

То:	Nevada Division of Environmental Protection Nevada Environmental Response Trust
Cc:	Nevada Environmental Response Trust Stakeholders
From:	Michael Del Vecchio, Director Engineering and Project Management
Date:	June 20, 2023
Subject:	NERT – GWETS Operation Monthly Report – May 2023

At the request of the Nevada Environmental Response Trust (Trust), Envirogen Technologies, Inc. (ETI) is providing this summary of the groundwater extraction and treatment system (GWETS) operation and performance during May 2022.

# **Summary of GWETS Operation**

Envirogen Technologies, Inc. (ETI) mechanically operated the GWETS and ion exchange (IX) system normally in May 2023. Flow from PC-118, PC-119, PC-120, PC-121, and PC-133 were routed to the IX system, bypassing all flow meters associated with the FBR plant for the month of May. The flow rate to the IX system averaged approximately 269 gallons per minute (gpm). The flow rate to the FBR plant averaged approximately 911 gpm during May. At the end of the month, the filled GW-11 Pond volume was at 44.8 million gallons (MG), which would allow 12.3 days of available additional storage in the event of an emergency FBR plant shutdown with continued well field pumping. The water volume stored in the GW-11 Pond decreased since the end of April 2023; Figure 1 in this report depicts the actual GW-11 pond volumes and additional storage available.

The influent perchlorate concentration to the IX system averaged 0.96 mg/L for the month. The influent perchlorate concentration to the FBR plant averaged 57 mg/L for the month, with a maximum concentration of 60 mg/L. In comparison, the influent perchlorate concentration to the FBRs for the month of April 2023 averaged 51 mg/L, with a maximum concentration of 55 mg/L.

#### **Enhanced Operational Metrics**

Tables 1 and 2 provide a summary of the current GWETS operational metrics data for flow rates, perchlorate and chromium concentrations, and mass removal. Figure 2 graphically presents historical perchlorate and chromium mass flux information. Attachment A provides a summary of the NPDES permit analytes with numerical discharge limits.

# **Operational Issues**

All routine plant repairs conducted by ETI were performed in accordance with the NERT Perchlorate

Treatment System Operations Manual. The following is a list of operational issues and major repairs and/or equipment replaced during this reporting period.

### 1. GW-11

There were no operational issues with GW-11 in the month of May.

#### 2. Biological Plant

There were influent / effluent diversions during the reporting period generally associated with maintenance activities as well as extraction well short-term shutdown events. Below is a description of the events that occurred:

#### **Diversion Events / Well Shutdowns**

- Influent diversion occurred on May 2, 2023 from 2:24pm to 2:35pm due to a loss of flow from Lift Station 2 as a result of a communication signal error. Communication signal and flow from Lift Station 2 were reestablished and the plant was brought back online. Approximately 11,000 gallons of water were added to GW-11.
- Influent diversion occurred on May 12, 2023 from 1:36pm to 4:21pm due to maintenance efforts on a Separator level control valve. Maintenance efforts were completed and the plant was brought back online. Approximately 135,000 gallons of water were added to GW-11.
- Extraction wellfield shutdown of the SWF occurred on May 23, 2023 from 7:43am to 8:13am due to a communication signal error. The communication signal was reestablished and the wellfield was brought back online.

# 3. IX Treatment Plant

During the month of February 2022, flooding conditions were observed adjacent to the SWF as a result of the City of Henderson's (CoH's) use of inactive Birding Ponds 10 through 13. The discharge to these ponds resulted in an increase in groundwater elevation adjacent to the SWF by approximately 5 feet. This increase in groundwater elevation caused flooding adjacent to the SWF extraction wells and within four extraction well vaults. ETI temporarily increased the pumping rate of extraction wells PC-120 and PC-121 to reduce flooding with the well vaults. Additionally, the concentration of perchlorate in shallow groundwater increased resulting in increased loading to the IX treatment plant. The CoH ceased discharging water to Birding Ponds 10 through 13 in February 2022. The groundwater elevation adjacent to the SWF is no longer elevated but perchlorate concentrations are still elevated, although decreasing, in shallow groundwater adjacent to wells PC-118, PC-119, PC-120, and PC-121.

# 4. Spills

There were no reportable spills in the Month of May.

#### 5. Maintenance

- Major maintenance performed by ETI in the reporting month included:
  - I. Sludge transferring AOD pump was installed in the D1 building.
  - II. New air receiving tank and air dryer installed.
  - III. LCV-2012 actuator and positioner was replaced.
  - IV. Both 3" ball valves on the east press were replaced.
  - V. Rebuilt the Treatment System Extension polymer pump discharge to install injection quill.
  - VI. Installed saddle for sample port at the Treatment System Extension vault and blind flanges on the influent line.
  - VII. Removed and replaced the P-100 motor.
- Preventative maintenance performed by ETI in the reporting month included:
  - I. Greased the turbines at Lift Station 1.
  - II. Monthly rotating equipment inspection completed.
  - III. Inspected and cleaned HMI cabinets.
  - IV. Monthly fire cabinet inspection completed.
  - V. North DAF inspection completed.
  - VI. Plant air piping was inspected for leaks.
  - VII. Containments on and off site inspected for cracks or possible leaks.
  - VIII. ORPs flushed and calibrated on FBR skids.
  - IX. Alarm and auto dialer tested for proper call out.
  - X. Straps and slings inspected for tears and dry rotting and replaced.

Attachment B contains a summary of all maintenance activities completed during the reporting period.

# **Facility Projects**

- Treatment System Extension (TSE) Envirogen has delivered all of the contracted equipment for the GWETS extension. TSE construction and system start-up is being facilitated by Arcadis through terms with the Trust and began in December 2021. System startup began in April 2023. Treatment of impacted TIMET groundwater began in May 2023. ETI will incorporate a summary of the treatment operations in the June 2023 reporting.
- Facility Repair/Replacement Items Envirogen and the Trust have finalized a list of facility items to be addressed in connection with Amendment 8 to the O&M Agreement. All work with the exception of repainting the ethanol tank and replacement of the DAF have been completed. Specific details on in-progress items are provided below:
  - I. (WA 23-03) Dissolved Air Floatation (DAF) Vessel replacement-
    - 1. DAF work authorization signed by ETI.
  - II. (WA 23-01) Coating of Ethanol Tank
    - 1. Procurement complete.
    - 2. Coating application completed.

- 3. Improved Biological Treatment Plant Efficiency Consistent with Attachment D to the December 2021 GWETS Operation Monthly Report, Envirogen plans to take five FBRs out of service and maintain them in working condition should they be needed in the future. This action will reduce the use of electricity and water and still maintain sufficient treatment capacity to address current groundwater extracted from the IWF, AWF, and the SWF as well as groundwater to be extracted as part of the Unit 4 Source Area In-Situ Bioremediation Treatability Study. FBR A was placed into Offline mode on April 13, 2022. The electrical and mechanical components of the pump skid were inspected and removed when applicable. The removal of the sand media is complete. Final inspection of all internal components is also complete. The remaining FBRs scheduled to be taken out of service will be addressed in the 4<sup>th</sup> quarter of 2023.
- 4. GWETS Pipeline Realignments ETI was made aware of at least three locations approximately 1.75 miles from the site which will require the modification of the influent and effluent pipelines due to conflicts with ongoing development in the area. The Trust has authorized Tetra Tech to engage with the required property owners to design and build the new sections of pipeline. ETI continues to work with both Tetra Tech and the Trust to verify plans are acceptable and plant downtime is kept to a minimum during the construction efforts. In December, the first pipeline realignment project immediately north of Galleria Drive was completed. The second pipeline realignment located further north of Galleria Drive was determined to be unnecessary as the vertical separation between the GWETS pipelines and the stormwater culvert under construction did not place an unacceptable load on the pipelines at this location. The third pipeline realignment is located in the vicinity to Pabco Road and Galleria Road and is expected to be completed in 3<sup>rd</sup> quarter of 2023. ETI is currently supporting the Trust as required on this project while the Trust finalizes project design with the property owners.
- 5. Water Reuse Consistent with the Trust's efforts to reduce its water consumption and acknowledgment of best management practices, accelerated by the Basic Water Company (BWC) bankruptcy filing, the Trust is actively pursuing multiple options to become independent of the BWC water distribution system. To that end, it is the objective of the Trust to replace the water currently distributed by BWC through implementation of a water filtration system to allow for reuse of the GWETS effluent. The filtered effluent can only be used within treatment operations. Equipment integration is expected to begin in early June 2023.

# **Tables**

**Operational Metrics** 

#### Table 1 - Flow Rate and Perchlorate and Chromium Concentrations

Nevada Environmental Response Tr	rust I Groundwater Extractio	n and Treatment System 1	Monthly Stakeholder Metrics	
Location ID	Average Flow Rate (gpm)	Perchlorate (mg/L) <sup>4</sup>	Chromium (TR) (mg/L)⁴	Chromium(VI) (mg/L)⁴
SWF Total Extraction <sup>1</sup>	<b>726</b> <sup>3</sup>	8.0	0.0019	0.0023
AWF Total Extraction <sup>1</sup>	441 <sup>3</sup>	49	0.11	0.10
IWF Total Extraction <sup>1</sup>	48 <sup>3</sup>	389	5.4	5.5
AP Area Total Extraction <sup>1</sup>	<b>9.2</b> <sup>3</sup>	577	0.20	0.19
GWTP Effluent <sup>2</sup>	60	410	0.40	0.00023
GW-11 Influent <sup>1</sup>	0.10	30	0.060	0.051
FBR Influent <sup>2</sup>	911	57	0.082	0.033

Notes:

ND = Not detected above laboratory method detection limit (Cr(VI) = 0.25 ug/L).

TR = Total Recoverable.

1: Perchlorate and chromium TR sampled monthly, values reported from Eurofins TestAmerica.

2: Perchlorate, chromium TR, and chromium (VI) sampled weekly, values reported from Eurofins TestAmerica.

3: Sum of daily average flow for individual wells.

4: All concentrations reported are monthly flow weighted averages.

