report and in electronic Excel format on the attached CD. The file name on the CD is "Table 7 Jan-June 2015 WIPP DMR for DP-831."

Condition 28. – A single table that includes all available ground water data to date shall be submitted annually. For each monitoring well, the name of the well shall be entered in the far left column in a row by itself. Sampling events, beginning with the earliest event first, shall be entered in subsequent rows with the sampling date in the second column and the corresponding analytical data in columns further to the right. Each new sampling event shall be added as an additional row to the existing spreadsheet with the corresponding date of the sampling event noted in the second column next to the monitoring well name.

The table that includes all available ground water data to date will be included in the second 2015 semi-annual report which is due in February 1, 2016.

WASTE ISOLATION PILOT PLANT
SEMI-ANNUAL DISCHARGE MONITORING REPORT FOR
DISCHARGE PERMIT DP-831
FOR REPORTING PERIOD
JANUARY 1, 2015 THROUGH JUNE 30, 2015



WASTE ISOLATION PILOT PLANT
SEMI-ANNUAL DISCHARGE MONITORING REPORT FOR DISCHARGE PERMIT DP-831
FOR REPORTING PERIOD
JANUARY 1, 2015 THROUGH JUNE 30, 2015

Table 7 – Subsurface Water Well Water Levels and Chemical Analyses

	Field and General Chemistry Parameters								Other	Water Level Monitoring (Ft AMSL)	
Monitoring Site	Sample Date	pH (SU)	Temp. (°C)	Specific Conductivity @ 25 °C (µS/cm)	Nitrate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	TDS (mg/L)	TKN (mg/L)	3/2/15-3/6/15	6/1/15-6/4/15
PZ-1	5/13/2015	6.38	24.28	95,690	NA	**1,830**	**40,800**	**73,400**	NA	3370.61	3370.29
PZ-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	3369.21	3369.82
PZ-3	NS	NS	NS	NS	NS	NS	NS	NS	NS	3369.85	3370.36
PZ-4	NS	NS	NS	NS	NS	NS	NS	NS	NS	3370.97	3364.43
PZ-5	5/13/2015	7.01	21.95	80,780	NA	**1,100**	**7,380**	**14,800**	NA	3368.15	3370.83
PZ-6	5/13/2015	6.53	22.31	99,650	NA	**2,180**	**49,200**	**77,000**	NA	3374.16	3368.36
PZ-7	5/12/2015	6.24	20.74	97390	NA	**3,240**	**68,200**	**118,000**	NA	3349.39	3374.85
PZ-8	NS	NS	NS	NS	NS	NS	NS	NS	NS	3361.45	3349.38
PZ-9	5/13/2015	6.18	20.41	103,900	NA	**7,090**	**112,000**	**175,000**	NA	3366.12	3361.95
PZ-10	5/12/2015	7.16	20.2	8,814	NA	435	**370**	**1,620**	NA	3371.10	3366.28
PZ-11	5/12/2015	6.37	21.38	95,900	NA	**2,590**	**57,000**	**105,000**	NA	3353.83	3371.56
PZ-12	5/12/2015	6.94	20.82	47,350	NA	**665**	**4,470**	**8,720**	NA	3355.11	3354.41
PZ-13	5/13/2015	Bailed			NA	**3,550**	**197,000**	**267,000**	NA	3355.16	3354.71
PZ-14	NS	NS	NS	NS	NS	NS	NS	NS	NS	3382.70	3352.32
PZ-15	NS	NS	NS	NS	NS	NS	NS	NS	NS	3370.61	3382.37
C-2811	5/12/2015	7.06	20.1	17,770	NA	586	**1,430**	**3,460**	NA	3345.68	3346.63
C-2505	NS	NS	NS	NS	NS	NS	NS	NS	NS	3363.75	NR
C-2506	NS	NS	NS	NS	NS	NS	NS	NS	NS	3367.28	NR
C-2507	5/13/2015	6.96	20.89	42,130	NA	**683**	**3,430**	**7,590**	NA	3363.75	3363.91
WQSP-6A	5/14/2015	6.92	21.92	13,760	5.11	**1,940**	**294**	**3,520**	<1.0	3195.66	3196.07
Explanation:	NA: Not Analyzed, parameter not required, per permit conditions.										
	NS: Not Sampled, not required per permit conditions										
	PZ-13 Field Parameters were not measured since a bailer was used to collect the sample due to difficulty using Low-Flow pumps										
	"Bold" concentrations exceed standards listed in 20.6.2.3103 NMAC for Human Health and Domestic Water Supply										
	NR: Water levels were not recorded for this period, as wells were not accessible										

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

May 27, 2015

Brett Seal
Waste Isolation Pilot Plant
P.O. Box 2078
Carlsbad, NM 88221-2078
TEL:
FAX

RE: SSW Sampling R23 OrderNo.: 1505689

Dear Brett Seal:

Hall Environmental Analysis Laboratory received 16 sample(s) on 5/15/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com 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,

Andy Freeman
Laboratory Manager
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

Workorder Sample Summary

WO#: **1505689**

27-May-15

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1505689-001	SSWC2811R23N1		5/12/2015 8:24:00 AM	5/15/2015 7:15:00 AM	Aqueous
1505689-002	SSWPZ12R23N1		5/12/2015 10:12:00 AM	5/15/2015 7:15:00 AM	Aqueous
1505689-003	SSWPZ10R23N1		5/12/2015 11:27:00 AM	5/15/2015 7:15:00 AM	Aqueous
1505689-004	SSWPZ9R23N1		5/13/2015 8:15:00 AM	5/15/2015 7:15:00 AM	Aqueous
1505689-005	SSWPZ7R23N1		5/12/2015 12:54:00 PM	5/15/2015 7:15:00 AM	Aqueous
1505689-006	SSWPZ13R23N1		5/13/2015 8:43:00 AM	5/15/2015 7:15:00 AM	Aqueous
1505689-007	SSWPZ11R23N1		5/12/2015 2:23:00 PM	5/15/2015 7:15:00 AM	Aqueous
1505689-008	SSWPZ11R23N1EB		5/12/2015 2:39:00 PM	5/15/2015 7:15:00 AM	Aqueous
1505689-009	SSWC2507R23N1		5/13/2015 10:23:00 AM	5/15/2015 7:15:00 AM	Aqueous
1505689-010	SSWPZ1R23N1		5/13/2015 11:43:00 AM	5/15/2015 7:15:00 AM	Aqueous
1505689-011	SSWPZ5R23N1		5/13/2015 3:21:00 PM	5/15/2015 7:15:00 AM	Aqueous
1505689-012	SSWPZ5R23N1D		5/13/2015 3:22:00 PM	5/15/2015 7:15:00 AM	Aqueous
1505689-013	SSWPZ5R23N1EB		5/13/2015 3:37:00 PM	5/15/2015 7:15:00 AM	Aqueous
1505689-014	SSWPZ6R23N1		5/13/2015 12:50:00 PM	5/15/2015 7:15:00 AM	Aqueous
1505689-015	SSWQSP6AR23N1		5/14/2015 8:31:00 AM	5/15/2015 7:15:00 AM	Aqueous
1505689-016	SSWQSP6AR23N2		5/14/2015 8:33:00 AM	5/15/2015 7:15:00 AM	Aqueous

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#: **1505689**
Date: **5/27/2015**

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23

METHOD: 300.0

HOLDING TIMES: All holding times for Preparation and Analysis were met.

METHOD: Preparations: none
Analysis: 300.0

PREPARATION: Sample preparation proceeded normally.

ANALYSIS:
1. Calibration: All acceptance criteria were met.
2. Blanks: All acceptance criteria were met.
3. Duplicates: All acceptance criteria were met.
4. Spikes: All acceptance criteria were met.
5. Samples: All acceptance criteria were met.

METHOD: SM2540C

HOLDING TIMES: All holding times for Preparation and Analysis were met.

METHOD: Preparations: SM2540C
Analysis: SM2540C

PREPARATION: Sample preparation proceeded normally.

ANALYSIS:
1. Blanks: All acceptance criteria were met.
2. Spikes: All acceptance criteria were met.
3. Duplicates: All acceptance criteria were met.
4. Samples: All acceptance criteria were met.

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#: **1505689**
Date: **5/27/2015**

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23

METHOD: SM4500 NorgC

HOLDING TIMES: All holding times for Preparation and Analysis were met.

METHOD: Preparations: SM4500 NorgC
Analysis: SM4500 NorgC

PREPARATION: Sample preparation proceeded normally.

ANALYSIS:
1. Blanks: All acceptance criteria were met.
2. Spikes: All acceptance criteria were met.
3. Duplicates: All acceptance criteria were met.
4. Samples: All acceptance criteria were met.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23
Lab ID: 1505689-001 **Matrix:** AQUEOUS

Client Sample ID: SSWC2811R23N1
Collection Date: 5/12/2015 8:24:00 AM
Received Date: 5/15/2015 7:15:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	1430	26.7	100		mg/L	200	5/18/2015 12:09:57 PM	R26278
Sulfate	586	22.8	100		mg/L	200	5/18/2015 12:09:57 PM	R26278
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **JML**	
Total Dissolved Solids	3460	29.0	40.0	*	mg/L	1	5/20/2015 6:05:00 PM	19295

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23
Lab ID: 1505689-002 **Matrix:** AQUEOUS

Client Sample ID: SSWPZ12R23N1
Collection Date: 5/12/2015 10:12:00 AM
Received Date: 5/15/2015 7:15:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	4470	66.6	250		mg/L	500	5/18/2015 12:34:46 PM	R26278
Sulfate	665	57.0	250		mg/L	500	5/18/2015 12:34:46 PM	R26278
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **JML**	
Total Dissolved Solids	8720	72.4	100	*	mg/L	1	5/20/2015 6:05:00 PM	19295

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23
Lab ID: 1505689-003 **Matrix:** AQUEOUS

Client Sample ID: SSWPZ10R23N1
Collection Date: 5/12/2015 11:27:00 AM
Received Date: 5/15/2015 7:15:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	370	13.3	50.0		mg/L	100	5/18/2015 12:59:36 PM	R26278
Sulfate	435	11.4	50.0		mg/L	100	5/18/2015 12:59:36 PM	R26278
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **JML**	
Total Dissolved Solids	1620	29.0	40.0	*	mg/L	1	5/20/2015 6:05:00 PM	19295

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23
Lab ID: 1505689-004 **Matrix:** AQUEOUS

Client Sample ID: SSWPZ9R23N1
Collection Date: 5/13/2015 8:15:00 AM
Received Date: 5/15/2015 7:15:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	112000	1330	5000		mg/L	1E+0	5/18/2015 2:14:04 PM	R26278
Sulfate	7090	22.8	100		mg/L	200	5/18/2015 2:01:39 PM	R26278
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **JML**	
Total Dissolved Solids	175000	1450	2000	*	mg/L	1	5/20/2015 6:05:00 PM	19295

