

# NEBRASKA

## DEPT. OF ENVIRONMENTAL QUALITY

Permits and Compliance Unit, Wastewater Section  
P.O. Box 98922  
1200 "N" Street, The Atrium  
Lincoln, NE 68509-98922 (402) 471-4220

▪ Scottsbluff Field Office  
▪ 505A Broadway, Suite 200  
▪ Scottsbluff, NE 69361-3515  
▪ (308) 641-7273

### INDUSTRIAL/COMMERCIAL NPDES COMPLIANCE INSPECTION REPORT

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**Date of Inspection:** June 27, 2017

**Time at arrival:** 9:30 a.m.

**Weather Conditions:** Partly cloudy, calm, 80°

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#### FACILITY LOCATION INFORMATION

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**NPDES PERMIT NO.:** NE0111686

**ISW Authorization No.:** NER910735

**IIS NO.:** 44141

**Permit Expiration Date:** December 31, 2021

The application for the next term of the permit is due prior to June 30, 2021.

**Facility Name:** Western Sugar Cooperative – Scottsbluff Facility

**Facility Mailing Address:** 2100 East Overland Drive, Scottsbluff, NE 69361

**Facility Location:** East Overland Drive between U.S. Highway 26 and 21<sup>st</sup> Street

**GPS Coordinates (entrance gate):** N41.85937°, W103.63300°

**Attachment 1: Site Location Aerial Photos**

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#### CONTACT INFORMATION

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**Cognizant Official:** Mike Skeans

**Title:** Vice President/Engineering **Phone:** (303) 830-3939

**Authorized Representative:** Dennis Markham

**Title:** DMR Cognizant

**Phone:** (970) 381-2349

**Wastewater Operator:** Sean Dibble

**Grade:** Ind-2

**Phone:** (970) 980-7225

**Facility Contact:** Jeff Kava

**Title:** Factory Manager

**Phone:** (308) 630-7760

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#### LEAD NDEQ INSPECTOR

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**Name:** John Flint

**Title:** Geologist/Groundwater

**Phone:** (308) 632-0544

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#### INDIVIDUAL(S) ACCOMPANYING THE INSPECTOR

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**Name:** Tracy Bentley

**Title:** Process Manager

**Phone:** (308) 630-7708

**Name:** Danny Kurtz

**Title:** MD Bench Chemist

**Phone:** (308) 630-7760

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#### TREATMENT SYSTEM INFORMATION

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**Other NDEQ/EPA Environmental Permits:** NE Class I Air Operating Permit – OPSR1-0024

Air Quality Construction Permit – CP16-014

NPDES Industrial Stormwater – NER910735

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#### PRODUCTION

**Production Process Description:** Three sugar production processes conducted at this facility; (1) The Campaign Process, (2) The "Juice Run" Process, and (3) The "Molasses Desugarization (MD)" Process.

1. "The Campaign" - Refining sugar beets into white sugar normally during the period from mid-September through March.



2. "The Juice Run" – White sugar is made after the evaporation process, normally occurring 45 days before the campaign and then 45 days after.
3. "Molasses Desugarization (MD)" – Molasses is processed into a thick juice that can be stored in tanks and later processed into white sugar, normally during the time from April through early August.

**Primary SIC Code:** 2063

**Current Raw Incoming Materials:** 604,496 tons of sugar beets received during the 2016-2017 campaign

**Current Outgoing Production Volume:** 624,139 CWT of sugar produced during the 2016-2017 campaign

**Maximum Design Production Volume:** 15,000 CWT/day (at full production during a Campaign period)

**Total Number of Employees:** 221 full time and approximately 60 seasonal during the Campaign

**Production hours (days, hours/day):** 24 hours/day, 7 days/week

**Scheduled Shutdowns:** one week at the end of the spring "Juice Run", approximately during the month of June

**Planned Production Changes within the next year?** No

**Production water source:** (amounts listed below are for the Campaign period)

Ground water wells – 2.117 MGD

Winters Creek (used only during Campaign and Juice Run) – 4.058 MGD

Water from sugar beets (only during Campaign) – 0.845 MGD

**Total Process Water Used/day (MGD):** 6.34 (max)/4.22 (average) Campaign, 3.84 (max)/2.41 (average) Juice Run, 4.20 (max)/1.42 (average) MD

**Total Non-process Water Used/day:** not measured, only for sanitary means

## WASTEWATER SYSTEM

### Source/Treatment

Outfall	Source	Treatment
001	Sugar manufacturing process	Aerated and facultative lagoon system

### Sample Location

Outfall	Description	Sample Method	GPS Coordinates
001	Historically at outfall to North Platte River (early 2017 sampling conducted at UV station)	Grab and auto-composite	See below

### Outfall Location

Outfall	Description	Receiving Stream/Stream Segment/POTW	GPS Coordinates
001	Approx. 100 feet upstream from North Platte River	North Platte River/Segment NP3-10000	N41.83921°, W103.63007°

### Flow Measurement

Outfall	Type/Method	Date of last flow meter calibration
001	Ultrasonic flow meter at UV station (currently no flow measuring device at outfall)	At time of installation

**Process Description:** Wastewater treatment is conducted in a five-celled lagoon system; two aerated ponds, one facultative pond, and a large condenser pond (Pond #5) that provides additional facultative treatment and cooling. Water from two boiler scrubbers is diverted to an ash pond where the ash settles and the water is discharged to the facultative pond. Water from Pond #5 flows through a UV station for disinfection and then to an open ditch that runs for approximately 0.75 miles where the effluent discharges through a diffuser to the North Platte River.

In emergency or exceptional conditions, effluent from lagoon system, or raw wastewater from processing facility, can be diverted into a complete retention evaporation pond at a head gate approximately 500 feet before (north of) outfall/sampling station.

**Treatment System Design Capacity:** 13.01 MGD (Design Maximum Flow in ponds)

**Aerated Lagoon 1:** 1.53 million gallon (mg) capacity

**Aerated Lagoon 2:** 1.53 mg capacity

**Facultative Lagoon 3:** 1.63 mg capacity

**Ash Pond 4:** 1.18 mg capacity

**Condenser Pond 5:** 7.0 mg capacity

**Average Effluent flow (MG/D):** 3<sup>rd</sup> Quarter 2016: 3.68 (No discharge – August 2016)

4<sup>th</sup> Quarter 2016: 7.24

1<sup>st</sup> Quarter 2017: 5.69

**Average Influent flow (MG/D):** 4<sup>th</sup> Quarter 2016: 6.03

## SLUDGE PROCESS

**Sludge Category (Hazardous waste, special waste, etc.):** Non-hazardous solid waste

**Treatment:** drying beds

**Sludge Handling:** Sludge is dried, mixed with ash from ash ponds, and then stored on site until commercial use is found.

**Land Application:** NA

**Other:** NA

**Samples Collected By:** Alberts Water & Wastewater Specialists, Inc., Fort Collins, Colorado

**Samples Analyzed By:** Colorado Analytical Laboratories, Inc., Brighton, Colorado

**Was a sample taken by NDEQ at the time of the inspection?** No

**Time/Days spent by operators at treatment plant:** Licensed operators are present every Monday, and are on call seven (7) days per week. Local Western Sugar personnel are available 24 hours a day should a problem with the treatment plant arise.

