



State of Utah

GARY R. HERBERT
Governor

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Lieutenant Governor

Department of
Environmental Quality

Alan Matheson
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

C/O 15/032 Incoming
CC: Steve C.

OCT 28 2015

CERTIFIED MAIL
(Return Receipt Requested)

Ms. Karin Madsen, Engineering Tech.
Genwal Resources, Inc., Crandall Canyon Mine
794 North C Canyon Road
P.O. Box 910
East Carbon, UT 84520

RECEIVED

OCT 30 2015

DIV. OF OIL, GAS & MINING

Subject: UPDES Inspection - Crandall Canyon Mine (UT0024368).

Dear Ms. Madsen:

On September 10, 2015 I completed a Compliance Evaluation Inspection (CEI) of Genwal Resources, Inc., Crandall Canyon Mine. Enclosed is a report of that inspection. Two deficiencies and two requirements were noted in the report. A "deficiency" is non-compliance with UPDES permit requirements or associated regulations and a "requirement" does not mean non-compliance but rather actions we would like completed to prevent further non-compliances. Please respond to these "deficiencies and requirements" within thirty days of receipt of this inspection report.

If you have any questions, please contact me at (801) 536-4386 or by e-mail at mherkimer@utah.gov.

Sincerely,

Mike Herkimer, Environmental Scientist
UPDES Surface Water Section

KM:MH:nf

- Enclosures (6)
1. 3560 form (DWQ-2015-012247)
 2. SW 3560 form (DWQ-2015-012249)
 3. CEI inspection report (DWQ-2015-012250)
 4. CEI checklist (DWQ-2015-012251)
 5. Photo log (DWQ-2015-012252)
 6. Checklist calc's (DWQ-2015-012253)

cc (w/encl): Brady Bradford, SE District Health Department (w. encl)
Dave Ariotti, SE District Engineer (w/out encl)
Daron Haddock, Division of Oil Gas & Mining (w. encl)

DWQ-2015-012234

U:\PERMITS\MHERKIMER\wp\Genwal Permit\CEI cover letter Genwal Mine 9-10-2015.docx

195 North 1950 West • Salt Lake City, UT
Mailing Address: P.O. Box 144870 • Salt Lake City, UT 84114-4870
Telephone (801) 536-4300 • Fax (801) 536-4301 • T.D.D. (801) 903-3978

www.deq.utah.gov

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United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., ICIS)

Transaction Code N	NPDES U T 0 0 2 4 3 6 8	yr/mo/day 1 5 0 9 1 0	Inspection Type C	Inspector S	Fac. Type 2
Remarks					
Inspection Work Days 2	Facility Self-Monitoring Evaluation Rating 4	BI D	QA N	Reserved	

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) Crandall Canyon Mine (a.k.a. Genwal Resources, Inc.) UtahAmerican Energy, Inc. ~1.5 miles up Crandall Canyon off Hwy. 31 in Huntington Canyon NW of Huntington, UT	Entry Time/ Date 12:30 pm 9-10-2015	Permit Effective Date 5/1/2011
	Exit Time/ Date 3:45 pm 9-10-2015	Permit Expiration Date 4/30/2016
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Karin Madsen, Engineering Tech., 435-888-4026	Other Facility Data (e.g., SIC NAICS, and other descriptive information) Bituminous Coal Underground Mining Facility SIC Code 1222 NAICS 212112 SEE ATTACHED	
Name, Address of Responsible Official/Title/Phone and Fax Number David Hibbs, President UtahAmerican Energy, Inc. 794 North "C" Canyon Road P.O. Box 910 East Carbon, Utah 84520-0910	Contacted <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

<input checked="" type="checkbox"/> Permit	<input checked="" type="checkbox"/> Self Monitoring Program	<input type="checkbox"/> Pretreatment	<input type="checkbox"/> MS4
<input checked="" type="checkbox"/> Records/Reports	<input type="checkbox"/> Compliance Schedule	<input type="checkbox"/> Pollution Prevention	
<input checked="" type="checkbox"/> Facility Site Review	<input type="checkbox"/> Laboratory	<input type="checkbox"/> Storm Water	
<input checked="" type="checkbox"/> Effluent/Receiving Waters	<input type="checkbox"/> Operations & Maintenance	<input type="checkbox"/> Combined Sewer Overflow	
<input checked="" type="checkbox"/> Flow Measurement	<input type="checkbox"/> Sludge Handling/Disposal	<input type="checkbox"/> Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments