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23
Lab ID: 1505689-005 **Matrix:** AQUEOUS

Client Sample ID: SSWPZ7R23N1
Collection Date: 5/12/2015 12:54:00 PM
Received Date: 5/15/2015 7:15:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	68200	6660	25000		mg/L	5E+0	5/18/2015 3:03:42 PM	R26278
Sulfate	3240	22.8	100		mg/L	200	5/18/2015 2:51:17 PM	R26278
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **JML**	
Total Dissolved Solids	118000	1450	2000	*	mg/L	1	5/20/2015 6:05:00 PM	19295

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23
Lab ID: 1505689-006 **Matrix:** AQUEOUS

Client Sample ID: SSWPZ13R23N1
Collection Date: 5/13/2015 8:43:00 AM
Received Date: 5/15/2015 7:15:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	197000	1330	5000		mg/L	1E+0	5/18/2015 3:28:31 PM	R26278
Sulfate	3550	11.4	50.0		mg/L	100	5/18/2015 3:16:06 PM	R26278
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **JML**	
Total Dissolved Solids	267000	1450	2000	*	mg/L	1	5/20/2015 6:05:00 PM	19295

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23
Lab ID: 1505689-007 **Matrix:** AQUEOUS

Client Sample ID: SSWPZ11R23N1
Collection Date: 5/12/2015 2:23:00 PM
Received Date: 5/15/2015 7:15:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	57000	1330	5000		mg/L	1E+0	5/18/2015 4:18:10 PM	R26278
Sulfate	2590	11.4	50.0		mg/L	100	5/18/2015 4:05:46 PM	R26278
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **JML**	
Total Dissolved Solids	105000	1450	2000	*	mg/L	1	5/20/2015 6:05:00 PM	19295

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23
Lab ID: 1505689-008 **Matrix:** AQUEOUS

Client Sample ID: SSWPZ11R23N1EB
Collection Date: 5/12/2015 2:39:00 PM
Received Date: 5/15/2015 7:15:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	0.630	0.133	0.500		mg/L	1	5/18/2015 4:30:35 PM	R26278
Sulfate	0.247	0.114	0.500	J	mg/L	1	5/18/2015 4:30:35 PM	R26278
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **JML**	
Total Dissolved Solids	ND	14.5	20.0		mg/L	1	5/20/2015 6:05:00 PM	19295

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23
Lab ID: 1505689-009 **Matrix:** AQUEOUS

Client Sample ID: SSWC2507R23N1
Collection Date: 5/13/2015 10:23:00 AM
Received Date: 5/15/2015 7:15:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	3430	133	500		mg/L	1000	5/18/2015 5:07:49 PM	R26278
Sulfate	683	11.4	50.0		mg/L	100	5/18/2015 4:55:24 PM	R26278
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **JML**	
Total Dissolved Solids	7590	145	200	*	mg/L	1	5/20/2015 6:05:00 PM	19295

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23
Lab ID: 1505689-010 **Matrix:** AQUEOUS

Client Sample ID: SSWPZ1R23N1
Collection Date: 5/13/2015 11:43:00 AM
Received Date: 5/15/2015 7:15:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	40800	666	2500		mg/L	5000	5/18/2015 5:32:37 PM	R26278
Sulfate	1830	11.4	50.0		mg/L	100	5/18/2015 5:20:14 PM	R26278
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **JML**	
Total Dissolved Solids	73400	724	1000	*	mg/L	1	5/20/2015 6:05:00 PM	19295

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23
Lab ID: 1505689-011 **Matrix:** AQUEOUS

Client Sample ID: SSWPZ5R23N1
Collection Date: 5/13/2015 3:21:00 PM
Received Date: 5/15/2015 7:15:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	7380	267	1000		mg/L	2000	5/18/2015 5:57:26 PM	R26278
Sulfate	1100	5.70	25.0		mg/L	50	5/18/2015 5:45:02 PM	R26278
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **KS**	
Total Dissolved Solids	14800	145	200	*	mg/L	1	5/22/2015 8:10:00 AM	19320

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23
Lab ID: 1505689-012 **Matrix:** AQUEOUS

Client Sample ID: SSWPZ5R23N1D
Collection Date: 5/13/2015 3:22:00 PM
Received Date: 5/15/2015 7:15:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	7240	133	500		mg/L	1000	5/18/2015 6:47:04 PM	R26278
Sulfate	999	11.4	50.0		mg/L	100	5/18/2015 6:34:40 PM	R26278
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **KS**	
Total Dissolved Solids	14400	145	200	*	mg/L	1	5/22/2015 8:10:00 AM	19320

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23
Lab ID: 1505689-013 **Matrix:** AQUEOUS

Client Sample ID: SSWPZ5R23N1EB
Collection Date: 5/13/2015 3:37:00 PM
Received Date: 5/15/2015 7:15:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	0.214	0.133	0.500	J	mg/L	1	5/18/2015 6:59:28 PM	R26278
Sulfate	0.156	0.114	0.500	J	mg/L	1	5/18/2015 6:59:28 PM	R26278
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **KS**	
Total Dissolved Solids	ND	14.5	20.0		mg/L	1	5/22/2015 8:10:00 AM	19320

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23
Lab ID: 1505689-014 **Matrix:** AQUEOUS

Client Sample ID: SSWPZ6R23N1
Collection Date: 5/13/2015 12:50:00 PM
Received Date: 5/15/2015 7:15:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	49200	666	2500		mg/L	5000	5/18/2015 7:36:42 PM	R26278
Sulfate	2180	11.4	50.0		mg/L	100	5/18/2015 7:24:18 PM	R26278
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **KS**	
Total Dissolved Solids	77000	724	1000	*	mg/L	1	5/22/2015 8:10:00 AM	19320

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Client Sample ID: SSWQSP6AR23N1
Project: SSW Sampling R23
Collection Date: 5/14/2015 8:31:00 AM
Lab ID: 1505689-015
Matrix: AQUEOUS
Received Date: 5/15/2015 7:15:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	294	6.66	25.0		mg/L	50	5/15/2015 10:59:08 PM	R26253
Nitrogen, Nitrate (As N)	5.58	0.0319	0.100		mg/L	1	5/15/2015 10:46:43 PM	R26253
Sulfate	1940	5.70	25.0		mg/L	50	5/15/2015 10:59:08 PM	R26253
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **KS**	
Total Dissolved Solids	3520	29.0	40.0	*	mg/L	1	5/22/2015 8:10:00 AM	19320

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: SSW Sampling R23
Lab ID: 1505689-016 **Matrix:** AQUEOUS

Client Sample ID: SSWQSP6AR23N2
Collection Date: 5/14/2015 8:33:00 AM
Received Date: 5/15/2015 7:15:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Nitrate+Nitrite as N	5.11	0.224	1.00		mg/L	5	5/16/2015 5:24:03 AM	R26247
SM 4500 NORG C: TKN							Analyst: **JML**	
Nitrogen, Kjeldahl, Total	ND	0.440	1.00		mg/L	1	5/22/2015 10:25:00 AM	19345

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 Not In Range
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

DATES REPORT

WO#: **1505689**

27-May-15

Client: Waste Isolation Pilot Plant

Project: SSW Sampling R23

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1505689-001A	SSWC2811R23N1	5/12/2015 8:24:00 AM	Aqueous	EPA Method 300.0: Anions			5/18/2015 11:32:43 AM
				EPA Method 300.0: Anions			5/18/2015 12:09:57 PM
				SM2540C MOD: Total Dissolved Soli		5/19/2015 9:34:54 AM	5/20/2015 6:05:00 PM
1505689-002A	SSWPZ12R23N1	5/12/2015 10:12:00 AM		EPA Method 300.0: Anions			5/18/2015 12:22:22 PM
				EPA Method 300.0: Anions			5/18/2015 12:34:46 PM
				SM2540C MOD: Total Dissolved Soli		5/19/2015 9:34:54 AM	5/20/2015 6:05:00 PM
1505689-003A	SSWPZ10R23N1	5/12/2015 11:27:00 AM		EPA Method 300.0: Anions			5/18/2015 12:59:36 PM
				EPA Method 300.0: Anions			5/18/2015 12:47:11 PM
				SM2540C MOD: Total Dissolved Soli		5/19/2015 9:34:54 AM	5/20/2015 6:05:00 PM
1505689-004A	SSWPZ9R23N1	5/13/2015 8:15:00 AM		EPA Method 300.0: Anions			5/18/2015 2:01:39 PM
				EPA Method 300.0: Anions			5/18/2015 2:14:04 PM
				SM2540C MOD: Total Dissolved Soli		5/19/2015 9:34:54 AM	5/20/2015 6:05:00 PM
1505689-005A	SSWPZ7R23N1	5/12/2015 12:54:00 PM		EPA Method 300.0: Anions			5/18/2015 3:03:42 PM
				EPA Method 300.0: Anions			5/18/2015 2:51:17 PM
				SM2540C MOD: Total Dissolved Soli		5/19/2015 9:34:54 AM	5/20/2015 6:05:00 PM
1505689-006A	SSWPZ13R23N1	5/13/2015 8:43:00 AM		EPA Method 300.0: Anions			5/18/2015 3:28:31 PM
				EPA Method 300.0: Anions			5/18/2015 3:16:06 PM
				SM2540C MOD: Total Dissolved Soli		5/19/2015 9:34:54 AM	5/20/2015 6:05:00 PM
1505689-007A	SSWPZ11R23N1	5/12/2015 2:23:00 PM		EPA Method 300.0: Anions			5/18/2015 4:05:46 PM
				EPA Method 300.0: Anions			5/18/2015 4:18:10 PM
				SM2540C MOD: Total Dissolved Soli		5/19/2015 9:34:54 AM	5/20/2015 6:05:00 PM
1505689-008A	SSWPZ11R23N1EB	5/12/2015 2:39:00 PM		EPA Method 300.0: Anions			5/18/2015 4:30:35 PM
				EPA Method 300.0: Anions			5/18/2015 4:42:59 PM