## WERE THE FOLLOWING FOUND TO BE ACCEPTABLE?

### FACILITY/COLLECTION SYSTEM

Category	Y/PV/M/NA	Comments
Lift Station(s) -Pump Condition -Alarms -Back-up Power -Bypass Evidence -Vent -Light	Y	Must be kept in good operating condition since production rate of factory depends on consistent throughput of flow through the facility.
Influent Flow Measurement	NA	
Screenings/Comminutor	NA	
Grit Removal	NA	
Splitter Box(s)	Y	In good condition
Primary Clarifier(s)	NA	
Intermediate Clarifier(s)	NA	
Aeration Basin(s)	Y	Aerated lagoons #1 and #2.
pH Adjustment Tank(s)	NA	
Final Effluent Filtration	NA	
Trickling Filter(s)	NA	
Final Clarifier(s)	NA	
Disinfection	NA	
Dechlorination	NA	

Monitoring Wells	Y	New concrete pads and bollards have been installed around the monitoring wells pursuant to current NPDES permit.
Lagoons	Y	
Fencing	Y	
Gate(s)	Y	
Signs	Y	
Effluent Flow Measurement	Y	Ultrasonic flow meter at UV station; there currently is no flow measuring device at the outfall due to damage to the new sampling station.
Effluent Appearance	Y	Effluent was clear with no visible solids or foaming
Sludge Handling	Y	Dried and mixed with ash from ash pond
Sludge Disposal	Y	Stored on site until a commercial use is established
Process Control Testing	Y	COD, ammonia, TSS, pH, DO, fecals, and temperature
Sample Handling	Y	Grab and auto-composite. Sample collection was being conducted at the outlet side of the UV station at the time of my inspection.
Laboratory	Y	Facility laboratory used for process control testing only, compliance samples analyzed by Colorado Analytical Laboratories, Inc.
DMR Compliance	PV	Please see comment #2 below regarding DMR compliance.
DMR Records Complete	Y	
General O&M	Y	Satisfactory
Y = yes, PV = potential violation, M = marginal, NA = not applicable		

Industrial Storm Water (ISW)	Y/PV/M/NA	Comments
Storm Water "Notice of Intent"	Y	At the time of the initial inspection Western Sugar had failed to secure authorization under NPDES ISW General Permit NER910000. Western Sugar responded by submitting Notice of Intent on July 6, 2017. Western Sugar was granted authorization to discharge via Authorization No. NER910735.
Storm Water "No Exposure"	NA	
Storm Water Pollution Prevention Plan (SWPPP)	Y	The newly constructed sugar beet piling grounds located east of the main facility needs to be included in the SWPPP; otherwise the SWPPP appeared to be complete.
Routine Inspections -Schedule -Who does them -During storm event? -How many?	Y	Good housekeeping and preventive maintenance inspections performed daily during the campaign and at least weekly during the inter-campaign by Maintenance Manager and/or WWTF Operator. Routine inspections also include SPCC observations. Site inspections also conducted following significant rainfall events that may produce runoff. Inspections of current construction sites are conducted every 14 days.
Quarterly Visual	Y	
Comprehensive Annual	Y	Comprehensive storm water compliance inspections are performed semiannually during the spring and fall.
Outfalls Defined -More needed -Correct Identical Outfalls	Y	Outfalls appear to be adequate in both number and location.
Benchmark Monitoring -Average calculated	NA	Sector-specific benchmark monitoring is not required for Subsector U3 (Sugar Production).
SWPPP Reviews and Updates	Y	At least annual.
Y = yes, PV = potential violation, M = marginal, NA = not applicable		

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## COMMENTS AND SUGGESTIONS

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1) The current operating permit expires on December 31, 2021. The application for the next term of the permit will be due on June 30, 2021.

2) Prior to the initial inspection on June 27, 2017, a file review conducted in preparation for the inspection revealed several significant permit limit violations for the parameters Total Suspended Solids (TSS), 5-day Biochemical Oxygen Demand (BOD), and Fecal Coliform. These permit limit violations included samples collected during both the 4<sup>th</sup> Quarter of 2016 and the 1<sup>st</sup> Quarter of 2017. During my inspection I discussed the permit limit violations with, in part, Jeff Kava, Factory Manager, Tracy Bentley, Process Manager, and Chuck Gibbs, Maintenance and Facilities Manager. They indicated Western Sugar had hired an environmental compliance firm from Fort Collins, Colorado, Alberts Water & Wastewater Specialists, Inc. (AWWS) in mid-September 2016 to serve as the Direct Responsible Charge operator for the Scottsbluff Factory and conduct the permit-required monthly and quarterly effluent/influent sampling. The Western Sugar personnel indicated AWWS personnel typically came to the Scottsbluff Factory on each Monday to conduct the effluent sampling.

As stated above in Page 3 of 10, in emergency or exceptional conditions, effluent from the lagoon system, or raw wastewater from the processing facility, can be diverted into a complete retention evaporation pond at a head gate approximately 500 feet before (north of) the outfall/sampling station. The Western Sugar personnel theorized the AWWS water samplers were not made aware of this. It was theorized that on certain Mondays AWWS personnel were sampling untreated effluent (i.e. raw wastewater) that was too strong organically to be treated in the facility wastewater treatment lagoon system and was being diverted into the evaporation pond, rather than sampling treated effluent from the lagoon system that was being discharged through the outfall into the North Platte River. The samples of the untreated effluent were then analyzed in the laboratory and produced results that appeared to be significantly higher than discharge limits contained in the NPDES permit. It was also theorized the AWWS personnel were collecting the samples at the UV disinfection station rather than at the outfall. I conducted a follow-up site visit on July 25, 2017 to discuss these sampling and reporting issues. I met with Josh Livingston, Corporate Safety, Health, and Environmental Director, in addition to the Western Sugar personnel named above. Also present were Hope Dibble, AWWS Compliance Manager, and Sean Dibble, AWWS Certified Operator. The AWWS personnel confirmed their sampling schedule that was described above, and that data entered on several of the DMRs likely contained analytical data from samples of untreated wastewater rather than treated effluent. Following our meeting the group toured the facility and discussed a sampling strategy that should allow for the future submittal of analytical data for treated effluent being discharged through the outfall.

AWWS and Western Sugar responded to the follow-up meeting and site visit by submitting revised DMRs and noncompliance reporting forms for the DMR data that exceeded permit limits.

3) During the initial inspection I toured the facility with Tracey Bentley and Danny Kurtz, MD Bench Chemist. We observed the influent pump house, the wastewater treatment lagoons, ultraviolet (UV) disinfection station, wastewater conveyance ditch, and the outfall at the North Platte River.

4) At the time of the initial inspection Western Sugar had failed to secure authorization under NPDES Industrial Storm Water General Permit NER910000. Western Sugar responded by submitting Notice of Intent on July 6, 2017. Western Sugar was granted authorization to discharge via Authorization No. NER910735.