(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s) Mike Herkimer, Environmental Scientist 	Agency/Office/Phone and Fax Number(s) DWQ (801) 536-4386	Date: 10/28/15
N/A		
Name and Signature of Management Q A Reviewer Kim Shelley, Manager Surface Water Section 	Agency/Office/Phone and Fax Number(s) DWQ (801) 536-4385	Date: 10/28/15

INSTRUCTIONS

Section A: National Data System Coding (i.e., ICIS)

Column 1: Transaction Code: Use N, C, or D for New, Change, or Delete. All inspections will be *new* unless there is an error in the data entered.

Columns 3-11: NPDES Permit No. Enter the facility's NPDES permit number - third character in permit number indicates permit type for U=unpermitted, G=general permit, etc. (Use the Remarks columns to record the State permit number, if necessary.)

Columns 12-17: Inspection Date. Insert the date entry was made into the facility. Use the year/month/day format (e.g., 04/10/01 = October 01, 2004).

Column 18: Inspection Type*. Use one of the codes listed below to describe the type of inspection:

A Performance Audit	X Toxics Inspection	6 IU Non-Sampling Inspection with Pretreatment
B Compliance Biomonitoring	Z Sludge - Biosolids	7 IU Toxics with Pretreatment
C Compliance Evaluation (non-sampling)	# Combined Sewer Overflow-Sampling	! Pretreatment Compliance (Oversight)@
D Diagnostic	\$ Combined Sewer Overflow-Non-Sampling	Follow-up (enforcement)
F Pretreatment (Follow-up)	+ Sanitary Sewer Overflow-Sampling	{ Storm Water-Construction-Sampling
G Pretreatment (Audit)	& Sanitary Sewer Overflow-Non-Sampling	} Storm Water-Construction-Non-Sampling
I Industrial User (IU) Inspection	\ CAFO-Sampling	: Storm Water-Non-Construction-Sampling
J Complaints	= CAFO-Non-Sampling	~ Storm Water-Non-Construction-Non-Sampling
M Multimedia	2 IU Sampling Inspection	< Storm Water-MS4-Sampling
N Spill	3 IU Non-Sampling Inspection	- Storm Water-MS4-Non-Sampling
O Compliance Evaluation (Oversight)	4 IU Toxics Inspection	> Storm Water-MS4-Audit
P Pretreatment Compliance Inspection	5 IU Sampling Inspection with Pretreatment	
R Reconnaissance		
S Compliance Sampling		
U IU Inspection with Pretreatment Audit		

Column 19: Inspector Code. Use one of the codes listed below to describe the *lead agency* in the inspection.

A- State (Contractor)	O- Other Inspectors, Federal/EPA (Specify in Remarks columns)
B- EPA (Contractor)	P- Other Inspectors, State (Specify in Remarks columns)
E- Corps of Engineers	R- EPA Regional Inspector
J- Joint EPA/State Inspectors—EPA Lead	S- State Inspector
L- Local Health Department (State)	T- Joint State/EPA Inspectors—State lead
N- NEIC Inspectors	

Column 20: Facility Type. Use one of the codes below to describe the facility.

- 1- Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.
- 2- Industrial. Other than municipal, agricultural, and Federal facilities.
- 3- Agricultural. Facilities classified with 1987 SIC 0111 to 0971.
- 4- Federal. Facilities identified as Federal by the EPA Regional Office.
- 5- Oil & Gas. Facilities classified with 1987 SIC 1311 to 1389.

Columns 21-66: Remarks. These columns are reserved for remarks at the discretion of the Region.

Columns 67-69: Inspection Work Days. Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection and submit a QA reviewed report of findings. This estimate includes the accumulative effort of all participating inspectors; any effort for laboratory analyses, testing, and remote sensing; and the billed payroll time for travel and pre and post inspection preparation. This estimate does not require detailed documentation.

Column 70: Facility Evaluation Rating. Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

Column 71: Biomonitoring Information. Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

Column 72: Quality Assurance Data Inspection. Enter Q if the inspection was conducted as follow-up on quality assurance sample results. Enter N otherwise.