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

DATES REPORT

WO#: **1505689**

27-May-15

Client: Waste Isolation Pilot Plant

Project: SSW Sampling R23

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1505689-008A	SSWPZ11R23N1EB	5/12/2015 2:39:00 PM	Aqueous	SM2540C MOD: Total Dissolved Soli		5/19/2015 9:34:54 AM	5/20/2015 6:05:00 PM
1505689-009A	SSWC2507R23N1	5/13/2015 10:23:00 AM		EPA Method 300.0: Anions			5/18/2015 5:07:49 PM
				EPA Method 300.0: Anions			5/18/2015 4:55:24 PM
				SM2540C MOD: Total Dissolved Soli		5/19/2015 9:34:54 AM	5/20/2015 6:05:00 PM
1505689-010A	SSWPZ1R23N1	5/13/2015 11:43:00 AM		EPA Method 300.0: Anions			5/18/2015 5:32:37 PM
				EPA Method 300.0: Anions			5/18/2015 5:20:14 PM
				SM2540C MOD: Total Dissolved Soli		5/19/2015 9:34:54 AM	5/20/2015 6:05:00 PM
1505689-011A	SSWPZ5R23N1	5/13/2015 3:21:00 PM		EPA Method 300.0: Anions			5/18/2015 5:57:26 PM
				EPA Method 300.0: Anions			5/18/2015 5:45:02 PM
				SM2540C MOD: Total Dissolved Soli		5/20/2015 10:33:06 AM	5/22/2015 8:10:00 AM
1505689-012A	SSWPZ5R23N1D	5/13/2015 3:22:00 PM		EPA Method 300.0: Anions			5/18/2015 6:34:40 PM
				EPA Method 300.0: Anions			5/18/2015 6:47:04 PM
				SM2540C MOD: Total Dissolved Soli		5/20/2015 10:33:06 AM	5/22/2015 8:10:00 AM
1505689-013A	SSWPZ5R23N1EB	5/13/2015 3:37:00 PM		EPA Method 300.0: Anions			5/18/2015 6:59:28 PM
				EPA Method 300.0: Anions			5/18/2015 7:11:53 PM
				SM2540C MOD: Total Dissolved Soli		5/20/2015 10:33:06 AM	5/22/2015 8:10:00 AM
1505689-014A	SSWPZ6R23N1	5/13/2015 12:50:00 PM		EPA Method 300.0: Anions			5/18/2015 7:24:18 PM
				EPA Method 300.0: Anions			5/18/2015 7:36:42 PM
				SM2540C MOD: Total Dissolved Soli		5/20/2015 10:33:06 AM	5/22/2015 8:10:00 AM
1505689-015A	SSWQSP6AR23N1	5/14/2015 8:31:00 AM		EPA Method 300.0: Anions			5/15/2015 10:59:08 PM
				EPA Method 300.0: Anions			5/15/2015 10:46:43 PM
				SM2540C MOD: Total Dissolved Soli		5/20/2015 10:33:06 AM	5/22/2015 8:10:00 AM
1505689-016A	SSWQSP6AR23N2	5/14/2015 8:33:00 AM		EPA Method 300.0: Anions			5/16/2015 5:24:03 AM

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

DATES REPORT

WO#: **1505689**

27-May-15

Client: Waste Isolation Pilot Plant

Project: SSW Sampling R23

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1505689-016A	SSWQSP6AR23N2	5/14/2015 8:33:00 AM	Aqueous	SM 4500 Norg C: TKN		5/21/2015 12:54:13 PM	5/22/2015 10:25:00 AM

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1505689**
27-May-15

Client: Waste Isolation Pilot Plant
Project: SSW Sampling R23

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R26247** RunNo: **26247**
Prep Date: Analysis Date: **5/15/2015** SeqNo: **779359** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.200								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R26247** RunNo: **26247**
Prep Date: Analysis Date: **5/15/2015** SeqNo: **779360** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.60	0.200	3.500	0	103	90	110			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R26253** RunNo: **26253**
Prep Date: Analysis Date: **5/15/2015** SeqNo: **779561** 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: **R26253** RunNo: **26253**
Prep Date: Analysis Date: **5/15/2015** SeqNo: **779562** 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	93.9	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.3	90	110			
Sulfate	9.7	0.50	10.00	0	96.9	90	110			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R26278** RunNo: **26278**
Prep Date: Analysis Date: **5/18/2015** SeqNo: **780582** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.500								
Sulfate	ND	0.500								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R26278** RunNo: **26278**
Prep Date: Analysis Date: **5/18/2015** SeqNo: **780583** Units: **mg/L**

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

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1505689**
27-May-15

Client: Waste Isolation Pilot Plant
Project: SSW Sampling R23

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R26278** RunNo: **26278**
Prep Date: Analysis Date: **5/18/2015** SeqNo: **780583** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.79	0.500	5.000	0	95.7	90	110			
Sulfate	9.85	0.500	10.00	0	98.5	90	110			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R26278** RunNo: **26278**
Prep Date: Analysis Date: **5/18/2015** SeqNo: **780642** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R26278** RunNo: **26278**
Prep Date: Analysis Date: **5/18/2015** SeqNo: **780643** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.0	90	110			
Sulfate	9.3	0.50	10.00	0	93.5	90	110			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1505689**
27-May-15

Client: Waste Isolation Pilot Plant
Project: SSW Sampling R23

Sample ID **MB-19295** SampType: **MBLK** TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW** Batch ID: **19295** RunNo: **26318**
Prep Date: **5/19/2015** Analysis Date: **5/20/2015** SeqNo: **782004** 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-19295** SampType: **LCS** TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW** Batch ID: **19295** RunNo: **26318**
Prep Date: **5/19/2015** Analysis Date: **5/20/2015** SeqNo: **782005** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Sample ID **1505689-001AMS** SampType: **MS** TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **SSWC2811R23N1** Batch ID: **19295** RunNo: **26318**
Prep Date: **5/19/2015** Analysis Date: **5/20/2015** SeqNo: **782008** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	5600	40.0	2000	3462	107	80	120			

Sample ID **1505689-001AMSD** SampType: **MSD** TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **SSWC2811R23N1** Batch ID: **19295** RunNo: **26318**
Prep Date: **5/19/2015** Analysis Date: **5/20/2015** SeqNo: **782009** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	5600	40.0	2000	3462	107	80	120	)0000416	5	

Sample ID **MB-19320** SampType: **MBLK** TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW** Batch ID: **19320** RunNo: **26351**
Prep Date: **5/20/2015** Analysis Date: **5/22/2015** SeqNo: **783057** 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-19320** SampType: **LCS** TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW** Batch ID: **19320** RunNo: **26351**
Prep Date: **5/20/2015** Analysis Date: **5/22/2015** SeqNo: **783058** 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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1505689**
27-May-15

Client: Waste Isolation Pilot Plant
Project: SSW Sampling R23

Sample ID	**MB-19345**	SampType:	**MBLK**		TestCode:	**SM 4500 Norg C: TKN**				
Client ID:	**PBW**	Batch ID:	**19345**		RunNo:	**26367**				
Prep Date:	**5/21/2015**	Analysis Date:	**5/22/2015**		SeqNo:	**783616**	Units:	**mg/L**		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total		ND	1.00								

Sample ID	**LCS-19345**	SampType:	**LCS**		TestCode:	**SM 4500 Norg C: TKN**				
Client ID:	**LCSW**	Batch ID:	**19345**		RunNo:	**26367**				
Prep Date:	**5/21/2015**	Analysis Date:	**5/22/2015**		SeqNo:	**783617**	Units:	**mg/L**		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total		10.1	1.00	10.00	0	101	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 Not In Range
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: WIPP Work Order Number: 1505689 RcptNo: 1

Received by/date: LM 05/15/15

Logged By: Anne Thorne 5/15/2015 7:15:00 AM Anne Thorne

Completed By: Anne Thorne 5/15/2015 Anne Thorne

Reviewed By: 05/15/15

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: 6 (<2 or >12 unless noted)
Adjusted? No
Checked by: JA

Special Handling (if applicable)

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

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.4	Good	Yes			

CHAIN OF CUSTODY RECORD

№ 1211

Page 1 of 2

Project Number:	Project Name:
TS02542-2	SSW Sampling R23

Sampler(s): Brett Seal

Analytical Laboratory: HEAL Albuquerque NM

HEAL # 1505689

Sample Date	Sample Time	Matrix	Sample Number	Total Number of Containers	TDS	Chloride	Sulfate							Comments
5/12/15	0824	SSW	SSWC2811 R23N1	1	x	x	x							use for ms/msD -001
5/12/15	1012		SSWPZ12 R23N1	1	x	x	x							-002
5/12/15	1127		SSWPZ10 R23N1	1	x	x	x							-003
5/13/15	0815		SSWPZ9 R23N1	1	x	x	x							-004
5/12/15	1254		SSWPZ7 R23N1	1	x	x	x							-005
5/13/15	0843		SSW PZ13 R23N1	1	x	x	x							-006
5/12/15	1423		SSW PZ11 R23N1	1	x	x	x							-007
5/12/15	1439		SSW PZ11 R23N1 EB	1	x	x	x							Equip Blank -008
5/13/15	1023		SSWC2507 R23N1	1	x	x	x							-009
5/13/15	1143		SSW PZ1 R23N1	1	x	x	x							-010
5/13/15	1521		SSW PZ5 R23N1	1	x	x	x							-011
5/13/15	1522		SSW PZ6 R23N1 D	1	x	x	x							-012
5/13/15	1537		SSW PZ5 R23N1 EB	1	x	x	x							Equip Blank -013
5-13-15	1250		SSW PZ6 R23N1	1	x	x	x							-014

Relinquished By: (Signature, Date/Time)	Received By: (Signature, Date/Time)	Relinquished By: (Signature, Date/Time)	Received By: (Signature, Date/Time)
5/14/15 0940	3.4°C 05/15/15 0715		
Relinquished By: (Signature, Date/Time)	**Received By: (Signature, Date/Time)**	**Relinquished By: (Signature, Date/Time)**	**Received at Laboratory: (Signature, Date/Time)**

Requested Turnaround Time: 30 Days

☒ Routine ☐ Rush _____

Sample Disposal:

☐ Return to Client ☒ Disposal by Lab

Carrier / Airbill No.: 8768 1881 2407

Sample Receipt Remarks:

Results To:

Brett Seal
RES
PO Box 2078, MS 452-09
Carlsbad, NM 88221-2078

Phone: 575-234-8866 FAX: 575-234-6003

EDD: Brett.Seal@wipp.ws

Special Instructions:
High TDS: PZ-7, PZ-11
PZ-9, PZ-6, PZ-5
PZ-13, PZ-1
Report all data to
Three sig figs

WHITE – Analytical Laboratory
DI – Deionized Water
GW – Groundwater
YELLOW – Field Copy
AF – Air Filter(s)
AN – Animal(s)
PINK – Record Copy
SE – Sediment
SO – Soil
SW – Surface Water
VG – Vegetation

CHAIN OF CUSTODY RECORD

№ 1210

Project Number:	Project Name:
TS02542-2	SSW Sampling R23

Sampler(s): Brett Seal

Analytical Laboratory: Heal, Albuquerque, NM

Sample Date	Sample Time	Matrix	Sample Number	Total Number of Containers	TDS	Chloride	Sulfate	Nitrate	TKN					Comments
5/14/15	0831	SSW	SSWWQSP6A R23N1	1	x	x	x	x						HEAL 1505689-015
5/14/15	0833	1	SSWWQSP6A R23N2	1				x	x					-016

NA BS 4/30/15

Relinquished By: (Signature, Date/Time)	Received By: (Signature, Date/Time)	Relinquished By: (Signature, Date/Time)	Received By: (Signature, Date/Time)
5/14/15 0940	3.4°C 05/15/15 0715		
Relinquished By: (Signature, Date/Time)	**Received By: (Signature, Date/Time)**	**Relinquished By: (Signature, Date/Time)**	**Received at Laboratory: (Signature, Date/Time)**

Requested Turnaround Time: 30 Day

☒ Routine ☐ Rush _____

Sample Disposal:

☐ Return to Client ☒ Disposal by Lab

Carrier / Airbill No.: 8768 1881 2407

Sample Receipt Remarks:

Results To:

Brett Seal
RES
PO Box 2078, MS 452-09
Carlsbad, NM 88221-2078

Phone: 575-234-8866 FAX: 575-234-6003

EDD: Brett.Seal@wipp.ws

Special Instructions:

WHITE – Analytical Laboratory
DI – Deionized Water
YELLOW – Field Copy
AF – Air Filter(s)
PINK – Record Copy
SE – Sediment
SW – Surface Water

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

May 07, 2015

Greg Jungclaus
Waste Isolation Pilot Plant
P.O. Box 2078
Carlsbad, NM 88221-2078
TEL: (575) 234-8615
FAX

RE: Env Monit (DP-831, Sewage) OrderNo.: 1504A17

Dear Greg Jungclaus:

Hall Environmental Analysis Laboratory received 8 sample(s) on 4/23/2015 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued April 30, 2015.