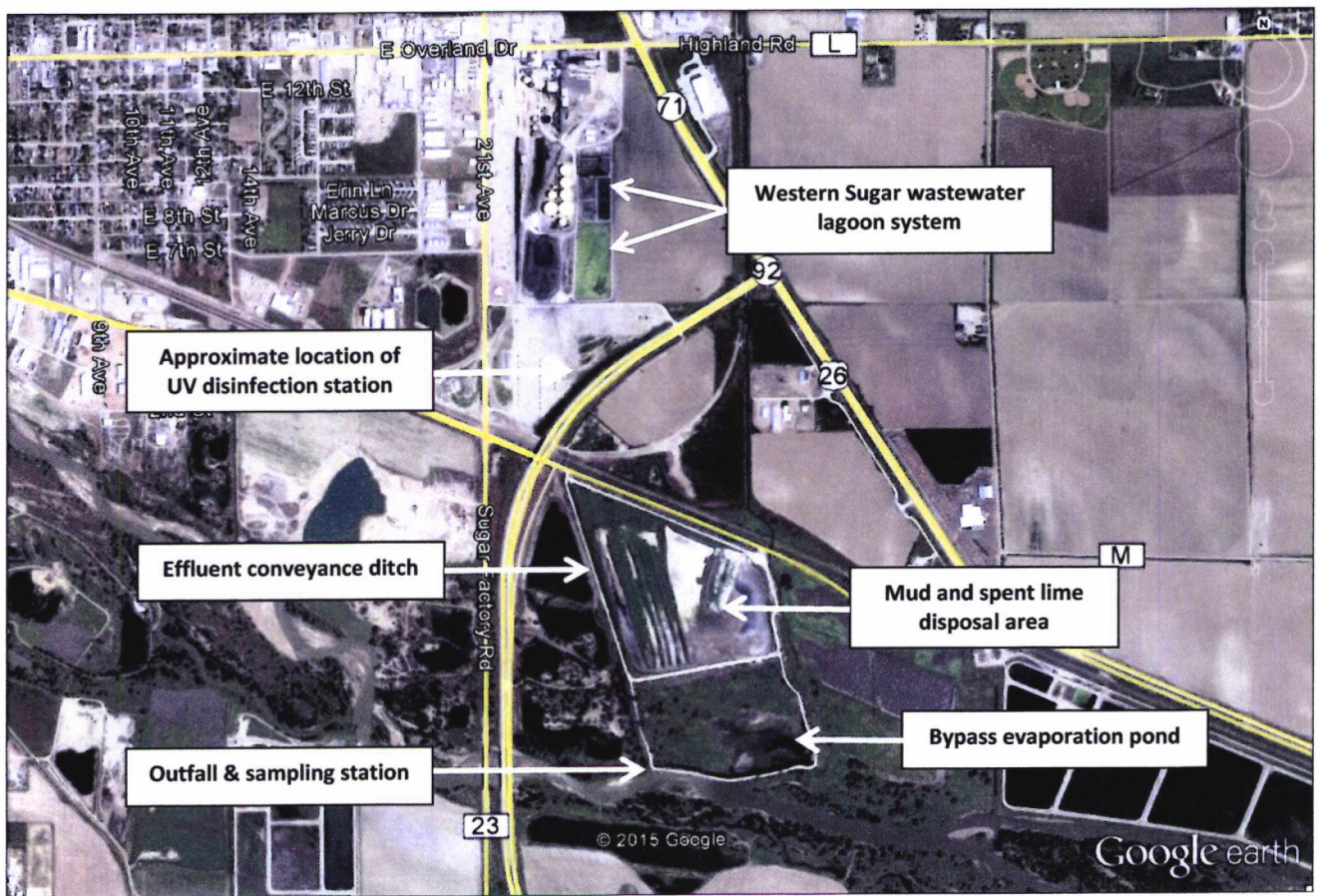
5) All historical DMR records, laboratory analyses, and storm water inspection records were made available upon request. Records for the past three (3) years appeared to be complete.

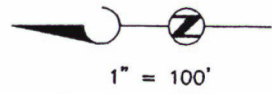
If you have any questions concerning this inspection or any other NPDES issue, please call John Flint at (308) 641-7273 or email at [john.flint@nebraska.gov](mailto:john.flint@nebraska.gov). Your continued cooperation is appreciated.

Signature John L. Flint Date 2-07-2018

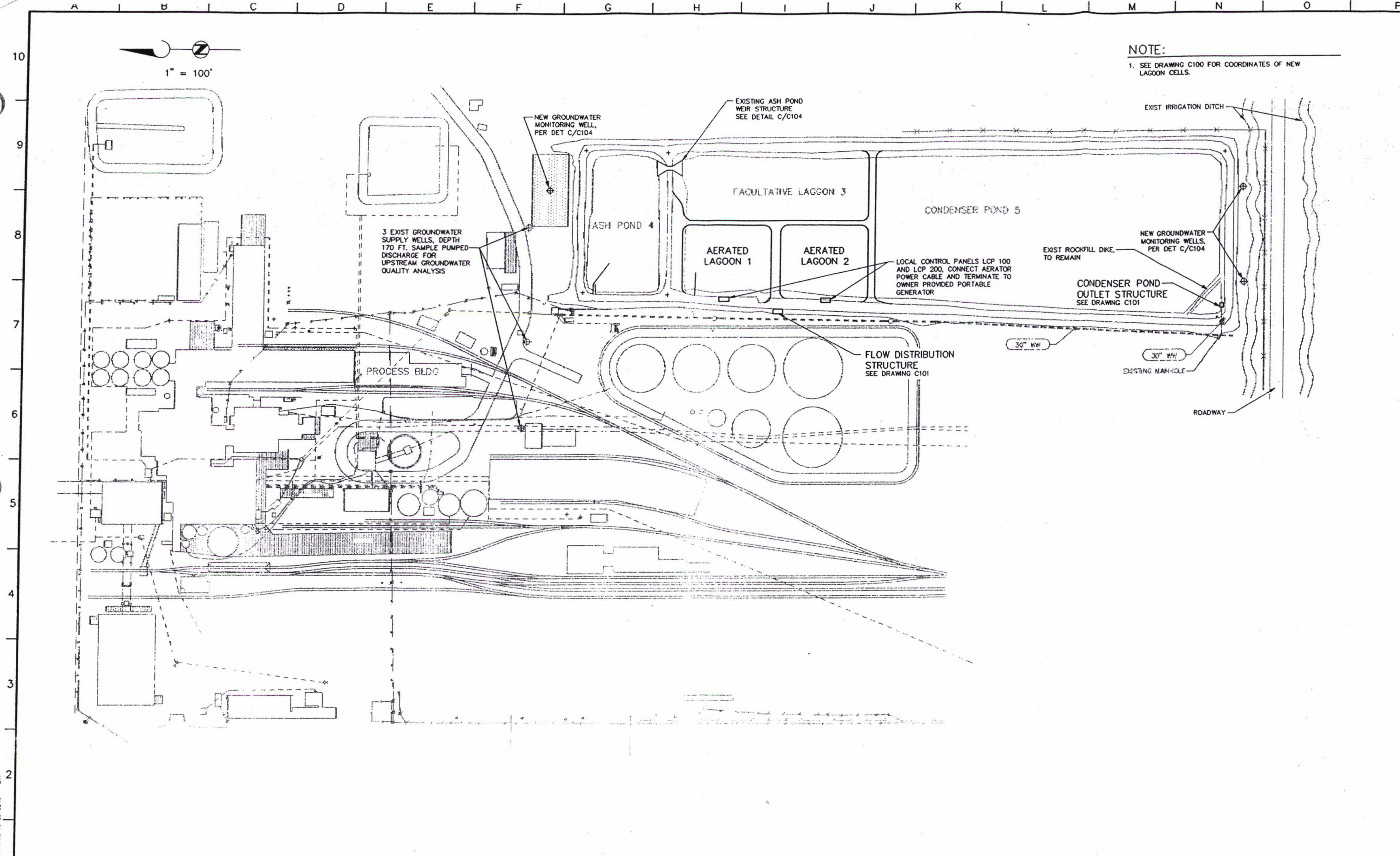
**John Flint**  
**Scottsbluff Field Office**  
**NDEQ**