#### Table 2 - Perchlorate and Chromium Mass Flux

Nevada Environmental Response Tr	ust I Groundwater Extraction and Tre	atment System I Monthly Stakehold	ler Metrics
Location ID	Perchlorate (lbs/month) <sup>1</sup>	Chromium (TR) (lbs/month) <sup>1</sup>	Chromium (VI) (lbs/month) <sup>1</sup>
SWF Total Extraction	1,790	0.43	0.51
AWF Total Extraction	8,093	18	17
IWF Total Extraction	7,042	98	100
AP Area Total Extraction	1,971	0.68	0.64
GWTP Effluent	9,188	9.1	0.0053
GW-11 Influent	1.1	0.0021	0.0018
FBR Influent <sup>1</sup>	19,385	39	16

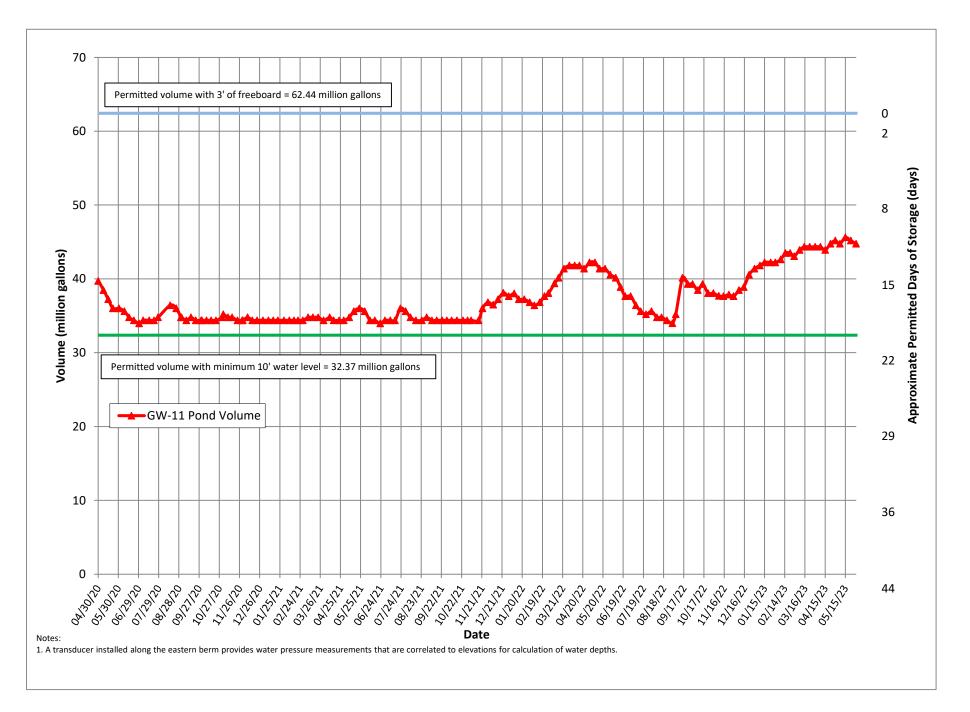
Notes:

TR = Total Recoverable.

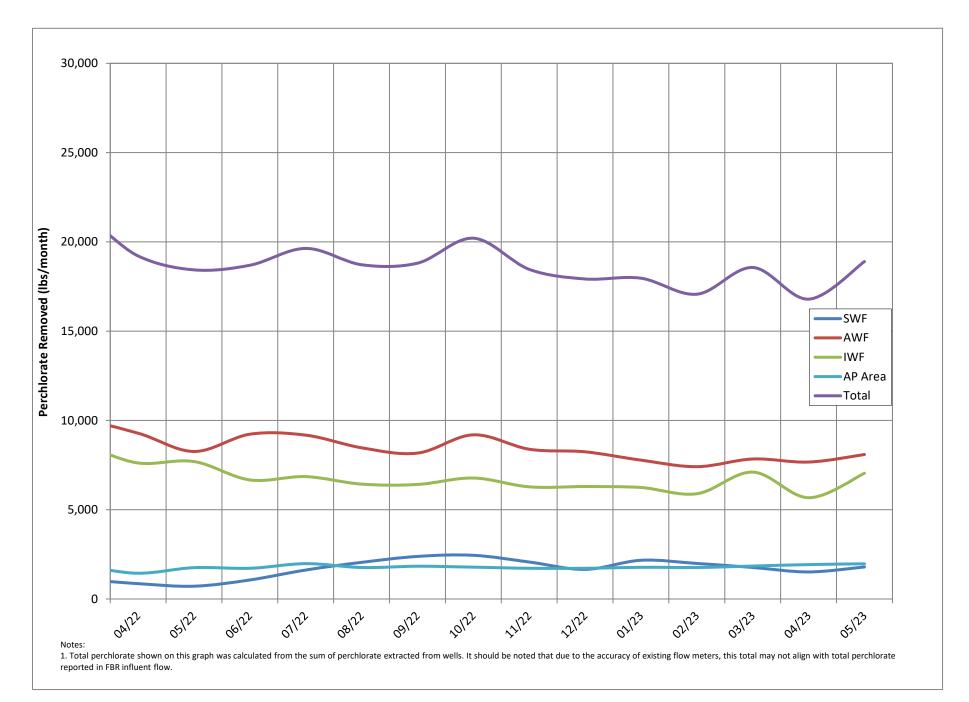
1: Total mass extracted is calculated from flow weighted average concentration and average flow (see Table 1).

# **Figures**

**Operational Metrics** 







# **Attachment A**

NPDES Tracking Sheet (Prepared by Ramboll)

											Trea	ted Effluent at Out	fall 001													
	Cont	inuous	Daily Samples, o	composited weekly								Weekly Grab Sa	amples									Weekly, c	ollected sepa	arately		Quarterly
	Flov	v Rate	Perc	hlorate		i	рΗ	Hexavalent Chromium	Total Chromium	Manganese	Total Iron	Total Inorganic Nitrogen (TIN)			Total A	Ammonia a	is N	Total	Phosphoru	is as P		во	<b>D</b> 5 (inhibited)	I		Total Dissolved Solids (TDS)
	30-Day Avg. (MGD)	Daily Maximum (MGD)	30-Day Avg. (μg/L)	30-Day Avg. (Ibs/day)		Daily Min. (S.U.)	Daily Max. (S.U.)	Daily Max. (µg/L)	Daily Max. (µg/L)	Daily Max. (µg/L)	Daily Max. (µg/L)	Daily Max. (mg/L)	Daily Averag (mg/L)	e 30-Day Avg. (Ibs/day)		-Day Avg. Ibs/day)		3	30-Day Avg (Ibs/day)			30-Day Avg. (mg/L)	Daily Max. (mg/L)	30-Day Avg. (Ibs/day)		Daily Max. (mg/L)
	2.52	2.88	18	0.38		6.5	9.0	10	100	5,000	10,000	20	135	2,839		20*			10*		1 1	25	40	525		8,000
January 2023	1.70	1.76	ND (<1.6)	0.011		6.6	6.9	ND (<0.150)	26	390	1,100	0.96	13	190		1.9			5.1			ND (<5.0)	ND (<5.0)	36		
February 2023	1.69	1.75	1.1	0.015		6.8	7.1	ND (<0.150)	41	340	1,300	1.3	22	310		4.2			7.2			ND (<5.0)	ND (<5.0)	35		3,900
March 2023	1.67	1.78	2.3	0.033		7.1	7.4	ND (<0.150)	13	320	1,100	1.3	20	270		3.6			5.6			ND (<5.0)	ND (<5.0)	35		-
April 2023	1.63	1.75	1.6	0.021		6.8	7.1	ND (<0.150)	35	390	940	0.82	15	200		2.5			4.6			ND (<5.0)	ND (<5.0)	34		2 000
May 2023 (month to date)	1.68	1.79	3.8	0.052		7.0	7.2	ND (<0.150)	20	360	5,400	1.1	21	287		2.9			6.4			ND (<5.0)	ND (<5.0)	35		- 3,800
					-	-																				
	Daily Grab Sample Dates	Composite Sample Date	μ	g/L lbs/day	Sample Date	s	.U.	μg/L	μg/L	μg/L	μg/L	mg/L	mg/L	lbs/day	mg/	L	lbs/day	mg	;/L	lbs/day	Sample Date	mg,	Ľ	lbs/day	Sample Date	mg/L
	1/1 - 1/7	1/7/2023	ND (<1.6) 0	.8 0.011	1/4/2023	6	5.6	ND (<0.150)	10	340	830	0.87	ND(<10) 5	5 70		0.090	1.3		0.43	6.0	1/4/2023	ND (<5.0)	2.5	35		
	1/8 - 1/14	1/14/2023	ND (<1.6) 0	.8 0.011	1/11/2023	e	5.8	ND (<0.150)	22	280	690	0.80	1	0 142		0.044	0.63		0.30	4.3	1/11/2023	ND (<5.0)	2.5	36		
	1/15 - 1/21	1/21/2023	ND (<1.6) 0	.8 0.012	1/18/2023	e	5.8	ND (<0.150)	15	350	1100	0.80	1	9 275		0.16	2.3		0.40	5.8	1/18/2023	ND (<5.0)	2.5	36		
	1/22 - 1/28	1/28/2023	ND (<1.6) 0	.8 0.012	1/25/2023	e	5.9	ND (<0.150)	26	390	760	0.96	1	9 277		0.24	3.5		0.31	4.5	1/25/2023	ND (<5.0)	2.5	36		
	1/29 - 2/4	2/4/2023	ND (<1.6) 0	.8 0.011	2/1/2023	7	7.1	ND (<0.150)	7.6	340	620	0.80	2	0 281		0.16	2.3		0.32	4.5	2/1/2023	ND (<5.0)	2.5	35		
	2/5 - 2/11	2/11/2023	ND (<1.6) 0	.8 0.011	2/8/2023	e	5.8	ND (<0.150)	41	290	1100	0.87	24	4 349		0.19	2.8		0.31	4.5	2/8/2023	ND (<5.0)	2.5	36		
	2/12 - 2/18	2/18/2023	2.0 2	.0 0.027	2/15/2023	e	5.8	ND (<0.150)	3.8	280	970	0.75	20	0 282		0.15	2.1		0.49	6.9	2/15/2023	ND (<5.0)	2.5	35		
	2/19 - 2/25	2/25/2023	ND (<1.6) 0	.8 0.011	2/22/2023	7	7.0	ND (<0.150)	25	260	1300	1.3	24	4 335		0.69	9.6		0.91	12.7	2/22/2023	ND (<5.0)	2.5	35	2/28/2023	3,900
	2/26 - 3/4	3/4/2023	ND (<1.6) 0	.8 0.012	3/1/2023	7	7.2	ND (<0.150)	13	320	1100	0.22	1	2 174		0.20	2.9		0.49	7.1	3/1/2023	ND (<5.0)	2.5	36		
	3/5 - 3/11	3/11/2023	ND (<1.6) 0	.8 0.011	3/8/2023	7	7.1	ND (<0.150)	9.5	300	620	1.0	14	4 196		0.23	3.2		0.30	4.2	3/8/2023	ND (<5.0)	2.5	35		
	3/12 - 3/18	3/18/2023	ND (<1.6) 0	.8 0.011	3/15/2023	7	7.2	ND (<0.150)	11	290	860	1.3	2	2 284		0.33	4.3		0.40	5.2	3/15/2023	ND (<5.0)	2.5	32		
	3/19 - 3/25	3/25/2023	ND (<1.6) 0	.8 0.011	3/22/2023	7	7.1	ND (<0.150)	5.3	240	710	0.71	2	1 298		0.18	2.6		0.33	4.7	3/22/2023	ND (<5.0)	2.5	35		
	3/26 - 4/1	4/1/2023	8.4 8	.4 0.120	3/29/2023	7	7.4	ND (<0.150)**	4.8	260	620	1.1	2	9 413		0.35	5.0		0.49	7.0	3/29/2023	ND (<5.0)	2.5	36		
	4/2 - 4/8	4/8/2023	ND (<1.6) 0	.8 0.011	4/5/2023	e	5.8	ND (<0.150)	0.87	260	210	0.79	1	6 223		0.16	2.2		0.32	4.5	4/5/2023	ND (<5.0)	2.5	35		
	4/9 - 4/15	4/15/2023	ND (<1.6) 0	.8 0.011	4/12/2023	7	7.0	ND (<0.150)	35	390	540	0.75	1	9 268		0.17	2.4		0.31	4.4	4/12/2023	ND (<5.0)	2.5	35		
	4/16 - 4/22	4/22/2023	3.9 3	.9 0.053	4/19/2023	e	5.8	ND (<0.150)	6.6	260	370	0.82	13	8 237		0.21	2.8		0.30	4.0	4/19/2023	ND (<5.0)	2.5	33		
	4/23 - 4/29	4/29/2023	ND (<1.6) 0	.8 0.011	4/26/2023	7	7.1	ND (<0.150)	6.9	290	940	0.82	ND(<10) 5	69		0.18	2.5		0.41	5.7	4/26/2023	ND (<5.0)	2.5	35		
	4/30 - 5/6	5/6/2023	ND (<1.6) 0	.8 0.011	5/3/2023	7	7.0	ND (<0.150)	4.4	360	280	1.1	1.	5 205		0.34	4.6		0.46	6.3	5/3/2023	ND (<5.0)	2.5	34		
	5/7 - 5/13	5/13/2023	ND (<1.6) 0	.8 0.011	5/10/2023	7	7.2	ND (<0.150)	20	280	5400	0.82	3	3 450		0.12	1.6		0.58	7.9	5/10/2023	ND (<5.0)	2.5	34		
	5/14 - 5/20	5/20/2023	ND (<1.6) 0	.8 0.011	5/17/2023	7	7.0	ND (<0.150)	4.8	240	570	0.77	14	4 206		0.17	2.5		0.34	5.0	5/17/2023	ND (<5.0)	2.5	37	5/17/2023	3,800
	5/21 - 5/27	5/27/2023	ND (<1.6) 0	.8 0.012	5/24/2023			ND (<0.150)													5/24/2023	ND (<5.0)	2.5	37		
	5/28 - 6/3	6/3/2023		.6 0.216	5/30/2023			ND (<0.150)													5/30/2023	ND (<5.0)	2.5	34		