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. 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. All samples are reported as received unless otherwise indicated.

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

Sincerely,

Andy Freeman
Laboratory Manager
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#: **1504A17**
Date: **5/7/2015**

CLIENT: Waste Isolation Pilot Plant
Project: Env Monit (DP-831, Sewage)

METHOD: 300.0

HOLDING TIMES: All holding times for Preparation and Analysis were met.

METHOD: Preparations: none
Analysis: 300.0

PREPARATION: Sample preparation proceeded normally.

ANALYSIS:
1. Calibration: All acceptance criteria were met.
2. Blanks: All acceptance criteria were met.
3. Duplicates: All acceptance criteria were met.
4. Spikes: All acceptance criteria were met.
5. Samples: All acceptance criteria were met.

METHOD: SM2540C

HOLDING TIMES: All holding times for Preparation and Analysis were met.

METHOD: Preparations: SM2540C
Analysis: SM2540C

PREPARATION: Sample preparation proceeded normally.

ANALYSIS:
1. Blanks: All acceptance criteria were met.
2. Spikes: All acceptance criteria were met.
3. Duplicates: All acceptance criteria were met.
4. Samples: All acceptance criteria were met.

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#: **1504A17**
Date: **5/7/2015**

CLIENT: Waste Isolation Pilot Plant
Project: Env Monit (DP-831, Sewage)

METHOD: SM4500 NorgC

HOLDING TIMES: All holding times for Preparation and Analysis were met.

METHOD: Preparations: SM4500 NorgC
Analysis: SM4500 NorgC

PREPARATION: Sample preparation proceeded normally.

ANALYSIS:
1. Blanks: All acceptance criteria were met.
2. Spikes: All acceptance criteria were met.
3. Duplicates: All acceptance criteria were met.
4. Samples: All acceptance criteria were met.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: Env Monit (DP-831, Sewage)
Lab ID: 1504A17-001 **Matrix:** AQUEOUS

Client Sample ID: EC-SL2-20150422-1.4
Collection Date: 4/22/2015 10:15:00 AM
Received Date: 4/23/2015 8:50:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Nitrogen, Nitrate (As N)	ND	0.160	0.500		mg/L	5	4/23/2015 5:47:49 PM	R25717

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: Env Monit (DP-831, Sewage)
Lab ID: 1504A17-002 **Matrix:** AQUEOUS

Client Sample ID: EC-SL2-20150422-2.4
Collection Date: 4/22/2015 10:08:00 AM
Received Date: 4/23/2015 8:50:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
SM 4500 NORG C: TKN							Analyst: **JML**	
Nitrogen, Kjeldahl, Total	147	2.20	5.00		mg/L	1	4/27/2015 7:01:00 PM	18907

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: Env Monit (DP-831, Sewage)
Lab ID: 1504A17-003 **Matrix:** AQUEOUS

Client Sample ID: EC-SL2-20150422.3.4
Collection Date: 4/22/2015 10:05:00 AM
Received Date: 4/23/2015 8:50:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	155	1.33	5.00		mg/L	10	4/24/2015 1:39:22 AM	R25717
Sulfate	53.5	1.14	5.00		mg/L	10	4/24/2015 1:39:22 AM	R25717
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **KS**	
Total Dissolved Solids	665	72.4	100	*	mg/L	1	4/29/2015 2:27:00 PM	18928

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: Env Monit (DP-831, Sewage)
Lab ID: 1504A17-004 **Matrix:** AQUEOUS

Client Sample ID: EC-SL2-20150422-4.4
Collection Date: 4/22/2015 10:05:00 AM
Received Date: 4/23/2015 8:50:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	164	1.33	5.00		mg/L	10	4/24/2015 2:29:00 AM	R25717
Sulfate	57.2	1.14	5.00		mg/L	10	4/24/2015 2:29:00 AM	R25717
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **KS**	
Total Dissolved Solids	655	72.4	100	*	mg/L	1	4/29/2015 2:27:00 PM	18928

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: Env Monit (DP-831, Sewage)
Lab ID: 1504A17-005 **Matrix:** AQUEOUS

Client Sample ID: EC-ELB-20150422-1.1
Collection Date: 4/22/2015 9:42:00 AM
Received Date: 4/23/2015 8:50:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	48400	666	2500		mg/L	5000	4/29/2015 1:06:29 AM	R25834
Sulfate	4190	11.4	50.0		mg/L	100	4/24/2015 2:53:49 AM	R25717
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **KS**	
Total Dissolved Solids	77000	1450	2000	*	mg/L	1	4/29/2015 2:27:00 PM	18928

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: Env Monit (DP-831, Sewage)
Lab ID: 1504A17-006 **Matrix:** AQUEOUS

Client Sample ID: EC-ELC-20150422-1.1
Collection Date: 4/22/2015 9:47:00 AM
Received Date: 4/23/2015 8:50:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	26700	267	1000		mg/L	2000	4/29/2015 1:18:54 AM	R25834
Sulfate	1400	11.4	50.0		mg/L	100	4/24/2015 3:31:03 AM	R25717
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **KS**	
Total Dissolved Solids	49200	1450	2000	*	mg/L	1	4/29/2015 2:27:00 PM	18928

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: Env Monit (DP-831, Sewage)
Lab ID: 1504A17-007 **Matrix:** AQUEOUS

Client Sample ID: EC-H19-20150422-1.1
Collection Date: 4/22/2015 9:16:00 AM
Received Date: 4/23/2015 8:50:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	276000	2670	10000		mg/L	2E+0	4/29/2015 1:31:19 AM	R25834
Sulfate	1270	228	1000		mg/L	2000	4/24/2015 3:55:52 AM	R25717
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **KS**	
Total Dissolved Solids	382000	1450	2000	*	mg/L	1	4/29/2015 2:27:00 PM	18928

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Waste Isolation Pilot Plant
Project: Env Monit (DP-831, Sewage)
Lab ID: 1504A17-008 **Matrix:** AQUEOUS

Client Sample ID: EC-BLK-20150422-1.1
Collection Date: 4/22/2015 9:59:00 AM
Received Date: 4/23/2015 8:50:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	ND	0.133	0.500		mg/L	1	4/24/2015 4:08:17 AM	R25717
Sulfate	ND	0.114	0.500		mg/L	1	4/24/2015 4:08:17 AM	R25717
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **KS**	
Total Dissolved Solids	ND	14.5	20.0		mg/L	1	4/29/2015 2:27:00 PM	18928

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1504A17**
07-May-15

Client: Waste Isolation Pilot Plant
Project: Env Monit (DP-831, Sewage)

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R25717** RunNo: **25717**
Prep Date: Analysis Date: **4/23/2015** SeqNo: **762345** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.500								
Nitrogen, Nitrate (As N)	ND	0.100								
Sulfate	ND	0.500								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R25717** RunNo: **25717**
Prep Date: Analysis Date: **4/23/2015** SeqNo: **762346** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.75	0.500	5.000	0	94.9	90	110			
Nitrogen, Nitrate (As N)	2.51	0.100	2.500	0	100	90	110			
Sulfate	9.77	0.500	10.00	0	97.7	90	110			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R25717** RunNo: **25717**
Prep Date: Analysis Date: **4/24/2015** SeqNo: **762399** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.500								
Nitrogen, Nitrate (As N)	ND	0.100								
Sulfate	ND	0.500								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R25717** RunNo: **25717**
Prep Date: Analysis Date: **4/24/2015** SeqNo: **762400** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.74	0.500	5.000	0	94.8	90	110			
Nitrogen, Nitrate (As N)	2.51	0.100	2.500	0	100	90	110			
Sulfate	9.75	0.500	10.00	0	97.5	90	110			

Sample ID **1504A17-008AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**
Client ID: **EC-BLK-20150422-1** Batch ID: **R25717** RunNo: **25717**
Prep Date: Analysis Date: **4/24/2015** SeqNo: **762417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.50	0.500	5.000	0	90.0	81.8	112			
Nitrogen, Nitrate (As N)	2.35	0.100	2.500	0	94.0	84	109			
Sulfate	9.23	0.500	10.00	0	92.3	88.3	114			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1504A17**
07-May-15

Client: Waste Isolation Pilot Plant
Project: Env Monit (DP-831, Sewage)

Sample ID **1504A17-008AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**
Client ID: **EC-BLK-20150422-1** Batch ID: **R25717** RunNo: **25717**
Prep Date: Analysis Date: **4/24/2015** SeqNo: **762418** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.52	0.500	5.000	0	90.4	81.8	112	0.461	20	
Nitrogen, Nitrate (As N)	2.38	0.100	2.500	0	95.2	84	109	1.21	20	
Sulfate	9.30	0.500	10.00	0	93.0	88.3	114	0.789	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R25834** RunNo: **25834**
Prep Date: Analysis Date: **4/28/2015** SeqNo: **765687** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.500								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R25834** RunNo: **25834**
Prep Date: Analysis Date: **4/28/2015** SeqNo: **765688** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.59	0.500	5.000	0	91.9	90	110			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R25834** RunNo: **25834**
Prep Date: Analysis Date: **4/28/2015** SeqNo: **765739** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.500								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R25834** RunNo: **25834**
Prep Date: Analysis Date: **4/28/2015** SeqNo: **765740** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.77	0.500	5.000	0	95.4	90	110			

Sample ID **DOC 1 JRR** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R25834** RunNo: **25834**
Prep Date: Analysis Date: **4/29/2015** SeqNo: **765767** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.5	90	110			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1504A17**
07-May-15