Attachments: (1) Site Location Aerial Photographs, (2) WWTF Flow Diagram, (3) Facility Photos





**NOTE:**  
1. SEE DRAWING C100 FOR COORDINATES OF NEW LAGOON CELLS.



90-002 10-28-92 10 SKT

**BC Brown and Caldwell Consultants**  
Denver, Colorado

SUBMITTED: \_\_\_\_\_ DATE: \_\_\_\_\_  
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"=SCALE ACCORDINGLY)

FILE 6904  
DRAWN B.J.F.  
DESIGNED MPL  
CHECKED MPL  
CHECKED MPL

ZONE	REV.	DESCRIPTION	BY	DATE	APP.
	△	AS-BUILT	SKT	10/92	

ZONE	REV.	DESCRIPTION	BY	DATE	APP.
	△	AS-BUILT	SKT	10/92	



**WESTERN SUGAR**  
SCOTTSBLUFF, NEBRASKA

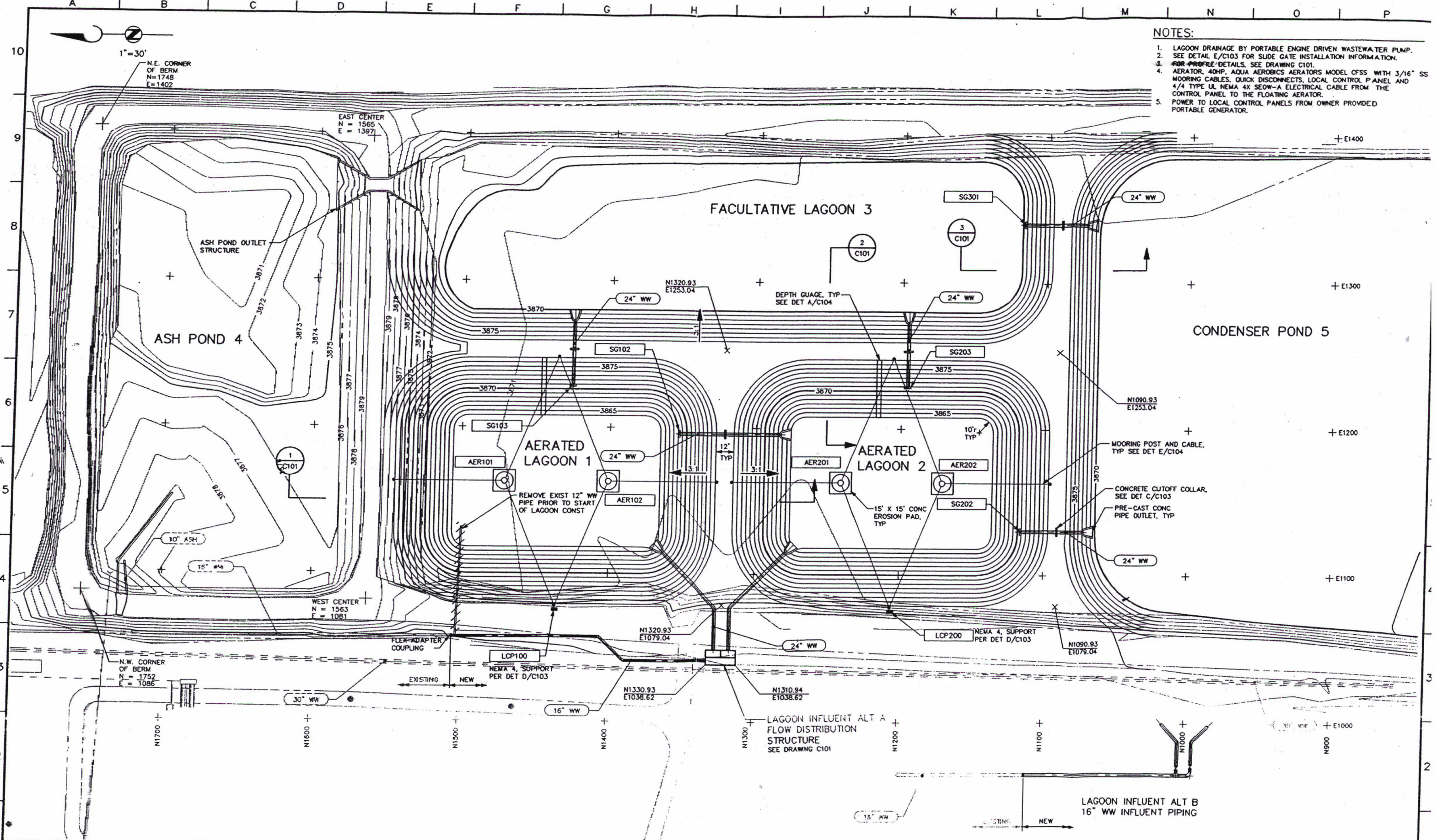
**AERATED LAGOON SYSTEM ADDITIONS**

GENERAL  
SITE PLAN

DRAWING NUMBER  
**G1**  
SHEET NUMBER



- NOTES:**
- LAGOON DRAINAGE BY PORTABLE ENGINE DRIVEN WASTEWATER PUMP.
  - SEE DETAIL E/C103 FOR SLIDE GATE INSTALLATION INFORMATION.
  - FOR PROFILE DETAILS, SEE DRAWING C101.
  - AERATOR, 40HP, AQUA AEROBICS AERATORS MODEL CFSS WITH 3/16" SS MOORING CABLES, QUICK DISCONNECTS, LOCAL CONTROL PANEL AND 4/4 TYPE UL NEMA 4X SEOW-A ELECTRICAL CABLE FROM THE CONTROL PANEL TO THE FLOATING AERATOR.
  - POWER TO LOCAL CONTROL PANELS FROM OWNER PROVIDED PORTABLE GENERATOR.