Columns 73-80: These columns are reserved for regionally defined information.

Section B: Facility Data

This section is self-explanatory except for "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, other updates to the record, SIC/NAICS Codes, Latitude/Longitude).

Section C: Areas Evaluated During Inspection

Check only those areas evaluated by marking the appropriate box. Use Section D and additional sheets as necessary. Support the findings, as necessary, in a brief narrative report. Use the headings given on the report form (e.g., Permit, Records/Reports) when discussing the areas evaluated during the inspection.

Section D: Summary of Findings/Comments

Briefly summarize the inspection findings. This summary should abstract the pertinent inspection findings, not replace the narrative report. Reference a list of attachments, such as completed checklists taken from the NPDES Compliance Inspection Manuals and pretreatment guidance documents, including effluent data when sampling has been done. Use extra sheets as necessary.

*Footnote: In addition to the inspection types listed above under column 18, a state may continue to use the following wet weather and CAFO inspection types until the state is brought into ICIS-NPDES: K: CAFO, V: SSO, Y: CSO, W: Storm Water 9: MS4. States may also use the new wet weather, CAFO and MS4 inspections types shown in column 18 of this form. The EPA regions are required to use the new wet weather, CAFO, and MS4 inspection types for inspections with an inspection date (DTIN) on or after July 1, 2005.



United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., ICIS)

Transaction Code [N] [] 1 2	NPDES [U][T][0][0][2][4][3][6][8] 3 11	yr/mo/day [1][5][0][9][1][0] 12 17	Inspection Type [~] 18	Inspector [S] 19	Fac. Type [2] 20
Remarks 21					
Inspection Work Days [] [2] [] 67 69	Facility Self-Monitoring Evaluation Rating [4] 70	BI [D] 71	QA [N] 72	Reserved [] [] [] [] [] [] [] [] [] [] 73 74 75 80	

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[][][][][]	_____
[][][][][]	_____
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Name(s) and Signature(s) of Inspector(s) Mike Herkimer, Environmental Scientist 	Agency/Office/Phone and Fax Number(s) DWQ (801) 536-4386	Date: 10/20/15
N/A		
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INSPECTION PROTOCOL

UPDES Permit #: UT0024368 – Genwal Resources, Inc.

Inspection Type: Compliance Evaluation Inspection (CEI) + Storm Water Inspection

Inspection Date: September 10, 2015

Mike Herkimer of the Division of Water Quality (DWQ) met with Karin Madsen, Engineering Technician for Genwal Resources, Inc. (Genwal). The purpose and scope of the inspection were explained, CEI and storm water checklists were completed, and a brief facility tour was completed.

FACILITY DESCRIPTION

Location: Approximately 15 miles northwest of Huntington, Utah in Crandall Canyon (1.5 miles west of Highway 30). The mailing address is:

Genwal Resources, Inc.

P.O. Box 910

East Carbon, Utah 84520

and the shipping address and location of headquarters for the mine is:

Genwal Resources, Inc.

794 North C Canyon Road

East Carbon, Utah 84520

Discharge points: This facility has two discharge points. Outfall 001 is an outfall from the sedimentation pond which drains the entire disturbed area of the mine. This pond has not discharged in the last two permit cycles. Outfall 001 is located at latitude 39°27'38" north, longitude 111°09'59" west.

Outfall 002 is discharge from the mine. The mine was shut down in August of 2007 and has not operated since. However the mine has continued to discharge. This discharge is high in total iron and as a result a treatment system to remove total iron has been functioning for a number of years. Outfall 002 is located on latitude 39°27'38" north, longitude 111°09'59" west.

Design capacity for the mine: 1.5 million gallons per day (MGD).

Receiving Waters: If a discharge were to occur at Outfall 001, it would flow to Crandall Canyon Creek. Outfall 002 also discharges to Crandall Canyon Creek. Crandall Canyon Creek flows into the Huntington River. As a tributary to Huntington Creek, Crandall Creek is classified as 1C, 2B, 3A, and 4 according to Utah Administrative Code (UAC) R317-2-13.