Client: Waste Isolation Pilot Plant
Project: Env Monit (DP-831, Sewage)

Sample ID **DOC 2 JRR** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R25834** RunNo: **25834**
Prep Date: Analysis Date: **4/29/2015** SeqNo: **765768** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.7	90	110			

Sample ID **DOC 3 JRR** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R25834** RunNo: **25834**
Prep Date: Analysis Date: **4/29/2015** SeqNo: **765769** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.4	90	110			

Sample ID **DOC 4 JRR** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R25834** RunNo: **25834**
Prep Date: Analysis Date: **4/29/2015** SeqNo: **765770** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.7	90	110			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1504A17**
07-May-15

Client: Waste Isolation Pilot Plant
Project: Env Monit (DP-831, Sewage)

Sample ID	**MB-18928**	SampType:	**MBLK**		TestCode:	**SM2540C MOD: Total Dissolved Solids**					
Client ID:	**PBW**	Batch ID:	**18928**		RunNo:	**25852**					
Prep Date:	**4/28/2015**	Analysis Date:	**4/29/2015**		SeqNo:	**766051**	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-18928**	SampType:	**LCS**		TestCode:	**SM2540C MOD: Total Dissolved Solids**					
Client ID:	**LCSW**	Batch ID:	**18928**		RunNo:	**25852**					
Prep Date:	**4/28/2015**	Analysis Date:	**4/29/2015**		SeqNo:	**766052**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids		999	20.0	1000	0	99.9	80	120			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1504A17**
07-May-15

Client: Waste Isolation Pilot Plant
Project: Env Monit (DP-831, Sewage)

Sample ID	**MB-18907**	SampType:	**MBLK**		TestCode:	**SM 4500 Norg C: TKN**				
Client ID:	**PBW**	Batch ID:	**18907**		RunNo:	**25821**				
Prep Date:	**4/27/2015**	Analysis Date:	**4/27/2015**		SeqNo:	**765264**	Units:	**mg/L**		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total		ND	1.00								

Sample ID	**LCS-18907**	SampType:	**LCS**		TestCode:	**SM 4500 Norg C: TKN**				
Client ID:	**LCSW**	Batch ID:	**18907**		RunNo:	**25821**				
Prep Date:	**4/27/2015**	Analysis Date:	**4/27/2015**		SeqNo:	**765265**	Units:	**mg/L**		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total		10.1	1.00	10.00	0	101	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 Not In Range
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: WIPP Work Order Number: 1504A17 RcptNo: 1

Received by/date: JA 04/23/14

Logged By: Anne Thorne 4/23/2015 8:50:00 AM

Completed By: Anne Thorne 4/23/2015

Reviewed By:

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: 1 (<2 or >12 unless noted)
Adjusted? No
Checked by: JG

Special Handling (if applicable)

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

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			

CHAIN-OF-CUSTODY RECORD

C of C Control № 9718

WASTE ISOLATION PILOT PLANT
P.O. BOX 2078
CARLSBAD, NM 88221-2078

RFA Control № 9718

SAMPLING PROGRAM Env. Monit. (DP-831, Sewage)

LAB DESTINATION Hall Environmental Lab (HEAL)

SAMPLE TEAM MEMBERS J. Hernandez, M. Quintela

CARRIER/WAYBILL NO. Fed Ex

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
EC-SL2-20150422 --1.4	Settling Lagoon 2	4-22-15 1015	Sewage	1 Liter Plastic	1504A17	-001
2.4		1008		500 mL Plastic		-002
3.4		1005				-003
4.4	(Dupe)	1005				-004
EC-ELB-20150422 --1.1	Effluent Lagoon B	0942				-005
ELC	C	0947				-006
H19	H-19	0916				-007
BLK	Blank	0959	Blank			
			N/A			

Special Instructions: Do Nitrate (1 Liter) within 48 hours of time collected (4-22-15 @ 1015)

Possible Sample Hazards: Biohazard

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Jerome Hernandez NWP 4-22-15 1300
   Received By: [illegible] 04/23/15 0850 1.3
2. Relinquished By:
   Received By:
3. Relinquished By:
   Received By:
4. Relinquished By:
   Received By:

WHITE - Original to accompany samples YELLOW - Field copy PINK - Other

REQUEST FOR ANALYSIS

WASTE ISOLATION PILOT PLANT
P.O. BOX 2078
CARLSBAD, NM 88221-2078

DATE SAMPLES SHIPPED 4-22-15

RFA Control № 9718

LAB DESTINATION Hall Environmental

LABORATORY CONTACT Andy Freeman

SEND LAB REPORT TO NWP
P.O. Box 2078 MS 452-09
Carlsbad NM 88221

C of C Control № 9718

DATE REPORT REQUIRED Per S.O.W.

PROJECT CONTACT c/o Greg Jungclaus

PROJECT CONTACT PHONE NO. (575) 234-8615

SAMPLING PROGRAM Env. Monit.

PURCHASE ORDER NO. 502542-4

HEAL # 504A17

Sample Number	Sample Type	Sample Quantity	Preservative	Req't. Testing Program	Special Instructions
EC-SL2-20150422-1.4	Sewage	1 Liter	≤4°C	Per S.O.W.	Maximum Hold Time 48 hrs.
2.4		500 mL	H_2SO_4 to pH≤2; ≤4C		N/A
3.4			≤4°C		
4.4					
EC-ELB-20150422-1.1					
ELC					
H19					
BLK	Blank				
			N/A		

TURNAROUND TIME REQUIRED: (Rush must be approved by appropriate Manager) NORMAL X RUSH _____ (Subject in rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)

NONHAZARD _____ FLAMMABLE _____ SKIN IRRITANT _____ HIGHLY TOXIC _____ BIOLOGICAL X OTHER _____ (Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis.) RETURN TO CLIENT _____ DISPOSAL BY LAB X

FOR LAB USE ONLY

RECEIVED BY [signature] 04/23/15 0850 DATE/TIME _____

1.3

WHITE - Original to accompany samples YELLOW - Field copy PINK - Other

Attachment 1 – Sewage Lagoon Sample Data Work Sheet

SEWAGE SYSTEM LAGOONS SAMPLE DATA WORK SHEET

Sample Data Work Sheet No. 001

CMRO Entry Notification 0927 (Time) CMRO Exit Notification 1027 (Time) Biohazard Delivered to Nurse. 1042 (Time)

Pond:	SL1	SL2	PL1	PL2	ELA	ELB	ELC

TO CONTRACT LAB

SAMPLE CODES	LOCATION	SIZE	ANALYSIS	PRESERVATIVE	DATE/TIME
EC-SL2-20150422-1.4	Settling Lagoon 2	1 Liter	Nitrate	≤ 4° C	4-22-15/1015
2.4		500 mL	TKN	H_2SO_4 to pH≤2; ≤4C	4-22-15/1008
3.4			Sulfate, Chloride, TDS	≤ 4° C	4-22-15/1005
4.4	(Dupe)				4-22-15/1005
EC-ELB-20150422-1.1	Effluent Lagoon B				4-22-15/0942
ELC	C				4-22-15/0947
H19	H-19				4-22-15/0916
BLK	Blank				4-22-15/0959

Personnel: Jerome Hernandez, Michael Quintela

Comments: Pre-job briefing held, Acid safety, Slips & Trips, 4.4 is dupe of 3.4

Collected by: M. Quintela (Printed Name) ES&H Tech (Title) M Qua (Signature) 4-22-15 (Date)

Reviewed by: Jerome Hernandez (Printed Name) Env-Monit (Title) (Signature) 4-22-15 (Date)

Water Level Measurement Field Data Sheet

From January to June Year 2015

Pond Name	Date	Time	Water Depth (ft)	Initials	Comments
Salt Storage Pond 2	1/13/15	14:00	35.81	RJ	N/A
Salt Storage Pond 3	1/13/15	14:10	57.28	RJ	
Salt Storage Pond 2	2/6/15	10:00	36.90	RJ	N/A
Salt Storage Pond 3	2/6/15	10:02	58.10	RJ	N/A
Salt Storage Pond 2	3/6/15	10:02	36.91	RJ	N/A
Salt Storage Pond 3	3/6/15	10:11	59.53	RJ	
Salt Storage Pond 2	4/9/15	12:15	42.97	RJ	Down"
Salt Storage Pond 3	4/9/15	12:21	66.45	RJ	Down
Salt Storage Pond 2	5/7/15	0740	45.26	RJ	Down
Salt Storage Pond 3	5/7/15	0750	72.31	RJ	Down
Salt Storage Pond 2	6/12/15	0832	45.51	RJ	N/A
Salt Storage Pond 3	6/12/15	08:24	70.30	RJ	Down

Performer: Print Name: R. Jimenez Signature: R. Jimenez

Performer: Print Name: Signature:

Performer: Print Name: Signature:

Discharge to Facultative Lagoon System
January through June 2015

Date	gallons Domestic	gallons for the Month
1/5 - 1/11	59,398	
1/12 - 1/18	82,244	
1/19 - 1/25	75,022	
1/16 - 2/1	81,298	297,962
2/2 - 2/8	77,969	
2/9 - 2/15	77,137	
2/16 - 2/22	72,118	
2/23 - 3/1	72,565	299,789
3/2 - 3/8	72,235	
3/9 - 3/15	78,112	
3/16 - 3/22	73,530	
3/23 - 3-29	77,856	301,733
3/30 - 4/5	73,490	
4/6 - 4/15	65,531	
4/13 - 4/19	64,440	
4/20 - 4/26	152,043	
4/27 - 5/3	69,931	425,435
5/4 - 5/10	83,924	
5/11 - 5/17	79,929	
5/18 - 5/24	80,542	
5/25 - 5/31	68,395	312,790
6/1 - 6/7	80,325	
6/8 - 6/14	78,400	
6/15 - 6/21	92,147	
6/21 - 6/28	94,350	345,222
	Total Flow	1,982,931

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

INFORMATION ONLY

Date: 1-5-15 / 1-11-15

Location:				SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING		DAY		SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
		SHIFT		2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING		REVIEWER			[illegible]	[illegible]	[illegible]	R.T.	[illegible]	[illegible]	[illegible]	KM	[illegible]	[illegible]	[illegible]	MM	[illegible]	MM
		FOT		C/O	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	RDS	[illegible]	LD	[illegible]
ITEM	MIN	NORM	MAX															
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	STBY	5761													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5															
412 ODOR ABS MOD FILTER (PDI-09)			0.5															
403 AHU LOW FILTER (PDI-03)			0.5		.24													
403 AHU MOD FILTER (PDI-04)			0.5		0													
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	65	67	65	65	67	67	67	66	66.9	65	66	66	68	68	68
456-FIY-010-001 WATER FLOW METER																		
RAW WATER GALLONS	RESET MONDAY [A]			109800		73165												
DOMESTIC WATER GALLONS	RESET MONDAY [A]			105461		59398												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	9100		12800		17200		27800 ①		~~28987~~ ① 26200	w/1-9-15	50,100 ①		15100		16400
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	.75		.85		.93		1		1.05		1.02		.78		.76