**BC Brown and Caldwell Consultants**  
Denver, Colorado

SUBMITTED: \_\_\_\_\_ DATE: \_\_\_\_\_  
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2" SCALE ACCORDINGLY)

FILE 6904  
DRAWN JRA  
DESIGNED PMP  
CHECKED PMP  
CHECKED MPL

ZONE	REV	DESCRIPTION	BY	DATE	APP.
	1	AS-BUILT	SKT	10/92	

ZONE	REV	DESCRIPTION	BY	DATE	APP.
	1	AS-BUILT	SKT	10/92	

**WESTERN SUGAR**  
SCOTTSBLUFF, NEBRASKA

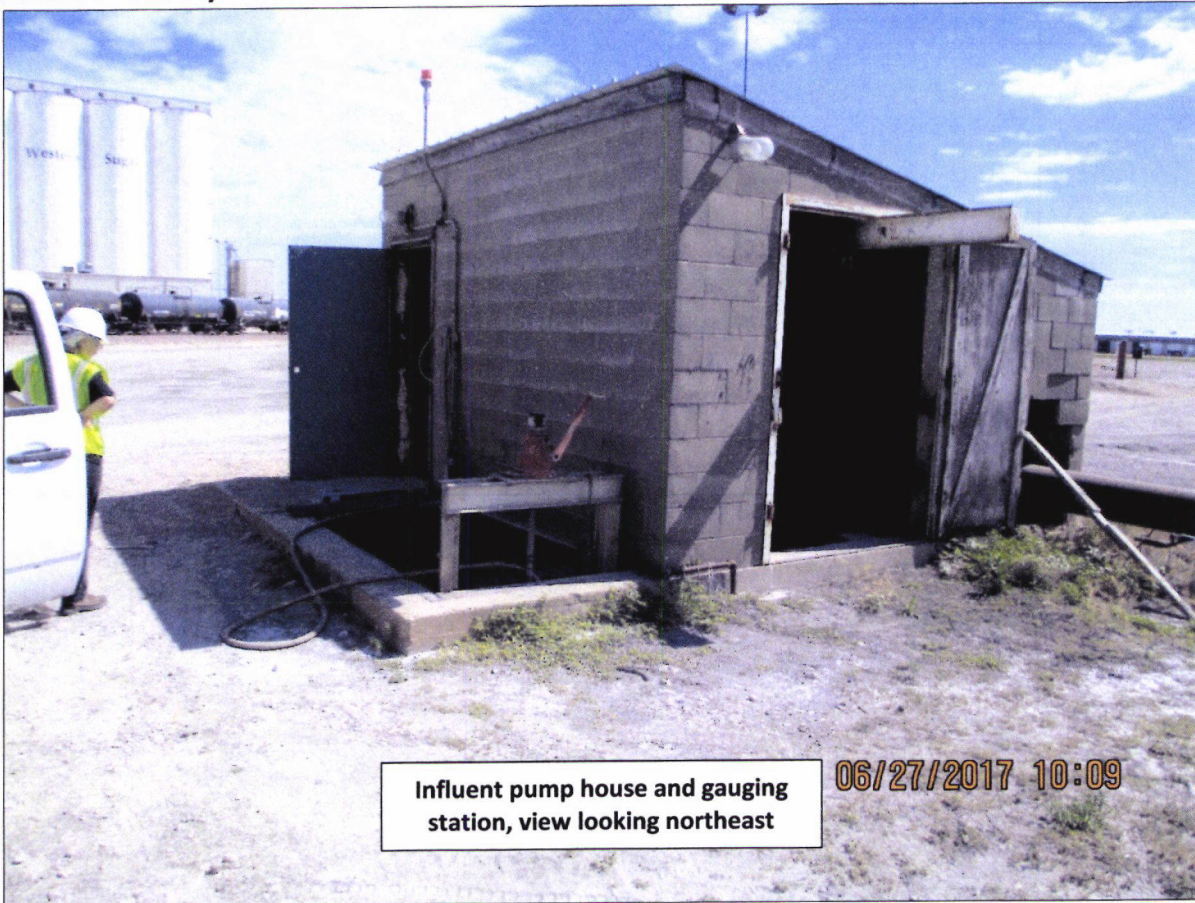
**AERATED LAGOON SYSTEM ADDITIONS**

AERATED LAGOON SYSTEM  
LAGOON PLAN

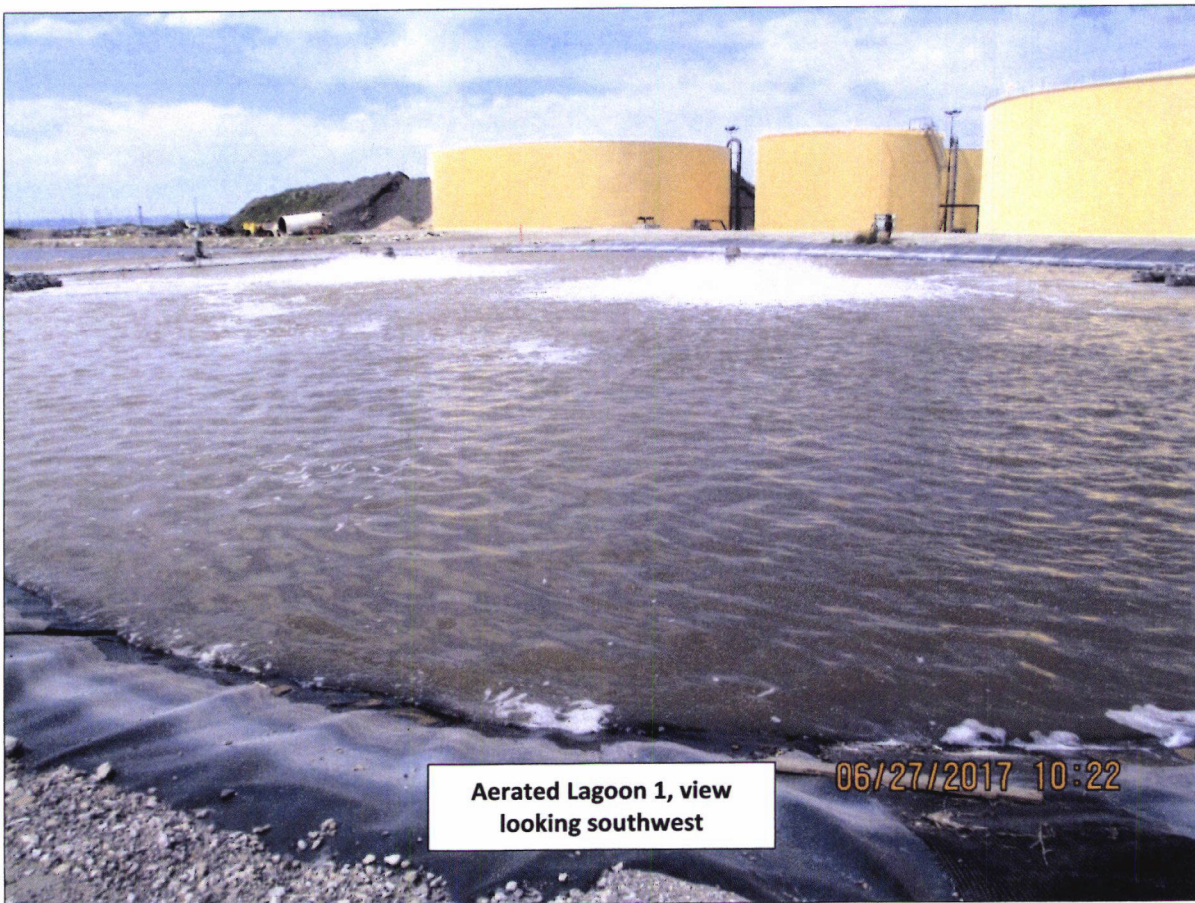
DRAWING NUMBER  
**C100**  
SHEET NUMBER