Image: mark and part services and part of the part of											Treat	ed Effluent at Out	tfall 001													
Image: Problem         Particip	Cont	inuous	Daily Samples, co	mposited weekly								Weekly Grab Sa	amples									Weekly,	collected sep	arately		Quarterly
mbiol         link         biol         link         link <thlink< th="">         link         link         <th< th=""><th>Flov</th><th>v Rate</th><th>Perchl</th><th>lorate</th><th></th><th>F</th><th>рН</th><th></th><th>Total Chromium</th><th>Manganese</th><th>Total Iron</th><th>Ŭ Ŭ</th><th>•</th><th></th><th></th><th>Total Ammonia a</th><th>as N</th><th>Total Pl</th><th>hosphorus</th><th>s as P</th><th></th><th>BC</th><th><b>DD</b>5 (inhibited)</th><th>)</th><th></th><th>Dissolved</th></th<></thlink<>	Flov	v Rate	Perchl	lorate		F	рН		Total Chromium	Manganese	Total Iron	Ŭ Ŭ	•			Total Ammonia a	as N	Total Pl	hosphorus	s as P		BC	<b>DD</b> 5 (inhibited)	)		Dissolved
1.22         2.88         1.8         0.80         1.00         1.00		•					,	•	•	•		,	, .	Avg.										Avg.		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	2.52	2.88	18	0.38	1	6.5	9.0	10	100	5,000	10,000	20	135		/	20*			10*			25	40		1 1	8,000
1.0         1.7.8         1.1         0.015         6.8         7.1         NO (0.50)         NI (5.0)         3.1         2.0         3.0         4.2         3.00         4.2         7.2         NO (5.0)         NI (5.0)         3.5         3.00         1.3         2.0         3.6         4.2         5.0         NI (5.0)         NI (5.0)         3.3         3.00         1.3         2.0         2.0         2.5         4.6         NI (5.0)         NI (5.0)         3.3         3.00         3.00         1.0         1.1         2.0         2.5         4.6         NI (5.0)         NI (5.0)         3.00         3.00         3.00         3.00         2.0         2.5         4.6         NI (5.0)         NI (5.0)         3.00         3.00         3.00         2.0         2.5         4.6         NI (5.0)         NI (5.0)         3.00         3.00         3.00         2.0         2.5         3.00         <										-,				_/	-											-,
167         1.78         7.3         7.4 </td <td>1.70</td> <td>1.76</td> <td>ND (&lt;1.6)</td> <td>0.011</td> <td></td> <td>6.6</td> <td>6.9</td> <td>ND (&lt;0.150)</td> <td>26</td> <td>390</td> <td>1,100</td> <td>0.96</td> <td>13</td> <td>190</td> <td></td> <td>1.9</td> <td></td> <td></td> <td>5.1</td> <td></td> <td></td> <td>ND (&lt;5.0)</td> <td>ND (&lt;5.0)</td> <td>36</td> <td></td> <td></td>	1.70	1.76	ND (<1.6)	0.011		6.6	6.9	ND (<0.150)	26	390	1,100	0.96	13	190		1.9			5.1			ND (<5.0)	ND (<5.0)	36		
1.5         1.6         0.021         5.8         7.1         ND (c0.150)         33         200         940         0.62         1.5         2.0         2.5         MD (c0.50)         MD (c0.50)         31         200         5.00         1.0         2.0         5.00         1.0         2.0         2.0         5.00         1.0         2.0         7	1.69	1.75	1.1	0.015		6.8	7.1	ND (<0.150)	41	340	1,300	1.3	22	310		4.2			7.2			ND (<5.0)	ND (<5.0)	35		3,900
1.68         1.79         3.8         0.057         7.0         7.2         ND (d) 1501         20         3.60         1.11         21         2.87         2.9         6.4         ND (c) 10         3.60         3.00           Dally foreb         Sample Date         bit/day         Ibs/day         mg/L         Ibs/day         mg/L         Ibs/day         mg/L         Ibs/day         Sample Date         MD (c) 5.0         3.5         Ibs/day         Sample Date         Ibs/day         Sample Date         Ibs/day         Sample Date         MD (c) 5.0         3.5         Ibs/day         Sample Date         Ibs/day         Sample Date         MD (c) 5.0         3.5         Ibs/								· · ·			1,100												· /	35		
List         List <thlist< th="">         List         List         <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>· · · ·</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>· · ·</td><td>· /</td><td></td><td></td><td>3.800</td></th<></thlist<>								· · · ·														· · ·	· /			3.800
Sample Date         Sample Date         UPU         BVD         Sample Date         S	1.68	1.79	3.8	0.052		7.0	7.2	ND (<0.150)	20	360	5,400	1.1	21	287		2.9			6.4			ND (<5.0)	ND (<5.0)	35		-,
Sample Date         Sample Date         UPU         BVD         Sample Date         S	Daily Crah	Composito			1																1				1	
11/1       11/1	-	•	μg/I	L lbs/day	Sample Date	S	.U.	μg/L	μg/L	μg/L	μg/L	mg/L	mg/L	lbs/day	,	mg/L	lbs/day	mg/I	L	lbs/day	Sample Date	mg	g/L	lbs/day	Sample Date	mg/L
1/15       1/12	1/1 - 1/7	1/7/2023	ND (<1.6) 0.8	0.011	1/4/2023	e	5.6	ND (<0.150)	10	340	830	0.87	ND(<10) 5	70		0.090	1.3		0.43	6.0	1/4/2023	ND (<5.0)	2.5	35		
1/22-1/28       1/28/2023       N0 (1.6)       0.8       0.012       1/25/2023       6.9       N0 (0.150)       2.6       3.00       -       0.14       3.5       -       0.31       4.5       1/25/2023       N0 (5.0)       2.5       3.6       -       1.11      <	1/8 - 1/14					e	5.8	ND (<0.150)					10	) 142		0.044			0.30	4.3		ND (<5.0)				
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$													19	275						5.8						
2/12 - 2/11       2/1/2023       ND (-1.6)       0.8       0.011       2/18/2023       6.8       ND (-0.150)       4.1       290       1100       0.87        2/13       3/2        0.41       4.5       2/8/2023       ND (-5.0)       2.5       36       36         2/12 - 2/18       2/18/2023       2.0       0.027       2/15/2023       ND (-5.0)       2.5       36       ND (-5.0)       2.5       2.5       2.5       2.5       2.5       2.5       2.5       2.5       2.5       2.5       2.5       2.5       2.5       2.5       2.5       2.5       2.2       2.2       0.69       9.6       -       0.49       6.9       2.1       2.4       2.4       3.4       -       0.49       6.9       2.1       2.4       3.4       0.69       9.6       -       0.49       7.1       3.11/20.3       ND (-5.0)       2.5       3.5       2.2       3.90       3.11       3.11       2.9       0.1       1.4       1.6       0.49       6.0       1.3       -       2.2       2.8       -       0.33       4.3       -       0.40       5.2       3.15/20.3       ND (-5.0)       2.5       3.5       3.5       3.5					- · · ·			· · · · ·						277								· · ·				
2/12 - 2/18       2/18/2023       2.0       0.07       2/15/2023       7.0       ND (<0.150)       3.8       280       970       0.75        20       282        0.15       2.1        0.49       6.9       2/15/2023       ND (<5.0)       2.5       35       2/28       35       2/29/2023       ND (<1.6)       0.8       0.011       2/22/2023       ND (<1.6)       0.8       0.011       2/22/2023       ND (<1.6)       0.8       0.011       3/1/2023       7.1       ND (<0.150)       9.5       300       620       1.0        1.4       196        0.23       3.2        0.30       4.2       3/8/203       ND (<5.0)       2.5       35       2/8/203       3/9																				4.5						
2/19 - 2/25       2/25/2023       ND (<1.6)       0.8       0.011       2/22/2023       7.0       ND (<0.150)       25       20       130       1.3        24       335        0.69       9.6        0.91       1.7.       2/22/203       ND (<5.0)       2.5       35       2/28/2023       3.900         2/26 - 3/4       3/4/2023       ND (<1.6)													—													
2/26-3/4       3/4/2023       ND (4.6)       0.8       0.012       3/1/2023       7.2       ND (<0.150)       13       320       1100       0.22        12       174        0.20       2.9        0.49       7.1       3/1/2023       ND (<5.0)       2.5       36         3/5-3/11       3/11/2023       ND (<1.6)													20	) 282						6.9						
3/5 - 3/11       3/11/2023       ND (<1.6)       0.8       0.011       3/8/2023       7.1       ND (<0.150)       9.5       300       620       1.0       -       1.4       196       -       0.23       3.2       -       0.30       4.2       3/8/203       ND (<5.0)       2.5       35         3/12 - 2/18       3/18/203       ND (<1.6)       0.8       0.011       3/15/2023       7.2       ND (<0.150)       11       290       860       1.3       -       22       284       -       0.33       4.3       -       0.40       5.2       3/15/203       ND (<5.0)       2.5       35         3/19 - 3/25       3/25/203       ND (<1.6)       0.8       0.011       3/22/2023       7.1       ND (<0.150)       5.3       240       7.0       0.1       -       21       298       -       0.33       4.3       -       0.43       4.7       3/22/203       ND (<5.0)       2.5       35       36         3/12 - 2/1       4/14/2023       8.4       8.4       0.10       4/5/2023       ND (<0.150)       6.8       200       1.1       -       12       268       -       0.16       2.2       -       0.31       4.4       4/12/203								· · ·					24	4 335						12.7		· · ·			2/28/2023	3,900
3/12 - 3/18       3/18/2023       ND (<1.6)       0.8       0.011       3/15/2023       7.2       ND (<0.150)       11       290       860       1.3        22       284        0.33       4.3        0.40       5.2       3/15/2023       ND (<5.0)       2.5       32         3/19 - 3/25       3/25/2023       ND (<1.6)       0.8       0.011       3/12/2023       7.1       ND (<0.150)       5.3       240       7.0       0.71        21       298        0.18       2.6        0.33       4.7       3/22/2023       ND (<5.0)       2.5       35         3/26 - 4/1       4/1/2023       8.4       8.4       0.101       4/5/2023       ND (<0.150)       8.8       260       6.20       1.1        29       4.3        0.16       2.2        0.33       4.4       4/12/2023       ND (<0.50)       2.5       35       36       37       39       390       540       0.75        19       268        0.16       2.2        0.31       4.4       4/12/2023       ND (<5.0)       2.5       35       35         4/16 - 4/2       4/25/2023 <td></td> <td>/.1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>																				/.1						
3/19 - 3/25       3/25/2023       ND (<1.6)       0.8       0.011       3/22/2023       7.1       ND (<0.150)       5.3       240       710       0.71        21       298        0.18       2.6        0.33       4.7       3/22/2023       ND (<5.0)       2.5       35       35         3/26 - 4/1       4/1/2023       8.4       8.4       0.120       3/29/2023       7.4       ND (<0.150)**       4.8       260       620       1.1        29       413        0.35       5.0        0.49       7.0       3/29/2023       ND (<5.0)       2.5       36        1        29       413        0.35       5.0        0.49       7.0       3/29/2023       ND (<5.0)       2.5       36        1        0.31       4.1        0.31       4.1       4/2       1        1       0.10       0.21       2.8        0.31       4.4       4/2/2023       ND (<5.0)       2.5       35       35       35       390       540       0.7        0.16       2.2        0.31       4.4       4/2/2023 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>													-													
3/26 - 4/1       4/1/2023       8.4       8.4       0.120       3/29/2023       7.4       ND (<0.150)**       4.8       260       620       1.1        29       413        0.35       5.0        0.49       7.0       3/29/203       ND (<5.0)       2.5       36       M       M         4/2 - 4/8       4/8/203       ND (<1.6)       0.8       0.011       4/5/2023       6.8       ND (<0.150)       35       300       260       210       0.79        16       223        0.16       2.2        0.31       4.4       4/12/203       ND (<5.0)       2.5       35         4/9 - 4/15       4/15/203       ND (<1.6)       0.8       0.011       4/12/2023       7.0       ND (<0.150)       35       390       540       0.75        19       268        0.17       2.4        0.31       4.4       4/12/2023       ND (<5.0)       2.5       35         4/16 - 4/2       4/22/2023       3.9       3.9       3.9       0.53       1.0       0.17       2.4        0.13       2.4       0.3       4.4       4/12/2023       ND (<5.0       2.5       35													24				4.3			5.2						
4/2 - 4/8       4/8/2023       ND (<1.6)       0.8       0.011       4/5/2023       6.8       ND (<0.150)       0.87       260       210       0.79        16       223        0.16       2.2        0.32       4.5       4/5/2023       ND (<5.0)       2.5       35       35       390       540       0.75        19       268        0.17       2.4        0.31       4.4       4/12/2023       ND (<5.0)       2.5       35       35       390       540       0.75        19       268        0.17       2.4        0.31       4.4       4/12/2023       ND (<5.0)       2.5       35         4/16 - 4/22       4/22/2023       3.9       3.9       0.053       4/19/2023       6.8       ND (<0.150)       6.6       260       370       0.82        18       237        0.11       2.8        0.30       4.0       4/19/2023       ND (<5.0)       2.5       33         4/23 - 4/29       4/29/203       ND (<1.6)       0.8       0.011       5/3/2023       7.0       ND (<0.150)       4.4       300       2.6        0.18																	2.b			4./				35		
4/9 - 4/15       4/15/2023       ND (<1.6)       0.8       0.011       4/12/2023       7.0       ND (<0.150)       35       390       540       0.75        19       2.68        0.17       2.4        0.31       4.4       4/12/203       ND (<5.0)       2.5       35       390       540       0.75        19       2.68        0.17       2.4        0.31       4.4       4/12/203       ND (<5.0)       2.5       35       390       540       0.75        19       2.68        0.17       2.4        0.31       4.4       4/12/203       ND (<5.0)       2.5       35       390       540       0.75        18       237        0.21       2.8        0.30       4.0       4/19/203       ND (<5.0)       2.5       33       300       540       0.82        0.18       2.5        0.41       5.7       4/26/203       ND (<5.0)       2.5       33       30       50       69        0.18       2.5        0.41       5.7       4/26/203       ND (<5.0)       2.5       33       33       50       50						_														7.0					<u> </u>	
4/16 - 4/22       4/22/2023       3.9       3.9       0.053       4/19/2023       6.8       ND (<0.150)       6.6       260       370       0.82        18       237        0.21       2.8        0.30       4.0       4/19/203       ND (<5.0)       2.5       33       0       4.5       33       4.5        0.13       2.8        0.14       5.7       4/26/203       ND (<5.0)       2.5       33       0       4.6        0.14       5.7       4/26/203       ND (<5.0)       2.5       33       0       4.6        0.14       5.7       4/26/203       ND (<5.0)       2.5       33       0       4.6        0.14       5.7       4/26/203       ND (<5.0)       2.5       33       4.6        0.14       5.7       4/26/203       ND (<5.0)       2.5       33       4.6        0.14       4.6        0.44       4.6        0.44       4.6        0.44       4.6        0.44       4.6        0.44       4.6        0.44       4.6        0.44       4.6        0.44       4.6       <																										
4/23 - 4/29       VD (<1.6)       0.8       0.011       4/26/2023       7.1       ND (<0.150)       6.9       290       940       0.82       ND (<1.0)       5       69        0.18       2.5        0.41       5.7       4/26/203       ND (<5.0)       2.5       35       0       0         4/30 - 5/6       5/6/203       ND (<1.6)       0.8       0.011       5/3/203       7.0       ND (<0.150)       4.4       360       280       1.1        15       205        0.46       6.3       5/3/203       ND (<5.0)       2.5       34       34       360       280       1.1        15       205        0.46       6.3       5/3/203       ND (<5.0)       2.5       34       34       360       280       360       280        33       450        0.34       4.6        0.46       6.3       5/3/203       ND (<5.0)       2.5       34       34       360       280       280       34       360       280       5/3/203       16        0.34       4.6        0.46       6.3       5/3/203       ND (<5.0)       2.5       34       36       <																										
4/30 - 5/6       5/6/2023       ND (<1.6)       0.8       0.011       5/3/2023       7.0       ND (<0.150)       4.4       360       280       1.1        15       205        0.34       4.6        0.46       6.3       5/3/2023       ND (<5.0)       2.5       34         5/7 - 5/13       5/13/2023       ND (<1.6)													_													
5/7 - 5/13       5/13/2023       ND (<1.6)       0.8       0.011       5/10/2023       ND (<0.150)       2.7       ND (<0.150)       2.0								· · · ·																		
5/14 - 5/20       5/20/2023       ND (<1.6)       0.8       0.011       5/17/2023       ND (<5.0)       2.5        0.17       2.5        0.34       5.0       5/17/2023       ND (<5.0)       2.5       37       5/17/2023       3,800         5/21 - 5/27       5/27/2023       ND (<1.6)																	4.0									
5/21 - 5/27       5/27/2023       ND (<1.6)       0.8       0.012       5/24/2023         ND (<5.0)																	1.0 2 5								5/17/2022	3 800
						'			7.0	240	570	0.77	7-	+ 200		0.17	2.3	-	0.54	5.0					5/1//2025	3,000
	5/28 - 6/3	6/3/2023	16 16		5/24/2023			ND (<0.150) ND (<0.150)													5/24/2023	ND (<5.0) ND (<5.0)	2.5	37		