- Class 1C -Protected for domestic purposes with prior treatment by treatment processes as required by the Utah Division of Drinking Water.
- Class 2B -Protected for secondary contact recreation such as boating, wading, or similar uses.
- Class 3A -Protected for cold-water species of game fish and other cold-water aquatic life, including the necessary aquatic organisms in their food chain.
- Class 4 -Protected for agricultural uses including irrigation of crops and stock watering.

INSPECTION SUMMARY

Effluent & Flow Measurement: Effluent flow is measured by an in-line flow meter on a 12 inch main line from the mine. The meter appears to be installed properly. The inspector is unsure of how the meter is calibrated.

Permit and Record Keeping: The discharge monitoring report (DMR) for December 2014 was reviewed in depth to determine if the DMR was prepared properly. Holding time for all parameters was met and calculations were completed properly except for dissolved oxygen. There is a difference between the concentration that was calculated for the inspection and the value entered on the DMR submitted. In addition, the value for total aluminum was above 0.927 mg/L which is considered as non-compliance with the permit. At the time this value occurred the mine was in the process of changing flocculants which caused some instability. The renewal permit for this facility should be completed by May 1, 2016. Unless the flocculent is changed again, the new permit will have total aluminum effluent limits.

Storm Water: At the time of the inspection a Storm Water Pollution Prevention Plan (SWPPP) for the Genwal could not be found. It was felt that a SWPPP had been developed, but could not be found. Genwal needs to either develop a SWPPP, or if one is found, to up-date the plan.

DEFICIENCIES

1. Genwal needs to comply with Part I.D.2 footnote c of the UPDES permit UT0024368, and make sure that total aluminum does not exceed 0.927 mg/L.
2. Genwal needs to develop a storm water program inclusive of a SWPPP as required by Part II of the UPDES permit UT0024368.

CORRECTIVE ACTION

1. Eliminate non-compliance with Part I.D.2 footnote c of the UPDES permit. Please inform the Division of Water Quality what the cause of the non-compliance was and that the cause has been eliminated. Total aluminum will be included in the next renewal permit if alum is still being used. Between now and

when the new permit is issued (anticipated May 1, 2016), if non-compliance is continued, it may result in a Notice of Violation.

2. Genwal needs to develop a storm water program inclusive of a SWPPP within the next 30 days. If a storm water program has been developed as required by the permit in Part II, as well as a SWPPP, both need to be up-dated to reflect current practices.

REQUIREMENTS

1. Please indicate why the calculated dissolved oxygen minimum in this inspection report is different than that entered on the DMR submitted for December of 2014.
2. Please indicate how the in-line flow meter measures flow and how the effluent discharge at Genwal is calibrated and verified as accurate.

LIST OF ATTACHEMENTS (appended to this narrative report and 3560-3 form)

- State checklist
- Photo log
- Checklist data tables with associated attachments (DMR, lab sheets, field sheets for DO, pH, temperature and conductivity)



Photo #1: Heated control room for the iron treatment system at Genwal Mine associated with Outfall 002.