C6904004 10-28-92 8 SKT

Attachment 3 – Facility Photos



Influent pump house and gauging station, view looking northeast

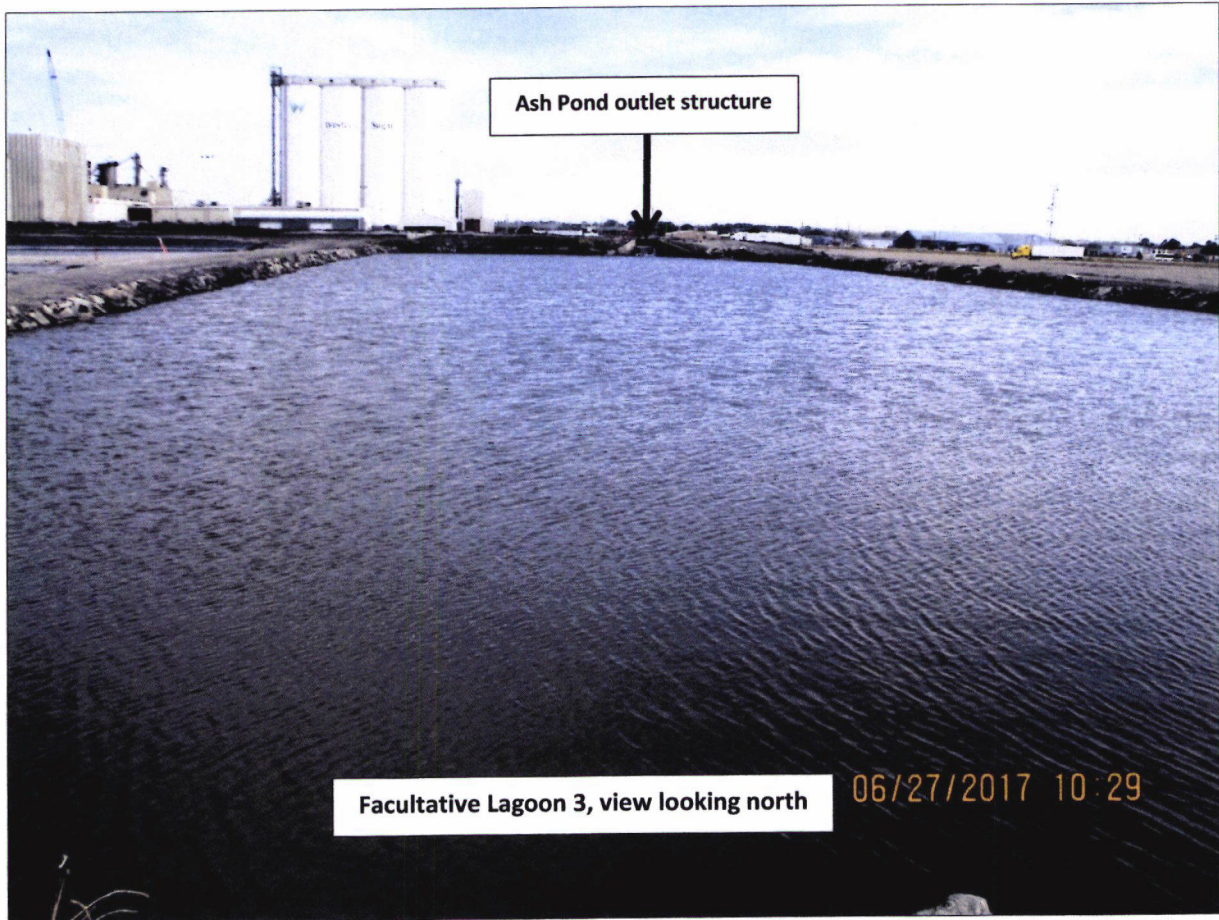


Aerated Lagoon 1, view looking southwest