Note: Analytical responsibilities are performed by Eurofins Environment Testing (Eurofins) in Phoenix, Arizona, and hexavalent chromium is analyzed by Pace Analytical (Pace) in Las Vegas, Nevada, unless otherwise indicated. <sup>+</sup> Additional samples were collected this week.

NA = Not Available To Date

ND = Not Detected above laboratory reporting limit; concentration in adjacent cell to right is one-half the reporting limit (per Permit condition)

NS = Not Sampled or Not Analyzed

-- = Analyte detected; see column adjacent to right

\* Total phosphorus discharge limitation of 10 lbs/day applies between March 1 and October 31; Ammonia discharge limitation of 20 lbs/day applies between April 1 and September 30; no limits apply the rest of the year.

\*\*Pace Hexavalent Chromium sample taken 03/31/2023; original sample taken 03/29/2023 (L1599378) went over hold time and needed resampling. Last Updated: June 16, 2023

# WORKING TRACKING SPREADSHEET DRAFT - NOT TO BE SUBMITTED TO AGENCY

# **Attachment B**

Equipment Tracking Form

Sub- System	P&ID	Description	Status <sup>1</sup>	Checked	Criticality <sup>2</sup>	Notes
		Main Plant				
1		Equipment Seep Wells and Lift Station 1				
1.01		Seep Well Field, 9 wells	Running			
1.02		Lift Station 1 Lift Pump A			1	Replaced packing on gland seal.
1.03		Lift Station 1 Lift Pump B				
1.04		Area in and around Lift Station 1	Running			
2		Athens Road Wells and Lift Station 3				
2.01		Athens Road Well Field, 9 wells Lift Station 3 Lift Pump A			2	ART-9 Pump and motor replaced.
2.02		Lift Station 3 Lift Pump B			2	Mechanical seal replaced.
2.04		Area in and around Lift Station 3				
3		Lift Station 2 and Transmission Pipelines				
3.01		Influent Pipeline	In operation			
3.02		Effluent Pipeline	Running			
3.03		Lift Station 2 Lift Pump A	Running			
3.04		Lift Station 2 Lift Pump B	-			
3.05		Area in and around Lift Station 2	-		2	Installed new gear drivin valve actuators.
4		Interceptor Wells and Cr Treatment Plant	i turining		_	induited from goal arrive tarte dotation.
4.01		IWF Well Field, 30 wells	Running			
4.02		Ferrous Sulfate Feed System	0			
4.03		Polymer Feed System	Running			
4.04 4.05		Clarifier Filter Press	In operation		2	Poplaced both 2" feed values
4.05		Filter Press GWTP Effluent Tank	Running In operation	<u> </u>	2	Replaced both 3" feed valves.
4.00		Interceptor Booster Pump A	Running	1		
4.08		Interceptor Booster Pump B	Standby			
4.09		Area In And Around GWTP	Running			
5		Equalization Area and GW-11 Pond				
5.01	PID10A	Pond GW-11				
5.02 5.03	PID10A PID10A	Pond Water Pump - P101A Pond Water Pump - P101B				
5.03	PID10A	Equalization Tanks	-			
5.05	PID10A	Area in and Around EQ				
5.06	PID10A	Raw Water Feed Pump - P102A				
5.07	PID10A	Raw Water Feed Pump - P102B				
5.08	PID10A	F-101 Filters	Running			
5.09 5.10	PID10B PID10B	Carbon Absorber - LGAC 201A Carbon Absorber - LGAC 201B				
5.11	PID10B	Carbon Absorber - LGAC 2015 Carbon Absorber - LGAC 2010				
6		First Stage FBRs A, 1 & 2				
6.01	PID14	FBR A				EQUIPMENT OFFLINE
6.02	PID14	Separator Tank - 1401				EQUIPMENT OFFLINE
6.03	PID14	Media Return Pump - P 1401				
6.04 6.05	PID14 PID01A	P1401A P1401B				EQUIPMENT OFFLINE EQUIPMENT OFFLINE
6.06	PID01A		Running			
6.07	PID02A		Running			
6.08	PID01A	First Stage Separator Tank - T2011	Running			
6.09	PID01A	Media Return Pump - P2011				
6.10	PID01A	First Stage FBR Pump - P1011	Standby	ļ		
6.11 6.12	PID01A PID01A	First Stage FBR Pump - P1012 First Stage FRB Pump - P101A	Running			
6.12	PID0TA PID07A	FIRST Stage FRB Puttip - P101A FBR A pH Feed Puttip - P71A				
6.14	PID07A	FBR 1 pH Feed Pump - P711				
6.15	PID07A	FBR 2 pH Feed Pump - P712				
6.16	PID07A	FBR A Nutrient (Urea) Feed Pump - P72A				
6.17	PID07A	FBR 1 Nutrient (Urea) Feed Pump - P721		ļ		
6.18 6.19	PID07A PID15	FBR 2 Nutrient (Urea) Feed Pump - P722 FBR A Nutrient (Phos Acid) Feed Pump - P1520A				Equipment offline
6.20	PID15 PID15	FBR 1 Nutrient (Phos Acid) Feed Pump - P1520A FBR 1 Nutrient (Phos Acid) Feed Pump - P1521	Running Running	+		
6.21	PID15	FBR 2 Nutrient (Phos Acid) Feed Pump - P1522	Running	1		
6.22	PID07B	FBR A Electron Donor Assembly Pump - P73A	Running			
6.23	PID07B	FBR 1 Electron Donor Assembly Pump - P731	Running			
6.24	PID07B	FBR 2 Electron Donor Assembly Pump - P732	Running			
7	DIDATE	First Stage FBRs 3 & 4	Duration			
7.01	PID01B PID01B		Running Running	<u> </u>		
7.02	PID01B PID02B	FBR 4 First Stage Separator Tank - T2012			1	Replaced Actuator and positioner.
7.04	PID01B	Media Return Pump - P2012		t		
7.05	PID01B	First Stage FBR Pump - P1013				
7.06	PID01B	First Stage FRB Pump - P1014	Running			