Photo #2: Flow meter associated with the iron treatment system at Genwal Mine

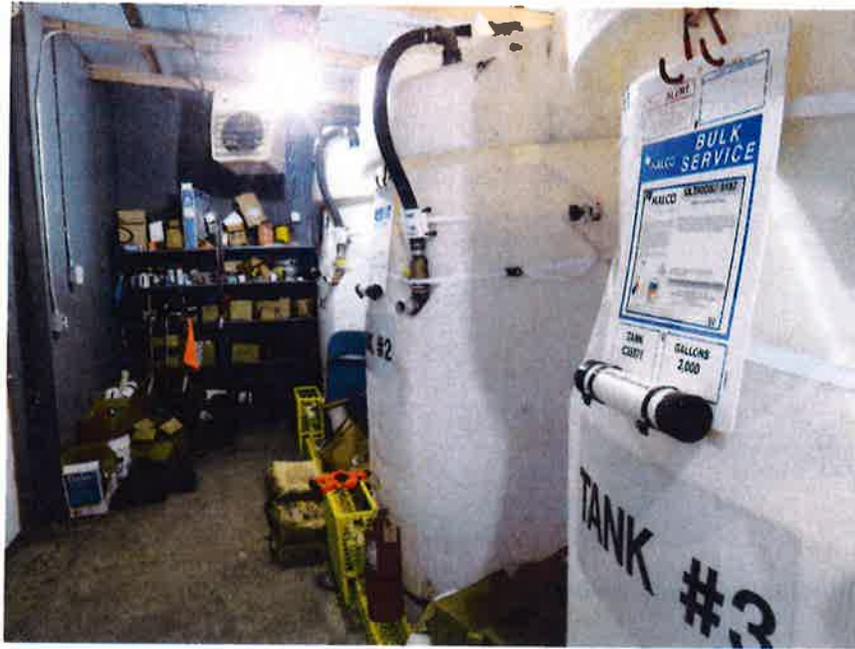


Photo #3: Coagulant tanks used in the iron treatment system at Genwal Mine



Photo#4: Type of coagulant being used at the Genwal Mine iron treatment system



Photo#5: Flow measurement device on 12 inch line at the Genwal Mine iron treatment system



Photo #6: Sensor associated with flow measurement device at the Genwal Mine iron treatment system



Photo #7: Iron laden water going into first treatment cell, which contains coagulants and flocculent. Genwal iron treatment system.

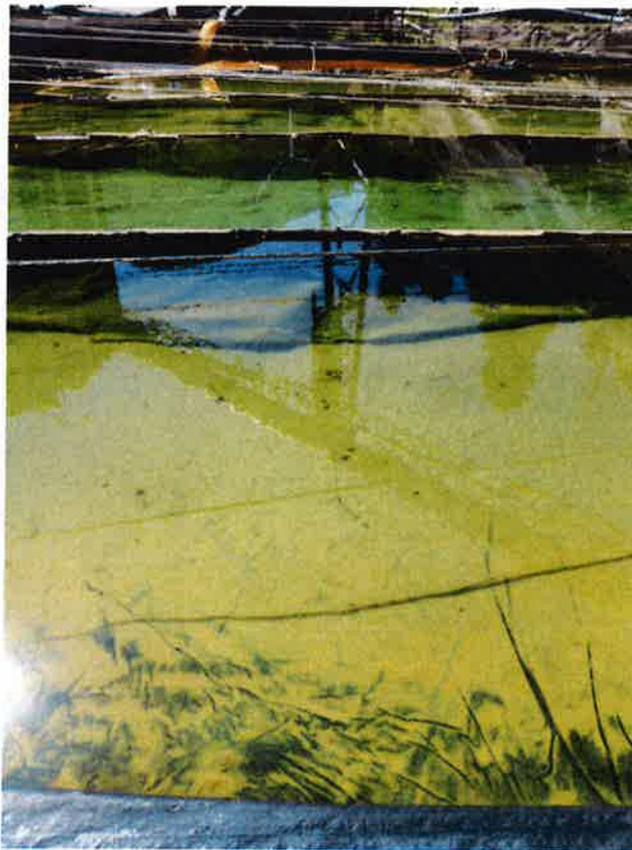


Photo #8: Final cell of the Genwal iron treatment system. At top of picture is the iron laden water in the first cell of the system.



Photo #9: Discharge from final cell of the Genwal iron treatment system to Crandall Creek; Outfall 002



Photo #10: Sedimentation pond associated with Outfall 001. Drains the total disturbed area of the Genwal Mine

Dec. 2014

USEPA REGION 8 NPDES LAGOON INSPECTION CHECKLIST

NPDES PERMIT #: WT 1024368

INSPECTION DATE: 9/10/15

FACILITY: Crandall Canyon Mine

I. PERMIT VERIFICATION

- YES NO N/A Inspection observations verify information contained in permit.
- Yes No N/A 1. Current copy of permit on site.
 - Yes No N/A 2. Name, mailing address, contact, and phone number are correct in PCS. If not, indicate correct information on Form 3560.
 - 3. Brief description of the wastewater treatment plant:
1 Sed pond, mine water to treatment system -
five cells => flocculant => coagulant => 1st cell => aerated
=> goes back to cell #1 => cells 2, 3, 4 & 5 => discharged.
 - Yes No N/A 4. Facility is as described in permit. If not, what is different? _____
 - Yes No N/A 5. EPA/State has been notified of any new, different, or increased loading to the WWTP.
 - Yes No N/A 6. Number and location of discharge points are as described in the permit.
 - Yes No N/A 7. Name of receiving water(s) is/are correct.