Aerated Lagoon 2, view looking northwest

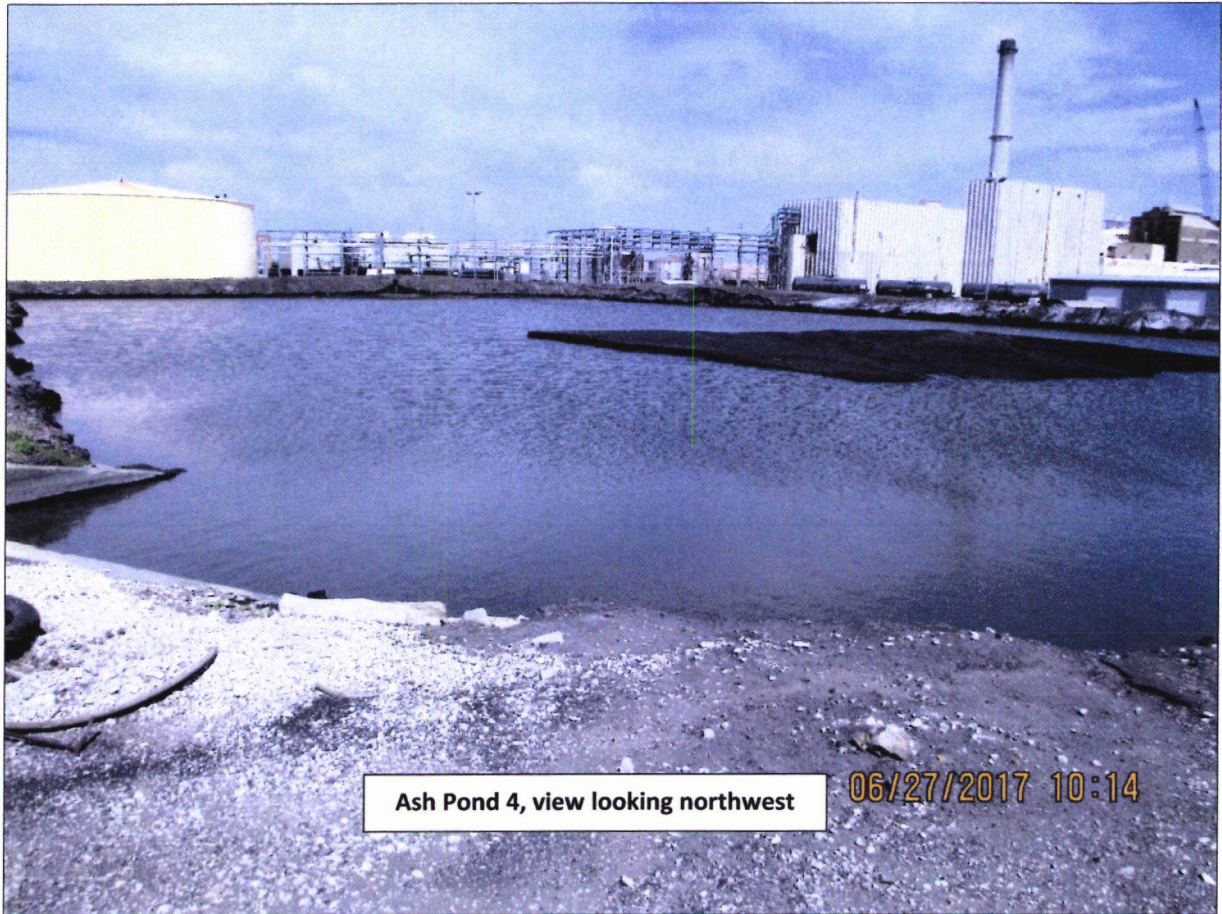
06/27/2017 10:23



Ash Pond outlet structure

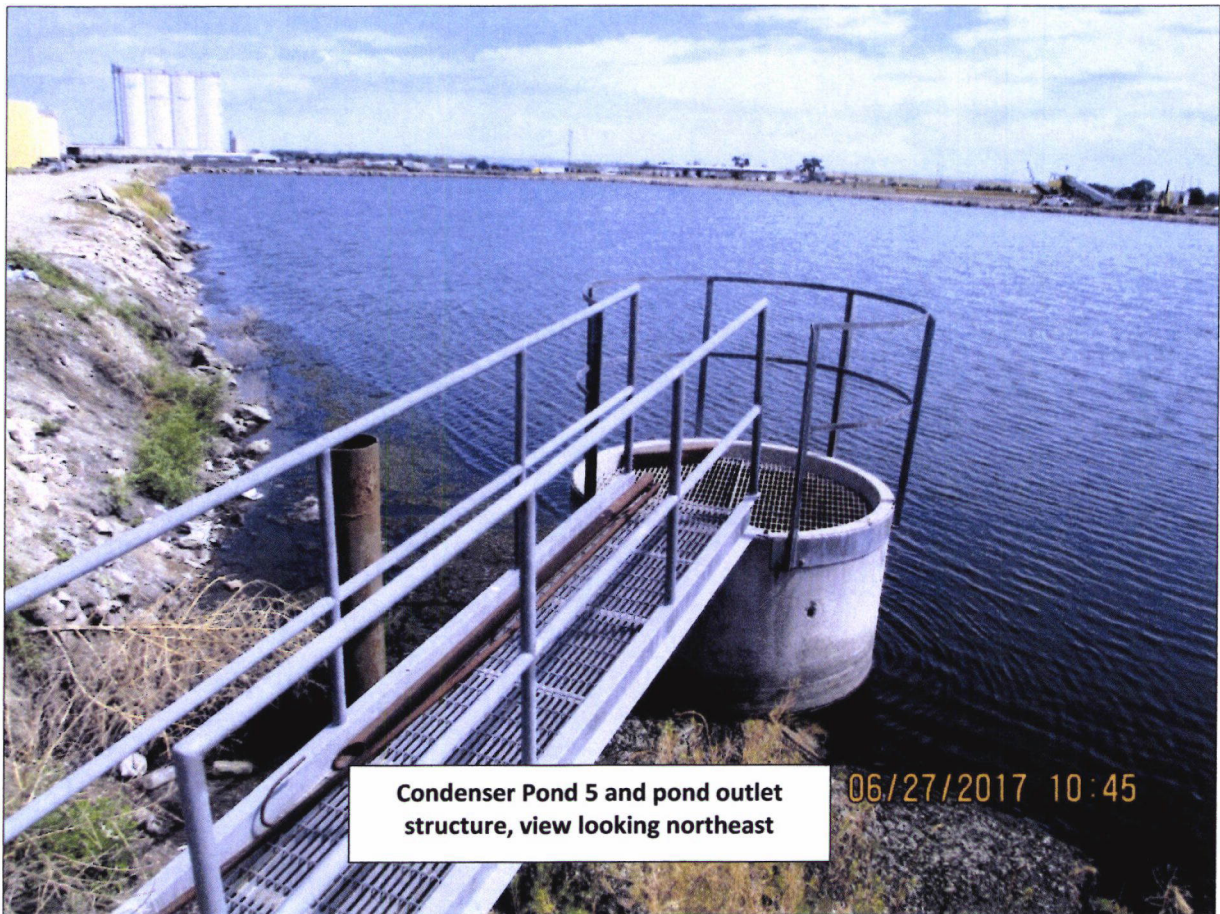
Facultative Lagoon 3, view looking north