Status Codes Running - Unit is in operation Standby - Spare or duplicate, not currently in operation Maintenance - Out of service for maintenance Off - Not currently needed for use, but can be placed in service 

systemPADConceptionSatureConceptionConception700PODIA<	Sub-	D. ID	Description	01	Chaoling	0.00.2	Natas
27.8         PRD25         PRD24 The First Part First Parts         Part of First Parts         Process           7.10         PRD26         First Part First Parts         Process         Process           7.10         PRD26         First Parts Parts Parts         Process         Process           7.11         PRD26         First Parts         Process         Process         Process           7.11         PRD26         First Parts         Process         Process         Process           7.12         PRD26         First Parts         Process         Process         Process           7.12         PRD26         First Parts         Process         Process         Process           7.12         PRD26         First Parts         Process         Process         Process           7.13         PRD26         First Parts         Process         Process <td< th=""><th>System</th><th>P&amp;ID</th><th>Description</th><th>Status<sup>1</sup></th><th>Checked</th><th>Criticality<sup>2</sup></th><th>Notes</th></td<>	System	P&ID	Description	Status <sup>1</sup>	Checked	Criticality <sup>2</sup>	Notes
12:00         PDD/0         PDD/1         PDD/1         PDD/1         PDD/1           17:10         PDD/2         PDD/1         PDD	7.07	PID01B	First Stage FBR Pump - P102A	Running			
7.10         PEOD2         FRF 3 Laterer (lang) feer Auge. P72         Note           7.11         PEOD3         FRF 3 Laterer (lang) feer Auge. P72         Note         Note           7.11         PEOD3         FRF 3 Diverse (lang lang) feer Auge. P723         Note         Note           7.14         PEOD         FRF 3 Diverse (lang lang) feer Auge. P723         Note         Note           7.14         PEOD         FRF 4 Deven Dava Augesity Program         Note         Note           8.01         PEOD3         FRF 4 Deven Dava Augesity Program         Note         Note           8.01         PEOD3         Second Sage FRF 3 Note         Note         Note           8.01         PEOD3         Second Sage FRF Auge. P201         Note         Note           8.01         PEOD3         Second Sage FRF Auge. P201         Note         Note           8.01         PEOD3         Second Sage FRF Auge. P201         Note         Note           8.01         PEOD3         Second Sage FRF Auge. P202         Note         Note           8.01         PEOD3         Second Sage FRF Auge. P202         Note         Note           8.01         PEOD3         Second Sage FRF Auge. P202         Note         Note           8.01							
7.10         PD07         PD07         PD07         PD07         PD01         PD01 <th< td=""><td></td><td></td><td></td><td>Running</td><td></td><td></td><td></td></th<>				Running			
21:20         PD15         PD173 Nutwint/Prox Acid Peed Anue - 79:203         Puncing           21:4         PD10         PD13 Advance/Prox Acid Peed Anue - 79:203         Puncing           21:4         PD10         PD13 Advance/Prox Acid Peed Anue - 79:203         Puncing         Puncing           21:5         PD100         PD13 Advance/Prox Acid Peed Anue - 79:203         Puncing         Puncing         Puncing           20:1         PD100         Second Sage Seguestor Faile - 79:101         Puncing         Puncing         Puncing         Puncing           20:0         PD100         Second Sage Seguestor Faile - 79:101         Puncing	-			0#	1		
71.31       PD19       TD19 A National (Plan Anne -P128)       Paraling         71.41       PD207       TD19 A National (Plan Assembly Plang, PP28)       Revision         71.51       PD208       TD201 Sector Sector Assembly Plang, PP28       Revision         71.51       PD208       TD201 Sector Sector Assembly Plang, PP28       Revision       PD201         71.51       PD203       Sector Sector Assembly Plang, PP28       Revision       PD204         71.51       PD204       Mathematic Revision Plang, PP201       Revision       PD204         71.51       Revision       PD204       Mathematic Revision Plang, PP201       PD204         71.51       Revision       Revision       PD204       Revision Plang, PP201       PD204         71.51       Revision       Revision       Revision       PD204       Revision Plang, PP201       PD204         71.51       Revision       Revision       Revision       Revision       PD204       Revision       Revision       PD204       Revision       Revision <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>							
2.1.4         PEDDS         PEDDS         PEDD TO         PEDD Secon Dawa Assembly Prog. PTX3         Numary         Numary           8         Secon Stage FBRS 5.6         PEDD Secon Dawa Assembly Prog. PTX3         Numary         Numary           8.01         PEDD Secon Stage FBRS 5.6         PEDD Secon Stage FBRS 7.6         PEDD Secon Stage FBRS 7.6         PEDD Secon Stage FBR 7.7         PEDD Sec				0			
21:5         PD078         TR0 4 Lawara Lours Assembly Pune-7724         Formage         Image         Image           8:0         PL003         Second Stage FRR 5.5.         PL004         Second Stage FRR 5.5.         PL004           8:0         PL003         Second Stage FRR 5.5.         PL004         Second Stage FRR 7.5.         Second Stage FRR 7.5.           8:0         PL003         Second Stage FRR 7.5.         Second Stage FRR 7.5.         Second Stage FRR 7.5.           8:00         PL003         Second Stage FRR 7.5.         Second Stage FRR 7.5.         Second Stage FRR 7.5.           8:00         PL004         Second Stage FRR 7.5.         Second Stage FRR 7.5.         Second Stage FRR 7.5.           8:01         PL004         FRR 5 Extern Door Assembly Pune-7730         General         Second Stage FRR 7.5.           8:01         PL003         Second Stage FRR 7.5.         Second Stage FRR 7.5.         Second Stage FRR 7.5.           8:01         PL003         Second Stage FRR 7.5.         Second Stage FRR 7.5.         Second Stage FRR 7.5.           8:01         PL003         Second Stage FRR 7.5.         Second Stage FRR 7.5.         Second Stage FRR 7.5.           8:01         PL003         Second Stage FRR 7.5.         Second Stage FRR 7.5.         Second Stage FRR 7.5.			, , ,	-			
B         Second Supp TBits 5.5.0         FBY 5         Numma         Main           807         P1003         Second Supp TBits 5.6.0         FBY 5         Numma         FBY 5           807         P1003         Second Supp TBits 7.6.0         Numma         FBY 5         Numma         FBY 5           807         P1003         Second Supp TBit PropP1071         Numma         FBY 5         FBY 7				Ŭ			
8:00         PID03A         Moning         Moning           8:01         PID03A         Model Return Rung, F3711         Running           8:04         PID03A         Model Return Rung, F3711         Running           8:06         PID03A         Second Singer Return Rung, F3711         Running           8:06         PID03A         Second Singer Return Rung, F3701         Running           8:06         PID03A         Second Singer Return Rung, F3701         Running           8:06         PID07A         Return Rung, F3701         Running         Image: Rung Rung, Rung, Rung           8:00         PID07A         Ret B Alteriou (Rung, Peder Rung, -P772)         Off         Image: Rung Rung, Rung, Rung         Image: Rung Rung, Rung           8:11         PID07A         Ret B Alteriou (Rung, Peder Rung, -P732)         Running         Image: Rung Rung, Rung         Image: Rung Rung, Rung           8:12         PID07B         Ret B Alteriou (Rung, Peder Rung, P732)         Running         Image: Rung Rung, Rung         Image: Rung Rung, Rung Rung         Image: Rung Rung, Rung         Image: Rung Rung, Rung         Image: Rung Rung, Rung         Image: Rung Rung, Rung, Rung Rung, Rung Rung, Rung Rung, Rung, Rung Rung,	8						
Biolog         Plotocic         Securd Stage Stage And Tak - 12011         Rowing         Image State S	8.01	PID03A	FBR 5	Running			
BLDDA         Methic fraum Prop. P2017         Furning         Image: Second Stage TRP Prop. P2016         Standy           8.00         PIDDAA         Second Stage TRP Prop. P2016         Standy         Image: Second Stage TRP Prop. P2016         Image: Second Stage TRP Prop. P2017         Image: Second Stage TRP P				ÿ			
6160         PD00A         Second Stage FBF Purp. P3015         Running         Image: Control Stage FBF Purp. P3015           600         PD00A         Second Stage FBF Purp. P3015         Running         Image: Control Stage FBF Purp. P3015         Image: Control Stage FBF Purp. P3016         Image: Control Stage FBF Purp. P3016							
64.00         PID0A         Second Stage FRP Purp. P2014         Sandty         Image: Constraint of the Constraint							
64.07         PIDDA         Stream Stage FRIP Page P201A         Faming         Image P201A           6.08         PIDDA         FRIP 6 pH Feed Num - P71G         GH         Image P201A			÷ ,	-			
800         PODA         FIRS 5 MF Fasd Fung-FYTS         Off         Mark           800         PODA         FIRS 5 Minimul (Man) Fasd Fung-FYTS         Off         Mark           811         PODA         FIRS 6 Minimul (Man) Fasd Fung-FYTS         Off         Mark           813         PODA         FIRS 6 Minimul (Man) Fasd Fung-FYTS         Running         Mark           813         PODA         FIRS 6 Structor Durar Assembly Pung-FYTS         Running         Mark           814         PODA         FIRS 6 Structor Durar Assembly Pung-FYTS         Running         Mark           900         FIRS 6 Structor Durar Assembly Pung-FYTS         Running         Mark         Mark           901         PODA         Second Stage FIRF Pung-FYTD         Running         Mark         Mark           904         PODA         Second Stage FIRF Pung-FYTD         Running         Mark         Mark           905         PODA         RER By HTese Pung-FYTD         Running         Mark         Mark           906         PODA         RER By HTese Pung-FYTD         Running         Mark         Mark           907         PODA         RER By HTese Pung-FYTD         Running         Mark         Mark           907         PODA			•				
6.60         PDD/A         FBR 6 JH Head Fung. P710         Off           8.1         PDD/A         FBR 6 Materiul (Daw) Reed Pung. P720         Off           8.11         PDD/A         FBR 6 Materiul (Daw) Reed Pung. P720         Off           8.12         PDD/B         FBR 6 Sectors Durar Assembly Pung. P728         Running         Image: Comparison of the Compariso							
81         PDD/A         FBR 5 Mutania (Union) Ford Arms - F220         0ft         PDD           81.71         PDD/B         FBR 5 Sector Donor Assembly Progr - F238         Running         PDD           81.81         PDD/B         FBR 6 Sector Donor Assembly Progr - F238         Running         PDD           90         Second Stage FBR 7.8.5         Running         PDD         PDD         RUNNing         PDD           90.91         PDD38         FBR 7.8.5         Running         PDD         RUNNing         PDD           90.91         PDD38         FBR 7.8.5         Running         PDD         RUNNing         PDD           90.91         PDD38         Second Stage FBR 7.49, -2010         Running         PDD         RUNNing         PDD           90.91         PDD38         Second Stage FBR 7.49, -2010         Running         PDD         RUNNing         PDD           90.91         PDD38         Second Stage FBR 7.49, -2010         Running         PDD         PDD         RUNNing         PDD           90.91         PDD38         Second Stage FBR 7.49, -7010         Running         PDD         RUNNing         PDD           90.91         PDD38         Reading PBR 7.710         RUNNing         PDD         RUNNi							
B.11         PDD/A         FBR 6 Number (Una) Feed Pure -P220         Off           B.12         PDD/B         FBR 6 Sectors Dame Assembly Pure -P33         Running         Image: Construction of the sector Dame Assembly Pure -P33           B.01         PDD/B         FBR 7 8 Sectors Dame Assembly Pure -P33         Running         Image: Construction Dame Assembly Pure -P33           B.01         PDD/B         FBR 7 8 Sectors Dame Assembly Pure -P33         Running         Image: Construction Dame Assembly Pure -P337           B.02         PDD/B         Second Stage FBR 7 8 - 50 Second Stage Sequent 7 nav: 7 N27         Running         Image: Construction Dame Assembly Pure -P337           B.03         PDD/B         Second Stage FBR Pure -P337         Running         Image: Construction Dame Assembly Pure -P337         Running         Image: Construction Dame Assembly Pure P373           B.04         PDD/B         FBR 7 Sectors Dame Assembly Pure -P337         Running         Image: Construction Dame Assembly Pure P373         Running         Image: Constru		-			t		