Comments:

Sudge is unremoved out & sent Barrow Pond. to dry.

II. RECORDKEEPING AND REPORTING EVALUATION

- YES NO N/A Records and reports are maintained as required by permit.
- Yes No N/A 1. All required information is current, complete, and reasonably available.
 - Yes No N/A 2. Information is maintained for the required 3 year period.
 - Yes No N/A 3. Sampling and analysis data are adequate and include:
 - Yes No N/A a. Dates, times, locations of sampling.
 - Yes No N/A b. Initials of individual performing sampling.
 - Yes No N/A c. Referenced analytical methods and techniques in conformance with 40 CFR Part 136.
 - Yes No N/A d. Results of analyses and calibration.
 - Yes No N/A e. Dates of analyses (and times if required by permit).
 - Yes No N/A f. Initials of person performing analyses.
 - Yes No N/A g. Instantaneous flow at grab sample stations.

- Yes No N/A
- Yes No N/A
- Yes No N/A

4. Sampling and analysis completed on parameters specified in permit.
5. Sampling and analysis done in frequency specified by permit.
6. ~~Lagoon~~ inspection logs are being completed at the frequency specified by permit.

Comments:

YES NO N/A

DMR completion meets the self-monitoring reporting requirements.

Yes No N/A

1. Monitoring for required parameters is performed more frequently than required by permit. Parameter(s) _____

Yes No N/A

2. Analytical results are consistent with the data reported on the DMRs.

Yes No N/A

3. All data collected are summarized on the DMR.

Yes No N/A

4. Monthly, weekly, and/or daily average ^{loading TDS} loading values are calculated properly and reported on the DMR. (Effluent loadings are calculated using effluent flow.)

Yes No N/A

5. The geometric mean is calculated and recorded for fecal coliform data.

Yes No N/A

6. Weekly and monthly averaging is calculated properly and reported on the DMR.

Yes No N/A

7. The maximum and minimum values of all data points are reported properly.

Yes No N/A

8. The number of exceedances column (No. Ex.) is completed properly.

Comments:

III. COLLECTION SYSTEM

NA

YES NO N/A

Collection system properly maintained.

Yes No N/A

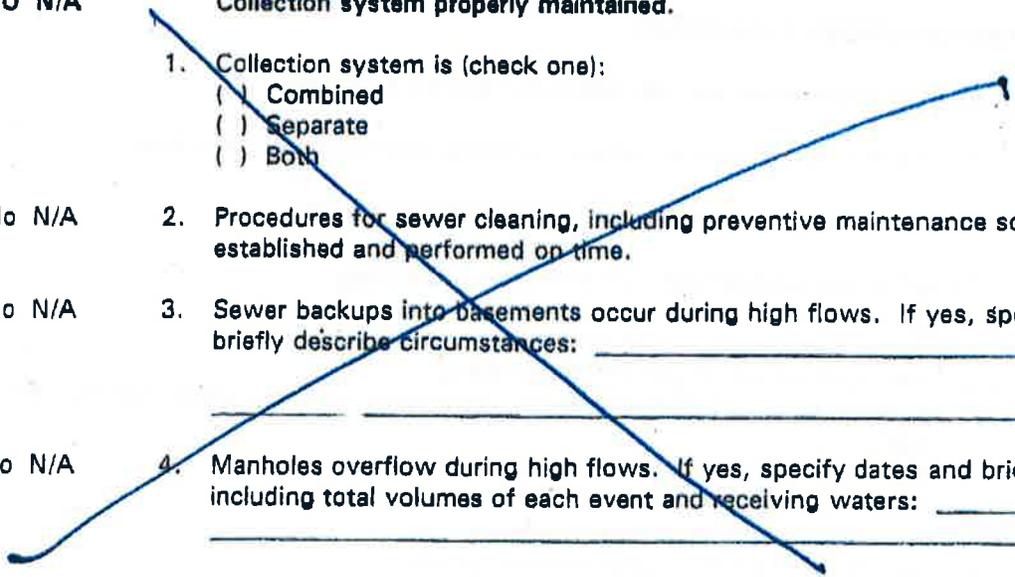
1. Collection system is (check one):
 Combined
 Separate
 Both
2. Procedures for sewer cleaning, including preventive maintenance schedules, are established and performed on time.