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS: ① High Reported to FSM

APPROVED FOR USE/DATE: [illegible] 061713

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

INFORMATION ONLY

Date: 1-12-15 / 1-18-15

Location:

458, GUARD & SECURITY BUILDING

456, PUMPHOUSE BUILDING

				SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
			DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
			SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
			REVIEWER		1-13-15													
			FOT	C/O														
ITEM	**MIN**	**NORM**	**MAX**															
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	STBY	STBY													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5	↓	↓													
412 ODOR ABS MOD FILTER (PDI-09)			0.5	↓	↓													
403 AHU LOW FILTER (PDI-03)			0.5	.24	0													
403 AHU MOD FILTER (PDI-04)			0.5	Ø	0													
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	68	68	68	67.5	67	67.3	67	67	67	68	67	68	67.9	67.7	67.5
456-FIY-010-001 WATER FLOW METER																		
RAW WATER GALLONS	RESET MONDAY [A]			73165		40401												
DOMESTIC WATER GALLONS	RESET MONDAY [A]			59398		82244												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	16400		20400		11800		10,300		12200		8200		7500		7600
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	.76		.75		.74		.77		1.2		1.2		1.16		1.18

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS:

APPROVED FOR USE/DATE: 061713

INFORMATION ONLY

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

Date: 1-19-15/1-25-15

Location:
458, GUARD & SECURITY BUILDING
456, PUMPHOUSE BUILDING

			DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
			SHIFT	2	1	1	1	2	1	2	1	2	1	2	1	2	1	2
			REVIEWER															R.T.
			FOT	C/O		97	RDS 9-18		9-30		9-30		97	km	97	R.T.	97	km
ITEM	**MIN**	**NORM**	**MAX**															
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	STBY	STBY													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5	↓	↓													
412 ODOR ABS MOD FILTER (PDI-09)			0.5															
403 AHU LOW FILTER (PDI-03)			0.5	.24	.24													
403 AHU MOD FILTER (PDI-04)			0.5	0	0													
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	68	66	66	66	68	67	69	68	68	67	68	68	67	68	67
456-FIY-010-001 WATER FLOW METER						1-19-15												
RAW WATER GALLONS	RESET MONDAY [A]			73165		~~7503.T~~	3.64											
DOMESTIC WATER GALLONS	RESET MONDAY [A]			59398		75022												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	16400		11000		12500		13200		15380		12600		19100		5700
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	.76		1.13		1.15		.90		.88		.84		.86		.85

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS:

APPROVED FOR USE/DATE: 061713

INFORMATION ONLY

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

Date: 1-26-15 — 2-1-15

Location:		DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING		SHIFT	2	1	2	1	2	1	2	1	2	1		1		1	
456, PUMPHOUSE BUILDING		REVIEWER															
		FOT	C/O		R.T.							JKM	RDS	R.T.	LD	JKM	JKM
ITEM	MIN	NORM	MAX														
458, GUARD & SECURITY BUILDING																	
412 ODOR ABS MOD FILTER (PDI-07)			0.5	STBY	STBY												
412 ODOR ABS CHAR FILTER (PDI-08)			0.5														
412 ODOR ABS MOD FILTER (PDI-09)			0.5														
403 AHU LOW FILTER (PDI-03)			0.5	.24	.22												
403 AHU MOD FILTER (PDI-04)			0.5	0	0												
456-CP-010-01 CONTROL PANEL																	
DOMESTIC WATER PRESS (PIC-01)	60	65	70	67	65	67	67	67	66	67	66	67	69	69	68	69	69
456-FIY-010-001 WATER FLOW METER																	
RAW WATER GALLONS	RESET MONDAY [A]			3.64		52860											
DOMESTIC WATER GALLONS	RESET MONDAY [A]			75022		81298											
456-FM-045-001 SEWAGE FLOW METER																	
SEWAGE FLOW GALLONS		[B]	23,000	5760		300		11900		12400		10600		13000		10700		11300
HACH TEST KIT																	
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	.85		.83		.79		.90		.76		1.04		.99		.96

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS:

APPROVED FOR USE/DATE: 061713

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

INFORMATION ONLY

Date: 2-7-15/2-8-15

Location:	DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING	SHIFT	2	1	2	1		1	2	1	2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING	REVIEWER															
	FOT	C/O		RDS				JZM		R.T.	LD				LD	

ITEM	MIN	NORM	MAX	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	STBY	STBY													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5	↓														
412 ODOR ABS MOD FILTER (PDI-09)			0.5	↓														
403 AHU LOW FILTER (PDI-03)			0.5	.22														
403 AHU MOD FILTER (PDI-04)			0.5	0														
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	69	68	68	68	68	67	67	68	68	67	68	67	68	68	67
456-FIY-010-001 WATER FLOW METER					AKC 2-1-15													
RAW WATER GALLONS	RESET MONDAY [A]			52860		78445												
DOMESTIC WATER GALLONS	RESET MONDAY [A]			81298		77969												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	11300		14000		15800		14700		13800		13700		9300		10000
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	.96		.90		.91		.90		1.11		.97		.94		1.13

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS:

APPROVED FOR USE/DATE: 061713

INFORMATION ONLY

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

Date: 020915-021515

Location:				DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING				SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING				REVIEWER		DP	AM	DP	AM	DP	AM	DP	AM	AM	AM	AM	AM	AM	AM
				FOT	C/O	KM	—	R.T.	LD	KM		RT	LD	JOW		—			
ITEM	MIN	NORM	MAX																
458, GUARD & SECURITY BUILDING																			
412 ODOR ABS MOD FILTER (PDI-07)			0.5		STBY	0													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5			0													
412 ODOR ABS MOD FILTER (PDI-09)			0.5			.06													
403 AHU LOW FILTER (PDI-03)			0.5			SPC													
403 AHU MOD FILTER (PDI-04)			0.5																
456-CP-010-01 CONTROL PANEL																			
DOMESTIC WATER PRESS (PIC-01)	60	65	70		67	67	67	67	67	67	67	66	67	66	64	64	65	65	65
456-FIY-010-001 WATER FLOW METER																			
RAW WATER GALLONS	RESET MONDAY [A]				88645		55512												
DOMESTIC WATER GALLONS	RESET MONDAY [A]				77969		77137												
456-FM-045-001 SEWAGE FLOW METER																			
SEWAGE FLOW GALLONS		[B]	23,000		10000		15200		16500		16100		15000		13100		12800		9000
HACH TEST KIT																			
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2		1.13		1.11		1.02		1.60 ①		1.50 ①		1.47 ①		1.49 ①		1.40

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS: ① FSM Notified - Out of Spec -

APPROVED FOR USE/DATE: ① 061713

EA04AD3008-11-0
Rev. 2

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

INFORMATION ONLY

Date: 021615/022215

Location:	DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING	SHIFT	2	1	2	1	2		2		2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING	REVIEWER															
	FOT	C/O					RDS							RT		

ITEM	MIN	NORM	MAX	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	0	0													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5	0	0													
412 ODOR ABS MOD FILTER (PDI-09)			0.5	.06	.07													
403 AHU LOW FILTER (PDI-03)			0.5	SEC	SEC													
403 AHU MOD FILTER (PDI-04)			0.5	↓	↓													
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	65	64	66	65	66	65	65	65	67	67	67	67	67	67	70
456-FIY-010-001 WATER FLOW METER																		
RAW WATER GALLONS	RESET MONDAY [A]			55572		110254												
DOMESTIC WATER GALLONS	RESET MONDAY [A]			77137		72118												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	9000		15200		16100		16400		15400		14400		2500		10200
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	1.46		~~1.47~~ 1.14		1.18		1.14		1.14		.92		1.05		.78

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS: FSM NOTIFIED

APPROVED FOR USE/DATE: 061713

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

INFORMATION ONLY

Date: 2-23 -3-1-15

Location:		DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING		SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING		REVIEWER															
		FOT	C/O		R.T.	JBW				JBW			RDS	R.T.	RDS		LD
ITEM	MIN	NORM	MAX														
458, GUARD & SECURITY BUILDING																	
412 ODOR ABS MOD FILTER (PDI-07)			0.5	0	0												
412 ODOR ABS CHAR FILTER (PDI-08)			0.5	0	0												
412 ODOR ABS MOD FILTER (PDI-09)			0.5	.07	.05												
403 AHU LOW FILTER (PDI-03)			0.5	see	see												
403 AHU MOD FILTER (PDI-04)			0.5	↓	↓												
456-CP-010-01 CONTROL PANEL																	
DOMESTIC WATER PRESS (PIC-01)	60	65	70	70	69	69	68	69	68	68	65	66	70	68	68	68	67	68
456-FIY-010-001 WATER FLOW METER																	
RAW WATER GALLONS	RESET MONDAY [A]			110254		57124											
DOMESTIC WATER GALLONS	RESET MONDAY [A]			72118		72565											
456-FM-045-001 SEWAGE FLOW METER																	
SEWAGE FLOW GALLONS		[B]	23,000	10200		13000		15000		10800		14400		7200		6000		9300 LD 3-1-15
HACH TEST KIT																	
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	.78		.78		.79		.77		.83		.65		.68		.78

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS: ① FSM notified

APPROVED FOR USE/DATE: ① 061713

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

INFORMATION ONLY

Date: 3-2-15/3-8-15

Location:			DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING			SHIFT	2	1		1	2	1	2	1	2		2	1	2		2
456, PUMPHOUSE BUILDING			REVIEWER		DAW	PG	DAW	DP	DAW	DP	DAW	DP	PG	mc	PG	mc	PG	mc
			FOT	C/O		97	R	R.T.	M	Km	R	RT	97	n	97	n	97	n
ITEM	MIN	NORM	MAX															
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	0	STBY													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5	0	↓													
412 ODOR ABS MOD FILTER (PDI-09)			0.5	.05	↓													
403 AHU LOW FILTER (PDI-03)			0.5	SEC	SEC													
403 AHU MOD FILTER (PDI-04)			0.5	↓	↓													
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	68	68	68	68	67	67	70	70	66	65	64	65	65	65	65
456-FIY-010-001 WATER FLOW METER																		
RAW WATER GALLONS	RESET MONDAY [A]			51124		22800												
DOMESTIC WATER GALLONS	RESET MONDAY [A]			72565		72235												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	9300		20800		25500 ①		18400		34900 ①		13400		3500		5900
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	.78		.80		.83		.79		.80		.84		.78		.77

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS: ① FSM notified.