06/27/2017 10:29



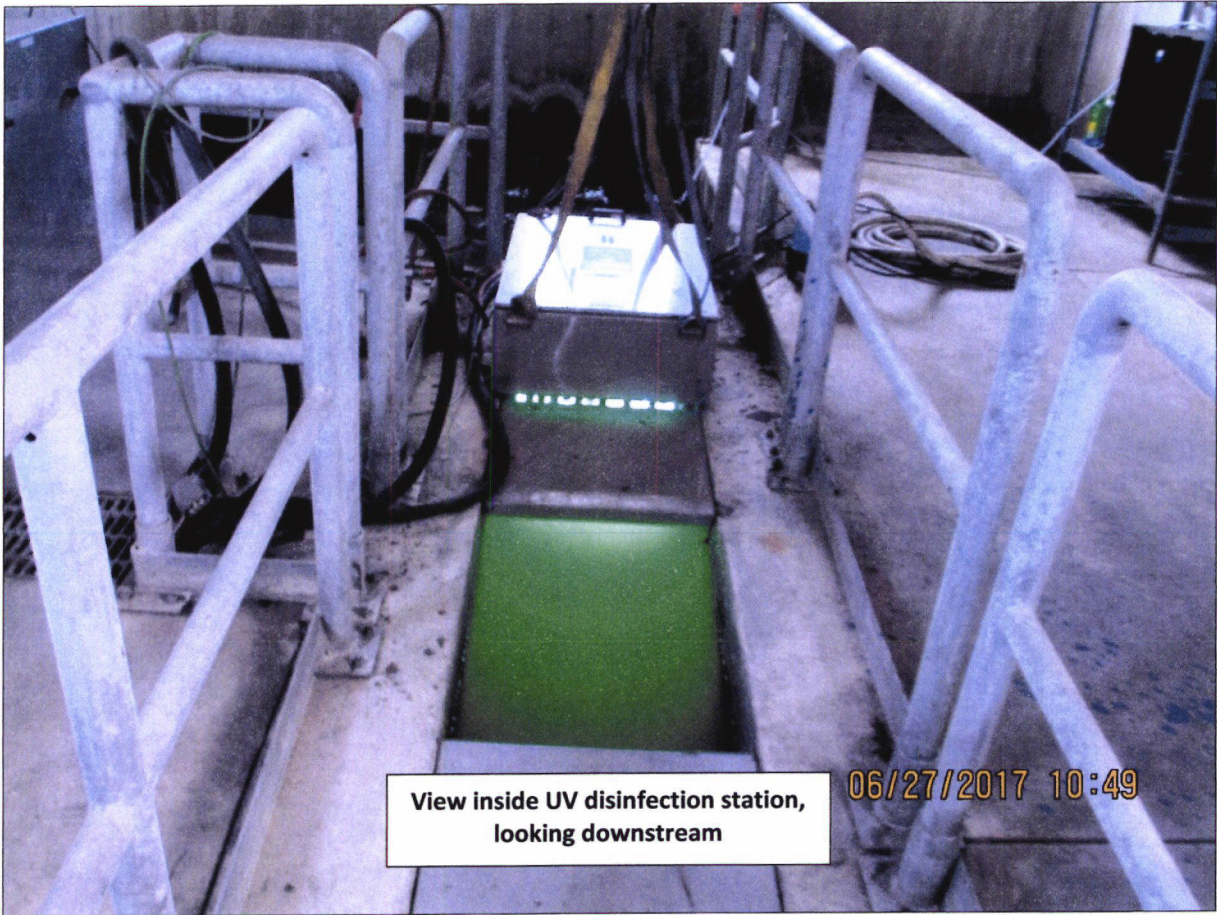
Ash Pond 4, view looking northwest

06/27/2017 10:14



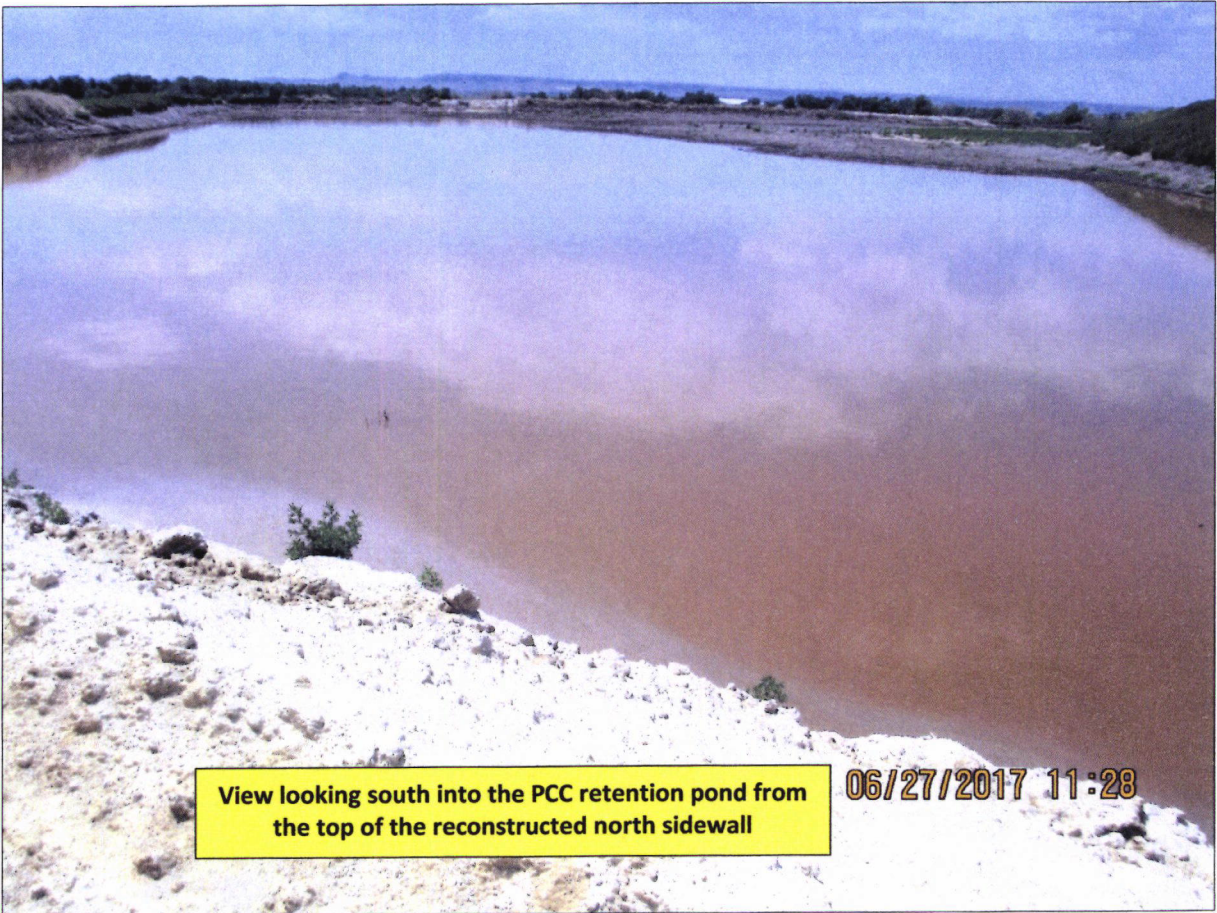
Condenser Pond 5 and pond outlet structure, view looking northeast

06/27/2017 10:45



View inside UV disinfection station,  
looking downstream

06/27/2017 10:49



View looking south into the PCC retention pond from  
the top of the reconstructed north sidewall

06/27/2017 11:28

Inspection Exit Summary

NDEQ ID: 44141 NDEQ Program ID: NE011686 NDEQ Notification #: NER900141 <sup>ISW Authorization</sup>  
 Facility/Operation Name: Western Sugar Cooperative - Scottsbluff  
 Address 2100 East Overland Drive  
 City/Town: Scottsbluff, County Scotts Bluff, State of Nebraska.  
 Owner/Occupant/Operator Inspection Contact(s): Jeff Kava, Tracy Bentley

Inspector	Phone No	E-Mail address
<u>John Flint</u>	<u>308-632-0544</u>	<u>john.flint@nebraska.gov</u>
		<u>@nebraska.gov</u>

Mailing Address: Department of Environmental Quality, PO Box 98922, Lincoln, Nebraska 68509-8922

Inspection Date: 6-27-2017 Start Time: 9:30 am End Time: 12:00 p.m.

No concerns observed  Further agency discussion needed

Concerns observed:

- Permit limit violations for Total Suspended Solids, 5-day BOD, and Fecal Coliform; 4th Quarter 2016 and 1st Quarter 2017.
- Did not conduct 1st Quarter 2017 influent monitoring.
- Facility did not submit Notice of Intent (NOI) to secure coverage under Industrial Stormwater General Permit (ISW-GP) NER910000.
- Decisions on <sup>ISW</sup> the ~~appropriate~~ Flow monitoring and permit compliance sampling locations need to be made.

Actions to be performed immediately or as soon as reasonably practical:

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**Please notify the Inspector when the above actions are completed.**

The Department will provide a final inspection report to you usually within 45 days of the inspection. The final inspection report will contain a complete list of any alleged violations. This inspection exit summary does not preclude any other legal action by the Nebraska Department of Environmental Quality and your prompt attention to the documented concerns will be considered in assessment of your voluntary compliance. This summary was left with: Tracy Bentley. Please contact the Inspector if you have any questions concerning this inspection exit summary.

John L. Flint  
Inspector Signature

Signing this document is not an admission of liability by the facility.

Tracy Bentley  
Inspection Contact Signature