Yes No N/A

3. Sewer backups into basements occur during high flows. If yes, specify dates and briefly describe circumstances: _____

Yes No N/A

4. Manholes overflow during high flows. If yes, specify dates and briefly describe, including total volumes of each event and receiving waters: _____



- Yes No N/A
5. Bypasses have occurred from the collection system, including lift stations, in the last five years. If yes, specify dates and briefly describe, including total volumes of each event and receiving waters: _____
- Yes No N/A
6. The community has a sump pump ordinance.
- Yes No N/A
7. Testing for inflow/infiltration has occurred in the last five years.
- Yes No N/A
8. Sources of inflow/infiltration have been identified. If yes, please describe: _____
- Yes No N/A
9. Measures are being taken to correct inflow/infiltration problems. If yes, please describe: _____
- Yes No N/A
10. The collection system, or portions of it, have been upgraded since the last inspection. If yes, please describe: _____
- Comments: _____

IV. FACILITY SITE REVIEW

- YES NO N/A Treatment facility properly operated and maintained.**
- Yes No N/A 1. Standby power or other equivalent provision is provided. Specify type:
Have 6 to 8 hrs before impact
- Yes No N/A 2. Facility has an alarm system for power or equipment failures. What kind of problems has the facility experienced due to power failures? _____
- Yes No N/A 3. Treatment control procedures are established for emergencies.
- Yes No N/A 4. Facility can be by-passed (internal, collection system, total). Describe by-pass procedures: _____
- Yes No N/A 5. Regulatory agency was notified of any bypassing (treated and/or untreated).
Dates: _____
- Yes No N/A 6. ~~WWTP~~ has adequate capacity to ensure against hydraulic ~~and/or organic~~ overloads.

- Yes No N/A 7. All treatment units, other than back-up units, are in service. If not, what and why?

- Yes No N/A 8. O&M manual available and up-to-date.
- Yes No N/A 9. Procedures for plant O&M, including preventive maintenance schedules, are established and performed on time. *Redundancy in system + spare parts.*
- Yes No N/A 10. Adequate spare parts and supplies inventory (including flow meters) are maintained, as well as major equipment specifications and/or repair manuals.
- Yes No N/A 11. Up-to-date maintenance and repair records are kept for major pieces of equipment.
- Yes No N/A 12. Lagoon is being properly maintained.
 Yes No N/A a. Locks, gates, fences, and sign are intact.
 Yes No N/A b. Vegetation is mowed on the inside, outside slopes and top of dikes.
 Yes No N/A c. Outside toe of dikes show no evidence of seepage and/or rodent damage.
 Yes No N/A d. Inside slopes of dikes show no evidence of erosion and/or rodent damage.
 Yes No N/A e. Cattails and/or bushes and/or trees are not growing in the lagoons.
- Yes No N/A 13. Number of qualified operators and staff.
 How many? Certification Level

- Yes No N/A 14. Certification level meets State requirement?
- Yes No N/A 15. What procedures or practices are used to train new operators? OJT

Comments:

V. SAFETY EVALUATION

- YES NO N/A Facility has the necessary safety equipment.**
- Yes No N/A 1. Procedures are established for identifying out-of-service equipment. What are they?

- Yes No N/A 2. Personal protective clothing provided (safety helmets, ear protectors, goggles, gloves, rubber boots with steel toes, eye washes in labs).
- Yes No N/A 3. Laboratory safety devices (eyewash and shower, fume hood, proper labeling and storage, pipette suction bulbs) available.
- Yes No N/A 4. Plant has general safety structures such as rails around or covers over tanks, pits, or

wells. Plant is enclosed by a fence.

Yes No N/A

5. Portable hoists for equipment removal available.

Yes No N/A

6. All electrical circuitry enclosed and identified.

Yes No N/A

7. Chlorine safety is adequate and includes:

Yes No N/A

a. NIOSH-approved 30-minute air pack.

Yes No N/A

b. All standing chlorine cylinders chained in place.

Yes No N/A

c. All personnel trained in the use of chlorine.

Yes No N/A

d. Chlorine repair kit.

Yes No N/A

e. Chlorine leak detector tied into plant alarm system.

Yes No N/A

f. Ventilation fan with an outside switch.