APPROVED FOR USE/DATE: ① [signature] 061713

INFORMATION ONLY

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

Date: 030915 - 031515

Location:
458, GUARD & SECURITY BUILDING
456, PUMPHOUSE BUILDING

			DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
			SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
			REVIEWER		DP	mc	DP	[illegible]	DP	[illegible]	DP	[illegible]	[illegible]	[illegible]	mc	[illegible]	[illegible]	[illegible]
			FOT	C/O	[illegible]	[illegible]	R.T.	97	[illegible]	97	R.T.	97	[illegible]	[illegible]	97	[illegible]	LD	[illegible]
ITEM	**MIN**	**NORM**	**MAX**															
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	STBY	0													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5	↓	0													
412 ODOR ABS MOD FILTER (PDI-09)			0.5	↓	.04													
403 AHU LOW FILTER (PDI-03)			0.5	SEC	STBY ~~SEC~~ RM 3/19/15													
403 AHU MOD FILTER (PDI-04)			0.5	↓	↓													
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	65	61	64	65	68	67	68	64	67	66	62	67	67	66	67
456-FIY-010-001 WATER FLOW METER																		
RAW WATER GALLONS	RESET MONDAY [A]			22800		100832												
DOMESTIC WATER GALLONS	RESET MONDAY [A]			72235		78112												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	5900		17800		12500		9900		8800		7500		7600		7900
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	.77		.72		1.350		1.260		1.08		1.2		1.2		1.2

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS: ① FSM NOTIFIED

APPROVED FOR USE/DATE: ① [illegible] 061713

INFORMATION ONLY

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

Date: 03/15-03/22/15

Location:
458, GUARD & SECURITY BUILDING
456, PUMPHOUSE BUILDING

DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
SHIFT	2		2		2		2		2	1	2	1	2	1	2
REVIEWER															
FOT	C/O	RDS				LD									

ITEM	MIN	NORM	MAX	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	0	0													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5	0	0													
412 ODOR ABS MOD FILTER (PDI-09)			0.5	.04	.05													
403 AHU LOW FILTER (PDI-03)			0.5	STBY	STBY													
403 AHU MOD FILTER (PDI-04)			0.5	↓	↓													
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	67	65	69	69	67	67	67	64	67	68	66	67	66	67	65
456-FIY-010-001 WATER FLOW METER																		
RAW WATER GALLONS	RESET MONDAY [A]			100832		141420												
DOMESTIC WATER GALLONS	RESET MONDAY [A]			28112		73530												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	7800		15600		9700		9000		10000		9300		7200		12700
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	1.2		.95		.99		.91		.93		.73		.83		.86

NOTES: **[A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT**

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS:

APPROVED FOR USE/DATE: 061713

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

INFORMATION ONLY

Date: 3·23·15 – 3·29·15

Location:

458, GUARD & SECURITY BUILDING

456, PUMPHOUSE BUILDING

DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
REVIEWER															
FOT	C/O														

ITEM	MIN	NORM	MAX	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	0	0													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5	0	0													
412 ODOR ABS MOD FILTER (PDI-09)			0.5	.05	.05													
403 AHU LOW FILTER (PDI-03)			0.5	STBY	STBY													
403 AHU MOD FILTER (PDI-04)			0.5	↓	↓													
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	65	63	66	66	67	65	65	64	62	65	65	64	66	66	65
456-FIY-010-001 WATER FLOW METER																		
RAW WATER GALLONS	RESET MONDAY [A]			141420		59939												
DOMESTIC WATER GALLONS	RESET MONDAY [A]			73530		77856												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	12700		25300 (1)		3500		14800		10400		19700		33000 (1)		24500 (1)
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	.96		.87		.84		.79		0.80		.85		1.2		1.08

NOTES: **[A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT**

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS: (1) Informed fsm

APPROVED FOR USE/DATE: (1) 061713

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

INFORMATION ONLY

Date: 033015-040515

Location:	DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING	SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING	REVIEWER															
	FOT	C/O		LD		R.T.				R.T.		9-13	LD	9-13		9-13

ITEM	MIN	NORM	MAX	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	0	0													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5	0	0													
412 ODOR ABS MOD FILTER (PDI-09)			0.5	.05	.01													
403 AHU LOW FILTER (PDI-03)			0.5	STBY	STBY													
403 AHU MOD FILTER (PDI-04)			0.5	↓	↓													
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	65	66	65	65	65	62	64	63	64	64	65	65	64	65	64
456-FIY-010-001 WATER FLOW METER																		
RAW WATER GALLONS		RESET MONDAY [A]		59931		118879.28												
DOMESTIC WATER GALLONS		RESET MONDAY [A]		72856		73489.8												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	29500 (1)		38900 (1)		32300 (1)		28200 (1)		57900 (1)		18000		50 00		8700
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	1.08		1.2		1.2		1.2		1.2		1.18		.97		1.18

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS: (1) FSM notified Meter cleaned out on Friday 4/3/14

APPROVED FOR USE/DATE: (1) 061713

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

Original

INFORMATION ONLY

Date: 040615 / 041215

Location:				DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING				SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING				REVIEWER															
				FOT	C/O														
ITEM	MIN	NORM	MAX																
458, GUARD & SECURITY BUILDING																			
412 ODOR ABS MOD FILTER (PDI-07)			0.5		0	4/16/15 STBY													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5		0														
412 ODOR ABS MOD FILTER (PDI-09)			0.5		.01	4/16/15													
403 AHU LOW FILTER (PDI-03)			0.5		STBY	STBY													
403 AHU MOD FILTER (PDI-04)			0.5																
456-CP-010-01 CONTROL PANEL																			
DOMESTIC WATER PRESS (PIC-01)	60	65	70		64	64	64	66	66	65	65	67	69	69	67	69	69	69	68
456-FIY-010-001 WATER FLOW METER																			
RAW WATER GALLONS	RESET MONDAY [A]				118379.72		24532.42												
DOMESTIC WATER GALLONS	RESET MONDAY [A]				73489.8		65531.20												
456-FM-045-001 SEWAGE FLOW METER																			
SEWAGE FLOW GALLONS		[B]	23,000		8700		13800		14500		14800		16400		12200		8600		5700
HACH TEST KIT																			
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2		1.18		1.17		1.18		1.12		1.2		1.2		1.2		1.2

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS:

APPROVED FOR USE/DATE: 061713

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

INFORMATION ONLY

Date: 4/13/15 - 4/19/15

Location:

458, GUARD & SECURITY BUILDING

456, PUMPHOUSE BUILDING

			DAY	**SUN**	**MON**		**TUES**		**WED**		**THURS**		**FRI**		**SAT**		**SUN**	
			SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
			REVIEWER															
			FOT	C/O			RDS		LD									
ITEM	**MIN**	**NORM**	**MAX**															
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	5/84	5/84													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5															
412 ODOR ABS MOD FILTER (PDI-09)			0.5															
403 AHU LOW FILTER (PDI-03)			0.5															
403 AHU MOD FILTER (PDI-04)			0.5															
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	68	68	68	68	69	65	66	66	68	68	68	68	69	68	69
456-FIY-010-001 WATER FLOW METER																		
RAW WATER GALLONS	RESET MONDAY [A]			24532	.42	25631												
DOMESTIC WATER GALLONS	RESET MONDAY [A]			65531	20	66440												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	5700		16100		16700		17800		18800		16500		11400		11700
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	1.2		1.14		1.17		.91		1.19		1.16		.88		.83

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS:

APPROVED FOR USE/DATE: 061713

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

INFORMATION ONLY

Date: 4-20-15 - 4-26-15

Location:	DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING	SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING	REVIEWER		DP	DP	mc	[illegible]	mc	[illegible]	mc	[illegible]	97	AC	km	AC	R.T.	AC
	FOT	C/O	4-B	R.T.	4B	[illegible]	4-B	[illegible]	4B	[illegible]	km	LD	R.T.	LD	JRM	[illegible]

ITEM	MIN	NORM	MAX	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	STBY	0													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5		0													
412 ODOR ABS MOD FILTER (PDI-09)			0.5		.04													
403 AHU LOW FILTER (PDI-03)			0.5		STBY													
403 AHU MOD FILTER (PDI-04)			0.5		↓													
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	69	69	69	68	68	68	68	68	68	69	68	68	69	69	67
456-FIY-010-001 WATER FLOW METER																		
RAW WATER GALLONS	RESET MONDAY [A]			25631		180381												
DOMESTIC WATER GALLONS	RESET MONDAY [A]			64440		152043												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	11200		15100		13200		14200		17600		10900		9800		7700
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	.83		.79		.75		1.19		1.4 (1)		1.44 (1)		1.2		1.2

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS: (1) Add WATER As needed.

APPROVED FOR USE/DATE: [illegible] 061713

INFORMATION ONLY

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

Date: 4/27/15 5/3/15

Location:				DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING				SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING				REVIEWER		[illegible]	[illegible]	[illegible]	Rm	[illegible]	R.T.	[illegible]	Rm	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
				FOT	C/O	[illegible]	RDS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	R.T.	[illegible]	[illegible]	[illegible]	[illegible]	RDS	[illegible]
ITEM	MIN	NORM	MAX																
458, GUARD & SECURITY BUILDING																			
412 ODOR ABS MOD FILTER (PDI-07)			0.5		0	0													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5		0	0													
412 ODOR ABS MOD FILTER (PDI-09)			0.5		.04	.04													
403 AHU LOW FILTER (PDI-03)			0.5		ST.34	STSY													
403 AHU MOD FILTER (PDI-04)			0.5		↓	↓													
456-CP-010-01 CONTROL PANEL																			
DOMESTIC WATER PRESS (PIC-01)	60	65	70		67	67	67	68	67	67	67	66	65	66	64	67	69	68	68
456-FIY-010-001 WATER FLOW METER																			
RAW WATER GALLONS	RESET MONDAY [A]				180381		42445												
DOMESTIC WATER GALLONS	RESET MONDAY [A]				152043		69931												
456-FM-045-001 SEWAGE FLOW METER																			
SEWAGE FLOW GALLONS		[B]	23,000		7700		13800		13100		11500		18600		17100		12400		12800
HACH TEST KIT																			
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2		1.2		1.2		1.2		1.08		1.07		.94		.8		.81

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS:

APPROVED FOR USE/DATE: [illegible] 061713

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

Original

INFORMATION ONLY

Date: 5-4-15 / 5-10-15

Location:			DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING			SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING			REVIEWER		R.T.	mc	Rm	PG	R.T.	PG	Rm	PG	mc	PJP	mc	DEW	mc	DEW
			FOT	C/O	9-13	✓	9-13	LD	9-13	[illegible]	R.T.	RDS	JBO	[illegible]	✓	✓	✓	[illegible]
ITEM	MIN	NORM	MAX															
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	0	0													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5	0	0													
412 ODOR ABS MOD FILTER (PDI-09)			0.5	.04	.04													
403 AHU LOW FILTER (PDI-03)			0.5	STBY	STBY													
403 AHU MOD FILTER (PDI-04)			0.5	↓	↓													
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	48	65	68	65	67	67	66	66	66	66	68	69	68	65	64
456-FIY-010-001 WATER FLOW METER																		
RAW WATER GALLONS	RESET MONDAY [A]			42445		78862												
DOMESTIC WATER GALLONS	RESET MONDAY [A]			69931		87924												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	12800		20300		19,000		18000		20450		20000		11000		12900
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	.81		.75		.74		.94		.73		.75		.7		.81