10.12         PDD76         FIRS 6 Electron Doord Assembly PurgP736 Running         Image: Constraint of the second Stage FIRS 7 & 8           13         PDD08         Electron Doord Stage FIRS 7 & 8         Image: Constraint of the second Stage FIRS 7 & 8           10         PDD08         FIRS 7 & 8         FIRS 6 Running         Image: Constraint of the second Stage Stage FIRS 7 & 78.77           10.0         PDD08         Second Stage Stage FIRE Nm. P2012 Running         Image: Constraint of the second Stage Stage FIRE Nm. P2012 Running         Image: Constraint of the second Stage FIRE Nm. P2012 Running           10.0         PDD08         Second Stage FIRE Nm. P2012 Running         Image: Constraint of the second Stage FIRE Nm. P2012 Running         Image: Constraint of the second Stage FIRE Nm. P2012 Running         Image: Constraint of the second Stage FIRE Nm. P2012 Running         Image: Constraint of the second Stage FIRE Nm. P2012 Running         Image: Constraint of the second Stage FIRE Nm. P2012 Running         Image: Constraint of the second Stage FIRE Nm. P2012 Running         Image: Constraint of the second Running         Image: Constraintof Running<							
8         PID/76         FBR 6 Electron Duor Assembly PurpP/36 Rurning         Image: Constraint of the second stage FBR 7 to an image of the second stage FBR 7 to an image of the second stage FBR 7 the second the second stage FBR 7 the second s					t	1	
907         PD038         FBR 7 Brunning         PD038           903         PD038         Second Stage Separator Tark - T3012         Running         PD038           904         PD038         Second Stage Separator Tark - T3012         Running         PD038           905         PD038         Second Stage FBR Pump - P3017         Running         PD038           906         PD038         Second Stage FBR Pump - P3017         Running         PD038           907         PD038         Second Stage FBR Pump - P3017         Running         PD038           908         PD07A         FBR 8 pH Feed Pump - P710         Gt         PD037           909         PD07A         FBR 7 Munition (Unsaj Feed Pump - P727         Gt         PD038           911         PD07A         FBR 8 Munition (Unsaj Feed Pump - P727         Gt         PD038           912         PD07B         FBR 7 Munition (Unsaj Feed Pump - P727         Gt         PD038         PD038         Running         PD038 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
902         PID38         Second Stage Spareter Tark - Tabil? Running	9		, , , , , , , , , , , , , , , , , , ,				
9.03         PD038         Second Stage Separator Tark - T2012         Running         Image: Constraint of the Stage PBR Party - 2912         Second Stage PBR Party - 2912         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running         Image: Constraint of the Stage PBR Party - 2913         Running <thimage: -="" 2913<="" constraint="" of="" party="" pbr="" stage="" th="" the=""></thimage:>							
99.04         PD038         Media Return Pump - P3017         Running         Image: P3017           90.05         PD038         Second Stage FBR Pump - P3017         Running         Image: P3017           90.07         PD038         Second Stage FBR Pump - P3020         Running         Image: P3017           90.07         PD038         Second Stage FBR Pump - P3020         Running         Image: P3017           90.07         FBR 7 BH Food Pump - P3020         Running         Image: P3017         Image: P3017           90.07         FBR 7 Duning (Lina) Food Pump - P720         Off         Image: P3017         Image: P3017           91.01         P10070         FBR 7 Electrin Donc Assembly Pump - P727         Running         Image: P3017         Image: P3017           91.02         P10078         FBR 7 Electrin Donc Assembly Pump - P727         Running         Image: P3017         Image: P3017           91.02         P10078         FBR 7 Electrin Donc Assembly Pump - P727         Running         Image: P3017         Image: P3017           91.02         P10078         Aration and DAF System         Aration Bio/Word P401         Replaced beits and realigned the motor.           91.02         Aration and DAF System         Aration Bio/Word P4017         Replaced beits and realigned the motor.           91.							
9005         PD008         Second Stage FBR Pump - P3016         Nummag           9007         PD008         Second Stage FBR Pump - P3016         Nummag           9007         PD008         Second Stage FBR Pump - P3016         Nummag           9009         PD07A         FBR P DH Feed Pump - P710         Nummag           9009         PD07A         FBR 7 DH Feed Pump - P710         Nummag           9101         PD07A         FBR 7 DH Feed Pump - P721         Nummag           911         PD07A         FBR 7 DH Feed Pump - P722         Nummag           912         PD07B         FBR 7 Electron Donor Assembly Pump - P733         Running           913         PD07B         FBR 8 DH Feed Pump - P722         Nummag         Nummag           914         PD07B         FBR 8 Electron Donor Assembly Pump - P733         Running         Nummag           910         Aeration and DAF System         Aeration Simme - F801         Nummag         Nummag           9102         PD05         Aeration Simme - F801         Nummag         Nummag           9104         Bo filter Simme - F801         Nummag         Nummag         Nummag           9105         PD05         Nummag - F802         Nummag         Nummag           9106			÷ .	-			
9.06         PD03B         Second Stage FBP Pump - P304 Bunning         Image           9.07         PD03B         Second Stage FBP Pump - P304 Bunning         Image           9.08         PD07A         FBB 7 BH Feed Pump - P712 Oft         Image           9.09         PD07A         FBB 7 BH Feed Pump - P712 Oft         Image           9.01         PD07A         FBB 7 A Nument (Usea) Feed Pump - P722 Oft         Image           9.11         PD07A         FBB 7 Electron David Assembly Pump - P732 Running         Image           9.12         PD07B         FBR 7 Electron David Assembly Pump - P732 Running         Image           9.14         PD07B         FBR 7 Electron David Assembly Pump - P732 Running         Image           9.14         PD07B         FBR 7 Electron David Assembly Pump - P732 Running         Image           9.10         Aration and DAF System         Aration Bulow FBR 7 Image         Image           9.104         Aration Bulow FBR 7 Image         Image         Image           10.04         PD04         Aration Bulow FBR 7 Image         Image           10.05         PD04         Bulo Image         Image           10.06         PD04         Bulo Image         Image           10.06         PD04         Bulo Image <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>							
9907         PID08         Second Stage PBR Pump - P704 Running         Image: Provide Part Part Part Part Part Part Part Part			ş 1	Ŭ			
9.00         PID07A         FBR 7 If Head Pump -P717 Ort         Image: Provide in the provide in theprovide in theprovide in the provide in the provide in theprovide			÷ ,	Ŭ			
990         PID07A         FBR 8 lpH Feed Purp - F73 [cft         Image: FBR 7 Linker (Use) Seed Purp - F73 [cft           911         PID07A         FBR 7 Linkerto (Use) Seed Purp - F73 [cft         Image: FBR 7 Electron Donor Assembly Purp - F73 [cft           913         PID07B         FBR 8 Electron Donor Assembly Purp - F73 [cft         Image: FBR 8 Electron Donor Assembly Purp - F73 [cft           903         PID07A         Arration and DAF System         Image: FBR 8 Electron Donor Assembly Purp - F73 [cft           904         Arration and DAF System         Image: FBR 8 Electron Donor Assembly Purp - F73 [cft         Image: FBR 8 Electron Donor Assembly Purp - F73 [cft           905         PID04         Arration and DAF System         Image: FBR 8 Electron Donor Assembly Purp - F73 [cft           9063         PID04         Arration Runing         1         Replaced belts and realigned the motor.           9033         PID04         Mutrient Surp - P401 [Runing         1         Replaced belts and realigned the motor.           9040         Bio filter Surp Purp - F73 [Runing         1         1         1           9050         DAF Purps Purp - F73 [Runing         1         1           9064         Bio filter Surp Purp - F73 [Runing         1         1           9065         DAF Purp Purp - F73 [Runing         1         1 <t< td=""><td></td><td></td><td>•</td><td></td><td></td><td></td><td></td></t<>			•				
9.10         PID07A         FBB 7 Numeries (Ume) Feed Pump - P723 (Cit         Image: Cite Pine Pine Pine Pine Pine Pine Pine Pin							
911         PDD7A         FBB 8 Nutrient (Uma) Feed Purge - P728 (Dt.         Image: Comparison of Assembly Purge - P728 (Dt.           9.13         PID07B         FBR 8 Electron Doord Assembly Purge - P728 (Nnning)         Image: Comparison of Assembly Purge - P728 (Nnning)         Image: Comparison of Assembly Purge - P728 (Nnning)           10         Aration and DAF System         Image: Comparison of Assembly Purge - P728 (Nnning)         Image: Comparison of Assembly Purge - P728 (Nnning)           10.01         PID04         Aration and DAF System         Image: Comparison of Assembly Purge - P728 (Nnning)         Image: Comparison of Assembly Purge - P728 (Nnning)           10.02         PID04         Aration Slower - P401 Running         Image: Comparison of Assembly Purge - P401 Running         Image: Comparison of Assembly Purge - P401 Running           10.02         PID04         Bio filter Sump         Image: Comparison of Assembly Purge - P401 Running         Image: Comparison of Assemb							
9.13         PIDO78         FBR 8 Electron Donor Assembly Purip - P738         Running         Image: Constraint of the second secon							
10         Aeration and DAF System         1         Image: Constraint of the image: Constraint	9.12	PID07B	FBR 7 Electron Donor Assembly Pump - P737	Running			
110.01         PID04         Aeration Tank         In peration         Internation           10.02         PID04         Aeration Blower - B401         Ruming         1         Replaced belts and realigned the motor.           10.03         PID04         Nutrient Solution         Internation         Internation           10.04         PID04         Nutrient Solution         Internation         Internation           10.05         PID04         Bio filter Sump         Internation         Internation           10.06         PID04         Bio filter Sump         Internation         Internation           10.06         PID04         Bio filter Sump         Internation         Internation           10.07         PID04         Bio filter Sump         Pump<	9.13	PID07B	FBR 8 Electron Donor Assembly Pump - P738	Running			
1002       PID04       Aeration Blower - B401       Runing       1       Replaced bells and realigned the motor.         10.03       PID04       Bio filter       In operation       In operation       In operation         10.04       PID04       Nutrient Solution       Runing       In operation       In operation         10.06       PID04       Bio filter Sump       In operation       In operation       In operation         10.06       PID04       Bio filter Sump Pump - P402A       Standby       In operation							
10.03         PIDA         Bo filter         In operation           10.04         PIDA         Nutrient Solution         Running							
10.04         PID04         Nutrient Solution         Running         Image: Constraint of the solution of the solu				Ŭ		1	Replaced belts and realigned the motor.
10.05         PID04         Bio filter Sump           10.06         PID04         Nutrient Pump - P401         Running           10.07         PID04         Bio filter Sump Pump - P402A         Standby           10.09         PID04         Bio filter Sump Pump - P402A         Standby           10.00         PID04         Bio filter Sump Pump - P402A         Standby           10.01         PID05         DAF Pressure Tanks         In operation           10.11         PID05         DAF Pressure Pump - P501         Running         3         DAF was taken down cleaned repaired and inspected.           10.12         PID05         DAF Pressure Pump - P501         Running         1           10.13         PID05         DAF Pressure Pump - P551         Running         1           10.14         PID05         DAF Pressure Pump - P551         Running         1           10.15         PID05         DAF Pressure Pump - P552         Running         1           10.16         PID05         Skimmer Drive         Running         1           11.01         PID06         Effluent Pump - P601         In operation         1           11.02         PID06         Effluent Pump - P602         1           11.03 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>							
10.06         PID04         Nutrient Pump - P407         Running         Image: Constraint of the state of the stat				Running			
10.07         PID04         Bio filter Sump Pump - P402A         Standby           10.09         PID04         Bio filter Blower         Running           10.00         PID05         DAF Pressure Tarks         Noperation           10.11         PID05         DAF Vessel - D501         Running         3         DAF was taken down cleaned repaired and inspected.           10.12         PID05         DAF Pressure Pump - P501         Running         3         DAF was taken down cleaned repaired and inspected.           10.13         PID05         DAF Pressure Pump - P501         Running         4           10.14         PID05         DAF Pressure Pump - P501         Running         4           10.15         PID05         DAF Pressure Pump - P501         Running         4           10.16         PID05         DAF Pressure Pump - P501         Running         4           10.16         PID05         Serew Conveyer Drive         Standby         4           11.01         PuD06         Effluent Tark 601         noperation         4           11.02         PID06         Effluent Pump - P602         4         4           12.01         PID17         Sand Filter         3         Replaced the airlift on #3 and #4. <t< td=""><td></td><td></td><td></td><td>Running</td><td></td><td></td><td></td></t<>				Running			
10.09         PID04         Bio filter Blower         Running           10.10         PID05         DAF Pressure Tarks         In operation           10.11         PID05         DAF Vessel - D501         Running         3         DAF was taken down cleaned repaired and inspected.           10.12         PID05         DAF Pressure Pump - P501         Running         3         DAF was taken down cleaned repaired and inspected.           10.13         PID05         DAF Pressure Pump - P501         Running         4           10.14         PID05         DAF Pressure Pump - P551         Running         4           10.15         PID05         DAF Pressure Pump - P551         Running         4           10.16         PID05         DAF Pressure Pump - P551         Running         4           10.16         PID05         Screw Conveyer Drive         Standby         4           10.17         PID05         Screw Conveyer Drive         Standby         4           11.0         PID06         Effluent Tank 601         In operation         4           11.02         PID06         Effluent Pump - P602         4         4           12.02         PID17         Filter Reject Tark         In operation         4 <td< td=""><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td></td<>				-			
10.10         PID05         DAF Pressure Tanks         In operation         A           10.11         PID05         DAF Vessel - DS01         Running         3         DAF was taken down cleaned repaired and inspected.           10.12         PID05         DAF Pressure Tump - PS01         Running         4           10.13         PID05         DAF Float Pump - PS01         Running         4           10.14         PID05         DAF Pressure Pump - PS51         Running         4           10.15         PID05         DAF Pressure Pump - PS51         Running         4           10.16         PID05         DAF Pressure Pump - PS51         Running         4           10.16         PID05         DAF Pressure Pump - PS52         Running         4           10.17         PID05         Screw Conveyer Drive         Standby         4           10.17         PID06         Effluent Pump - P601         Running         4           11.02         PID06         Effluent Pump - P601         4         4           11.02         PID06         Effluent Pump - P601         4         4           11.02         PID06         Effluent Pump - P601         4         4           11.02         PID17							
10.11         PID05         DAF Vessel - D501         Running         3         DAF was taken down cleaned repaired and inspected.           10.12         PID05         DAF Pressure Pump - P501         Running             10.13         PID05         DAF Pressure Pump - P502         Running             10.14         PID05         DAF Vessel - D551         Running             10.15         PID05         DAF Pressure Pump - P552         Running             10.16         PID05         Serew Conveyer Drive         Standby             10.17         PID05         Serew Conveyer Drive         Standby             10.17         PID05         Serew Conveyer Drive         Running             10.18         PID05         Serew Conveyer Drive         Running             11.01         PID06         Effluent Tank 601         noperation             11.02         PID06         Effluent Pump - P601         Running              12.01         PID17         Filter Reject Tank         noperation <t< td=""><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td></t<>					1		
10.12       PID05       DAF Pressure Pump - P501       Running       Image: Constraint of the constener of the constraint of the constraint of					İ	3	DAF was taken down cleaned repaired and inspected.
10.14PID05DAF Vessel - D551RunningImage10.15PID05DAF Pressure Pump - P551RunningImage10.16PID05DAF Float Pump - P552RunningImage10.17PID05Screw Conveyer DriveStandbyImage10.18PID05Screw Conveyer DriveRunningImage10.19Pumping System (Old Effluent)ImageImage11.10PID06Effluent Pump - P601ImageImage11.10PID06Effluent Pump - P601ImageImage11.10PID06Effluent Pump - P601ImageImage11.10PID10Sand Filter SystemImageImage11.10PID10Filter Reject Tank 601ImogerationImage11.10PID10Filter Reject TankImogerationImage11.10PID17Filter Reject TankImogerationImage11.20PID17Filter Reject TankImogerationImage11.20PID17Filter Reject Pump - P1018RunningImage11.20PID17Filter Reject Pump - P1018ImageImage11.20PID10ImageImageImage12.20PID17Filter Reject Pump - P1018ImageImage12.30PID17Filter Reject Pump - P1018ImageImage13.01PID100ImageImageImage13.02PID100ImageImageImage13.03PID100ImageImage	10.12	PID05		Running			
10.15       PID05       DAF Pressure Pump - P551       Runing       Image: Constraint of the second sec	10.13	PID05	DAF Float Pump - P502	Running			
10.16         PID05         DAF Float Pump - P552         Running         Image           10.17         PID05         Screw Conveyer Drive         Standby         Image							
10.17PID05Screw Conveyer Drive Skimmer Drive RunningStandby11Pumping System (Old Effluent)Running11.01PID06Effluent)11.02PID06Effluent Tank 601 (In operation)11.03PID06Effluent Pump - P60212Sand Filter System312.01PID17Sand Filter12.02PID17Filter Reject Tank (In operation)12.03PID17Filter Reject Tank (In operation)12.04PID17Filter Reject Pump - P1701B (Inter Reject Pump - P1701B) (Inter Reject Pump - P1302A)13.01PID10CUV Effluent Tank (Inter Reject Pump - P1302A) (Inter Reject Pump - P1302A)13.02PID10CEffluent Booster Pump - P1302A (Inter Reject Pump - P1302B) (Inter				-	ļ		
10.18       PID05       Skimmer Drive       Running         11       Pumping System (Old Effluent)       addition       addition         11.01       PID06       Effluent Tank 601       In operation         11.02       PID06       Effluent Pump - P601       Running       addition         11.02       PID06       Effluent Pump - P601       Running       addition         11.03       PID06       Effluent Pump - P602       addition       addition         12       Sand Filter System       addition       addition       addition         12.01       PID17       Filter Reject Tank       In operation       addition       addition       addition       addition         12.02       PID17       Filter Reject Pump - P1701A       Standby       addition       adi			,	Ŭ	ļ		
11Pumping System (Old Effluent)Image: Constraint of the section of the sectio							
11.01       PID06       Effluent I cank 601       In operation         11.02       PID06       Effluent Pump - P601       Running         11.03       PID06       Effluent Pump - P602       Image: Constraint of the constener of the constene constraint of the cons		PID05		Running			
11.02       PID06       Effluent Pump - P601       Running         11.03       PID06       Effluent Pump - P602       Image: Constraint of the second		PID06		In operation			
11.03       PID06       Effluent Pump - P602       Image: Constraint of the state of the s					1		
12       Sand Filter System       3       Replaced the airlift on #3 and #4.         12.01       PID17       Sand Filter       3       Replaced the airlift on #3 and #4.         12.02       PID17       Filter Reject Tank       In operation       3         12.03       PID17       Filter Reject Tank       In operation       4         12.04       PID17       Filter Reject Pump - P1701A       Standby       5         12.04       PID17       Filter Reject Pump - P1701B       Running       5         13       Effluent Tank and Pumping       5       5       5         13.01       PID10C       UV Effluent Tank       Running       5         13.02       PID10C       Effluent Booster Pump - P1302A       Running       5         13.03       PID10C       Effluent Booster Pump - P1302B       Standby       5         13.04       PID10C       Area Around Effluent and North D-1       Running       5         13.04       PID10C       Area Around Effluent and North D-1       Running       5         14.01       PID16       Sludge Storage Tank       In operation       5					t	1	
12.02       PID17       Filter Reject Tank       in operation         12.03       PID17       Filter Reject Pump - P1701A       Standby       Image: Standby         12.04       PID17       Filter Reject Pump - P1701B       Running       Image: Standby       Image: Standby         13       Effluent Tank and Pumping       Image: Standby       Image: Standby       Image: Standby       Image: Standby         13.01       PID10C       UV Effluent Tank       Running       Image: Standby							
12.03       PID17       Filter Reject Pump - P1701A       Standby       Image: Constraint of the stand provided in the stand provid	12.01	PID17				3	Replaced the airlift on #3 and #4.
12.04         PID17         Filter Reject Pump - P17018         Running           13         Effluent Tank and Pumping         UV         Munning         Image: Constraint of the second secon							
13     Effluent Tank and Pumping       13.01     PID10C     UV Effluent Tank       13.02     PID10C     Effluent Booster Pump - P1302A       13.03     PID10C     Effluent Booster Pump - P1302B       13.04     PID10C     Area Around Effluent and North D-1       14     Solids Collection and Pressing System     Image: Collection and Pressing System       14.01     PID16     Sludge Storage Tank			· · ·				
13.01     PID10C     UV Effluent Tank     Running       13.02     PID10C     Effluent Booster Pump - P1302A     Running       13.03     PID10C     Effluent Booster Pump - P1302B     Standby       13.04     PID10C     Area Around Effluent and North D-1     Running       14     Solids Collection and Pressing System     Image: Collection and Pressing System       14.01     PID16     Sludge Storage Tank     In operation		PID17		Running			
13.02       PID10C       Effluent Booster Pump - P1302A       Running         13.03       PID10C       Effluent Booster Pump - P1302B       Standby         13.04       PID10C       Area Around Effluent and North D-1       Running         14       Solids Collection and Pressing System       Image: Collection and Pressing System         14.01       PID16       Sludge Storage Tank       Image: Collection and Pressing System		DIRKAT		D			
13.03         PID10C         Effluent Booster Pump - P1302B         Standby           13.04         PID10C         Area Around Effluent and North D-1         Running           14         Solids Collection and Pressing System         Image: Collection and Pressing System         Image: Collection and Pressing System           14.01         PID16         Sludge Storage Tank         In operation         Image: Collection and Pressing System							
13.04     PID10C     Area Around Effluent and North D-1     Running       14     Solids Collection and Pressing System     Image: Collection and Pressing System       14.01     PID16     Sludge Storage Tank     In operation				0	<u> </u>		
14         Solids Collection and Pressing System           14.01         PID16         Sludge Storage Tank         In operation							
14.01 PID16 Sludge Storage Tank In operation		110100		. carning			
		PID16		In operation			
			• •		1		