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS:

APPROVED FOR USE/DATE: [illegible] 061713

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

Original

INFORMATION ONLY

Date: 05/11/15 - 05/17/15

Location:				DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING				SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING				REVIEWER		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	R.T.	[illegible]	[illegible]	[illegible]	R.T.
				FOT	C/O	LD	[illegible]	[illegible]	[illegible]	RDS	[illegible]	LD	[illegible]	[illegible]	9-B	[illegible]	9-B	[illegible]	[illegible]
ITEM	MIN	NORM	MAX																
458, GUARD & SECURITY BUILDING																			
412 ODOR ABS MOD FILTER (PDI-07)			0.5		0	0													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5		0	0													
412 ODOR ABS MOD FILTER (PDI-09)			0.5		.04	.06													
403 AHU LOW FILTER (PDI-03)			0.5		STBY	STBY													
403 AHU MOD FILTER (PDI-04)			0.5		↓	↓													
456-CP-010-01 CONTROL PANEL																			
DOMESTIC WATER PRESS (PIC-01)	60	65	70		64	64	66	65	65	65	67	65	66	66	66	109	69	68	68
456-FIY-010-001 WATER FLOW METER																			
RAW WATER GALLONS	RESET MONDAY [A]				78862		88654												
DOMESTIC WATER GALLONS	RESET MONDAY [A]				83924		99424												
456-FM-045-001 SEWAGE FLOW METER																			
SEWAGE FLOW GALLONS		[B]	23,000		12900		19300		19600		20400		21900		17800		11100		12900
HACH TEST KIT																			
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2		.81		.87		.87		.83		.82		.73		.7		.71

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS:

APPROVED FOR USE/DATE: [illegible] 061713

INFORMATION ONLY

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

Date: 5-18-15-5-24-15

Location:		DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING		SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING		REVIEWER										R.T.				R.T.	
		FOT	C/O		R.T.									R.T.	CD		CD
ITEM	MIN	NORM	MAX														
458, GUARD & SECURITY BUILDING																	
412 ODOR ABS MOD FILTER (PDI-07)			0.5	0	Ø												
412 ODOR ABS CHAR FILTER (PDI-08)			0.5	0	Ø												
412 ODOR ABS MOD FILTER (PDI-09)			0.5	.06	.08												
403 AHU LOW FILTER (PDI-03)			0.5	STBY	STBY												
403 AHU MOD FILTER (PDI-04)			0.5	↓	↓												
456-CP-010-01 CONTROL PANEL																	
DOMESTIC WATER PRESS (PIC-01)	60	65	70	68	67	67	67	67	68	68	67	66	66	68	68	68	67	68
456-FIY-010-001 WATER FLOW METER																	
RAW WATER GALLONS	RESET MONDAY [A]			88654		152549											
DOMESTIC WATER GALLONS	RESET MONDAY [A]			79929		80542											
456-FM-045-001 SEWAGE FLOW METER																	
SEWAGE FLOW GALLONS		[B]	23,000	12900		31200 ①		19400		20000		15400		10900		9400		5800
HACH TEST KIT																	
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	.71		.79		.78		.74		.74		.84		.79		.75

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS: ① out of spec. FSM notified

APPROVED FOR USE/DATE: 061713

Original

INFORMATION ONLY

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

Date: 5-25-15 / 5-31-15

Location:			DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING			SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING			REVIEWER															
			FOT	C/O														
ITEM	MIN	NORM	MAX															
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5		STBY													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5															
412 ODOR ABS MOD FILTER (PDI-09)			0.5	.08														
403 AHU LOW FILTER (PDI-03)			0.5	STBY														
403 AHU MOD FILTER (PDI-04)			0.5															
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	68	68	67	67	66	64	67	67	67	Late	67	67	66	66	66
456-FIY-010-001 WATER FLOW METER																		
RAW WATER GALLONS	RESET MONDAY [A]			152549		70078.9												
DOMESTIC WATER GALLONS	RESET MONDAY [A]			80542		68394.7												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	5800		10800		18700		8 19700 (5-28-15)		18200		17500		10200		18700
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	.75		.75		.73		1.16		1.17		1.09		1.15		1.11

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS:

APPROVED FOR USE/DATE: 061713

Original

INFORMATION ONLY

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

Date: 6-1-15 - 6-7-15

Location:																
458, GUARD & SECURITY BUILDING		DAY		SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
		SHIFT		2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING		REVIEWER			R.T.	ML	R.T.	[illegible]	KM	[illegible]	[illegible]	[illegible]	ML	[illegible]	ML	[illegible]	ML	[illegible]
		FOT		C/O	[illegible]	[illegible]	[illegible]	RDS	[illegible]	CD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ITEM	MIN	NORM	MAX															
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	STBY	0													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5		0													
412 ODOR ABS MOD FILTER (PDI-09)			0.5		.04													
403 AHU LOW FILTER (PDI-03)			0.5		STBY													
403 AHU MOD FILTER (PDI-04)			0.5															
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	66	64	67	66	66	65	65	65	69	67	69	67	66	65	65
456-FIY-010-001 WATER FLOW METER																		
RAW WATER GALLONS	RESET MONDAY [A]			70076		61486												
DOMESTIC WATER GALLONS	RESET MONDAY [A]			68394		80724												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	18700		17700		16,000		19300		14900		199100		154500		446200
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	1.11		1.07		1.08		1.07		.74		.7		1.11		1.14

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS:

APPROVED FOR USE/DATE: [illegible] 061713

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

Original

INFORMATION ONLY

Date: 6/8/15 - 6/04/15

Location:	DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING	SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING	REVIEWER															
	FOT	C/O	RDS		LD											

ITEM	MIN	NORM	MAX	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	0	0													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5	0	0													
412 ODOR ABS MOD FILTER (PDI-09)			0.5	.04	.03													
403 AHU LOW FILTER (PDI-03)			0.5	STBY	STBY													
403 AHU MOD FILTER (PDI-04)			0.5	↓	↓													
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	65	64	70	65	69	65	68	66	68	67	69	69	69	69	68
456-FIY-010-001 WATER FLOW METER																		
RAW WATER GALLONS		RESET MONDAY [A]		61486		120940												
DOMESTIC WATER GALLONS		RESET MONDAY [A]		80324		78400												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	446200		323700		278500 ①		409000 ①		860000 ①		397200 ①		211800 ①		378100 ①
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	1.14		.91		1.02		1.10		1.04		1.12		1.03		1.04

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS: ① HIGH OUT OF SPEC - AR # 1506455 SUBMITTED

APPROVED FOR USE/DATE: ① 061713

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

INFORMATION ONLY

Date: 6-15-15 / 6-21-15

Location:																	
458, GUARD & SECURITY BUILDING			DAY	SUN	MON		TUES		WED		THURS	6/18/15	FRI		SAT		SUN	
			SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING			REVIEWER															
			FOT	C/O			SBW				SBW		DP	LD				
ITEM	MIN	NORM	MAX															
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	0	0													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5	0	0													
412 ODOR ABS MOD FILTER (PDI-09)			0.5	.03	.01													
403 AHU LOW FILTER (PDI-03)			0.5	STBY	STBY													
403 AHU MOD FILTER (PDI-04)			0.5	↓	↓													
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	68	68	67	67	70	67	69.4	67	68.4	68	68	67	67	68	69
456-FIY-010-001 WATER FLOW METER																		
RAW WATER GALLONS	RESET MONDAY [A]			120940		61209												
DOMESTIC WATER GALLONS	RESET MONDAY [A]			78400		92147												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	378100		372700		449300		388500		426900		403000		423300		530,000 ①
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	1.04		1.09		0.72		0.71		0.99		.75		.80		.55 ①

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS: ① HIGH OUT OF SPEC AR# 1506455

② FSM notified - out of spec. Ladder use on H_2O tank in question.

APPROVED FOR USE/DATE: ① 061713

INFORMATION ONLY

Facility Site Operations and Infrastructure Bldg 458 / 456 Round Sheet

Date: 061215 - 062815

Location:																	
458, GUARD & SECURITY BUILDING			DAY	SUN	MON		TUES		WED		THURS		FRI		SAT		SUN	
			SHIFT	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
456, PUMPHOUSE BUILDING			REVIEWER															
			FOT	C/O		LD			97				RT	RDS	RDS			
ITEM	MIN	NORM	MAX															
458, GUARD & SECURITY BUILDING																		
412 ODOR ABS MOD FILTER (PDI-07)			0.5	0	0													
412 ODOR ABS CHAR FILTER (PDI-08)			0.5	0	0													
412 ODOR ABS MOD FILTER (PDI-09)			0.5	.01	0													
403 AHU LOW FILTER (PDI-03)			0.5	STBY	STBY													
403 AHU MOD FILTER (PDI-04)			0.5	↓	↓													
456-CP-010-01 CONTROL PANEL																		
DOMESTIC WATER PRESS (PIC-01)	60	65	70	69	67	69	69	68	67	70	70	69	68	69	69	68	67	67
456-FIY-010-001 WATER FLOW METER																		
RAW WATER GALLONS	RESET MONDAY [A]			61209		125190												
DOMESTIC WATER GALLONS	RESET MONDAY [A]			52147		94350												
456-FM-045-001 SEWAGE FLOW METER																		
SEWAGE FLOW GALLONS		[B]	23,000	530,100 ①		337000 ②		366,000 ①		306200 ①		366300 ①		421100 ①		414100 ①		347900 ①
HACH TEST KIT																		
COLORIMETER FREE CL2 (PPM)	0.7	[C]	1.2	.53 ②		.54 ②		.66 ②		1.16		1.06		1.04		1.09		1.06

NOTES: [A] - RESET METER AFTER TAKING THE READING ON MONDAY SECOND SHIFT

[B] - REQUIRED FOR COMPLIANCE WITH NMED DISCHARGE PERMIT DP-831 -- IF MAX LIMIT OF 23,000 GPD IS EXCEEDED CONTACT FSM

[C] - ADJUST CHLORINE LEVELS BY EITHER ADDING WATER (CHLORINE ABOVE 1.2) OR ADDING CHLORINE (CHLORINE BELOW .7) TO MAINTAIN SPECIFICATIONS

COMMENTS: ① Out of spec - FSM notified AR150e455

② FSM notified out of spec. Ladder use on H_2O tank in question.

APPROVED FOR USE/DATE: ① 061713