System	P&ID	Description	Status <sup>1</sup>	Checked	Criticality <sup>2</sup>	Notes
14.03	PID16	Solids Cond. Tank	In operation			
14.04	PID09	Sludge Mixer	Running			
14.05	PID09	Filter Press Pump - P901	Running			
14.06	PID09	Filter Press Pump - P902				
14.07	PID09	West Press	Standby			
14.08	PID09	East Press	Running			
14.09	PID09	Filtrate Tank	In operation			
14.10	PID09	Filtrate Tank Effluent (recycle) Pump - P903	Running			
15		Chemical Systems Electron Donor System				
15.01	PID07B	Electron Donor Tank	In operation			
15.02	PID07B	Booster Pump P739A	Running			
15.03	PID07B	Booster Pump P739B	Standby			
17	PID07C	Micro Nutrient System	In operation			
18	PID07C	Hydrogen Peroxide System	In operation			
19	PID07C	De-Foam System	In operation			
20	PID15	Nutrient (Phosphoric Acid) System (Tank only - pumps included in FBRs)	In operation			
21	PID07A	Nutrient (Urea) System (Tank only - pumps included in FBRs)	In operation			
22	PID07A	pH System (Tank and effluent pH feed pump only - other pumps included in FBRs)	In operation			
23	PID07C	Ferric Chloride	In operation			
24	PID07B	Polymer Systems - DAF	In operation			
25	PID09	Polymer System - Solids Dewatering (2 tanks, 2 centrifugal pumps, mixer, volumetric feeder)	In operation			
		Utility Systems				
26		Compressed Air System				
26.01						
	PID08	West Compressor				
26.02	PID08	East Compressor	Running			
26.02 26.03	PID08 PID08	East Compressor O2 Compressor	Running Running			
26.02 26.03 26.04	PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank	Running Running In operation			
26.02 26.03 26.04 26.05	PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer	Running Running In operation Running			
26.02 26.03 26.04 26.05 26.06	PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter	Running Running In operation Running In operation			
26.02 26.03 26.04 26.05 26.06 26.07	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter	Running Running In operation Running In operation In operation			
26.02 26.03 26.04 26.05 26.06 26.07 <b>27</b>	PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System	Running Running In operation Running In operation In operation In operation			
26.02 26.03 26.04 26.05 26.06 26.07 26.07 27 27 28	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System GWETS Plant Controls/ Siemens Controls	Running Running In operation Running In operation In operation In operation In operation			
26.02 26.03 26.04 26.05 26.06 26.07 <b>27</b>	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System GWETS Plant Controls/ Siemens Controls Well Control System/ Allen Bradley Controls	Running Running In operation Running In operation In operation In operation In operation In operation			
26.02 26.03 26.04 26.05 26.06 26.07 27 28 28 29	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System GWETS Plant Controls/ Siemens Controls Well Control System/ Allen Bradley Controls MCC FBR Pad	Running Running In operation In operation In operation In operation In operation In operation In operation			
26.02 26.03 26.04 26.05 26.06 26.07 27 28 29 30	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System GWETS Plant Controls/ Siemens Controls Well Control System/ Allen Bradley Controls	Running Running In operation In operation In operation In operation In operation In operation In operation			
26.02 26.03 26.04 26.05 26.06 26.07 27 28 29 30 30	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System GWETS Plant Controls/ Siemens Controls Well Control System/ Allen Bradley Controls MCC FBR Pad MCC FBR Pad	Running Running In operation Running In operation In operation In operation In operation In operation In operation In operation			
26.02 26.03 26.04 26.05 26.06 26.07 27 28 29 30 30	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System GWETS Plant Controls/ Siemens Controls Well Control System/ Allen Bradley Controls MCC FBR Pad MCC in D-1 MCC in EQ area	Running Running In operation Running In operation In operation In operation In operation In operation In operation In operation			
26.02 26.03 26.04 26.05 26.06 26.07 27 28 29 30 31 31 32	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System GWETS Plant Controls/ Siemens Controls Well Control System/ Allen Bradley Controls MCC FBR Pad MCC in D-1 MCC in CQ area Miscellaneous Systems	Running Running In operation Running In operation In operation In operation In operation In operation In operation In operation In operation			
26.02 26.03 26.04 26.05 26.06 26.07 27 28 29 30 31 31 32 33	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System GWETS Plant Controls/ Siemens Controls Well Control System/ Allen Bradley Controls MCC FBR Pad MCC in D-1 MCC in EQ area Miscellaneous Systems Operations Office/Network	Running Running In operation Running In operation In operation In operation In operation In operation In operation In operation In operation			
26.02 26.03 26.04 26.05 26.06 26.07 27 28 29 30 31 31 32 33 33	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System GWETS Plant Controls/Siemens Controls Well Control System/ Allen Bradley Controls Mell Control System/ Allen Bradley Controls MCC FBR Pad MCC in D-1 MCC in EQ area Miscellaneous Systems Operations Office/Network Laboratory Analyzers Security Systems	Running Running In operation Running In operation In operation			
26.02 26.03 26.04 26.05 26.06 26.07 27 28 29 30 31 31 32 33 33	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System GWETS Plant Controls/ Siemens Controls Well Control System/ Allen Bradley Controls MCC in D1 MCC in D1 MCC in D1 MCC in EQ area Miscellaneous Systems Operations Office/Network Laboratory Analyzers Security Systems Security Systems Media Return Pump Rebuild Kit	Running Running In operation Running In operation In operation			
26.02 26.03 26.04 26.05 26.06 26.07 27 28 29 30 31 31 32 33 33	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System GWETS Plant Controls/ Siemens Controls Well Control System/ Allen Bradley Controls MCC FBR Pad MCC in D-1 MCC in D-1 MCC in C parea Miscellaneous Systems Operations Office/Network Laboratory Analyzers Security Systems Shelf Spares Media Return Pump Rebuild Kti	Running Running In operation Running In operation In operation			
26.02 26.03 26.04 26.05 26.06 26.07 27 28 29 30 31 31 32 33 33	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressor Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System GWETS Plant Controls/ Siemens Controls Well Control System/ Allen Bradley Controls Well Control System/ Allen Bradley Controls MCC FBR Pad MCC in D-1 MCC in EQ area Miscellaneous Systems Operations Office/Network Laboratory Analyzers Security Systems Shelf Spares Media Return Pump Rebuild Kit pH Feed Pump Nutrient Feed Pump	Running Running In operation Running In operation In stock In stock			
26.02 26.03 26.04 26.05 26.06 26.07 27 28 29 30 31 31 32 33 33	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System GWETS Plant Controls/Siemens Controls Well Control System/ Allen Bradley Controls Well Control System/ Allen Bradley Controls MCC FBR Pad MCC in D-1 MCC in EQ area Miscellaneous Systems Operations Office/Network Laboratory Analyzers Security Systems Shelf Spares Media Return Pump Rebuild Kit pH Feed Pump Nutrient Feed Pump Electron Donor Feed Pump	Running Running In operation Running In operation In stock In stock In stock In stock			
26.02 26.03 26.04 26.05 26.06 26.07 27 28 29 30 31 31 32 33 33	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System GWETS Plant Controls Siemens Controls Well Control System/ Allen Bradley Controls Well Control System/ Allen Bradley Controls MCC FBR Pad MCC in D-1 MCC in EQ area Miscellaneous Systems Operations Office/Network Laboratory Analyzers Security Systems Shelf Spares Media Return Pump Rebuild Kit pH Feed Pump Nutrient Feed Pump Electron Donor Feed Pump	Running Running In operation In stock In stock In stock In stock			
26.02 26.03 26.04 26.05 26.06 26.07 27 28 29 30 31 31 32 33 33	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System GWETS Plant Controls/ Siemens Controls Well Control System/ Allen Bradley Controls Mell Control System/ Allen Bradley Controls MCC rBR Pad MCC in D-1 MCC in EQ area Miscellaneous Systems Operations Office/Network Laboratory Analyzers Security Systems Security Systems Media Return Pump Rebuild Kit pH Feed Pump Nutrient Feed Pump Electron Donor Feed Pump Phosphoric Acid Feed Pump Phosphoric Acid Feed Pump Interceptor Well Pumps (4 each)	Running Running In operation Running In operation In stock In stock In stock In stock In stock In stock			
26.02 26.03 26.04 26.05 26.06 26.07 27 28 29 30 31 31 32 33 33	PID08 PID08 PID08 PID08 PID08 PID08 PID08	East Compressor O2 Compressor Compressed Air Receiver Tank Air Dryer Oil Removal Filter Particulate Filter Oxygen System GWETS Plant Controls Siemens Controls Well Control System/ Allen Bradley Controls Well Control System/ Allen Bradley Controls MCC FBR Pad MCC in D-1 MCC in EQ area Miscellaneous Systems Operations Office/Network Laboratory Analyzers Security Systems Shelf Spares Media Return Pump Rebuild Kit pH Feed Pump Nutrient Feed Pump Electron Donor Feed Pump	Running Running In operation In stock In stock In stock In stock			

Criticality Codes 1= Critical - Cannot continue with operation until repairs made 2 = Important - Can still operate safely and in compliance with permits, but risks are increased 3 = Moderate - Work needs to be performed, but plant can still operate with redundancy that is in place 4 = Low - Minor repairs that in no way alter the performance of the plant