Yes No N/A

g. Posted safety precautions.

Yes No N/A

8. Warning signs (no smoking, high voltage, nonpotable water, chlorine hazard, watch-your-step, and exit) posted.

Yes No N/A

9. Gas/explosion controls such as pressure-vacuum relief valves, no smoking signs, explosimeters, and drip traps present near anaerobic digesters, enclosed screening or degritting chambers, and sludge-piping or gas-piping structures.

Yes No N/A

10. Emergency phone numbers listed.

Yes No N/A

11. Plant is generally clean, free from open trash areas.

Yes No N/A

12. MSDS sheets, if required, are accessible by employees.

Comments:

VI. FLOW MEASUREMENT

YES NO N/A

Flow Measurement Meets the Requirements and Intent of Permit

In line meter.

Type of primary flow measurement device: ~~Flow meter~~ In line meter

Yes No N/A

1. Primary flow measuring device is properly installed and maintained.

Where? 12" main line from mine

Yes No N/A

2. Flow measured at each outfall. Number of outfalls: 2

Yes No N/A

3. Frequency of routine inspection of primary flow device by operator:

1 day every 3 months

Yes No N/A

4. Frequency of routine cleaning of primary flow device by operator:

1 / week every three months.

Yes No N/A

5. Influent flow is measured before all return lines.

Yes No N/A

6. Effluent flow is measured after all return lines.

Yes No N/A

7. Proper flow tables are used by facility personnel.

Yes No N/A

8. Design flow: 1.5 mgd.

Yes No N/A

9. Flow measurement equipment adequate to handle expected ranges of flow rate.

Comments:

VII. PERMITTEE SAMPLING EVALUATION

YES NO N/A

Sampling meets the requirements and intent of the permit.

Yes No N/A

1. Samples are taken at sampling location specified by permit.

Yes No N/A

2. Locations are adequate for representative samples.

Yes No N/A

3. Flow proportioned samples are obtained.

Yes No N/A

4. Permittee is using method of sample collection required by permit.

Required method: _____

If not, method being used is:

Grab

Manual

Automatic composite

Yes No N/A

5. Sample collection procedures adequate and include:

Yes No N/A

a. Sample refrigeration during compositing.

Yes No N/A

b. Proper preservation techniques.

c. Containers in conformance with 40 CFR 136.3.

Specify any problems: None.

Comments:

Facility: *General Resins, Inc*

Month of DMR: *12/2014*

Outfall: *002*

Parameter	Req. Monitoring Frequency	Actual Monitoring Frequency	Type of Permit Violation
<i>Flow</i>	<i>1/30</i>	<i>1/30</i>	<i>None</i>
<i>TSS</i>	<i>1/30</i>	<i>1/30</i>	<i>None</i>
<i>T-Fe</i>	<i>1/30</i>	<i>1/30</i>	<i>None</i>
<i>TDS</i>	<i>1/30</i>	<i>1/30</i>	<i>None</i>
<i>T-Al</i>	<i>1/30</i>	<i>1/30</i>	<i>Exceeded, 0.927 *</i>
<i>pH</i>	<i>1/30</i>	<i>1/30</i>	<i>None</i>
<i>DO</i>	<i>1/30</i>	<i>1/30</i>	<i>None **</i>
<i>B&G</i>	<i>1/30</i>	<i>1/30</i>	<i>None</i>
<i>Sanitary Waste</i>	<i>1/30</i>	<i>1/30</i>	<i>None</i>
<i>Chronic WET</i>	<i>Semi-annual</i>	<i>Semi-annual</i>	<i>None</i>

* Aluminum exceed 0.927 mg/L. This parameter will be included with limits in the next permit issuance.

** Difference between calculated DO and DO entered on DMR form. Why?

Facility: <i>Genial Resources Inc</i>				Month of DMR: <i>December 2014</i>				Outfall: <i>002</i>			
Parameter	Sampling		Analysis		Holding time exceeded	Bench sheet reported value	Reported values (DMR)		Calculated values from Insp.		
	Date	Time	Date	Time			30 day avg	Daily max	30 day avg	Daily max	
Flow	Read off meter:										
TSS	12/16	1139	12/18	1300	No	8	5	8	8	8	
TFe	12/16	1139	12/22	1200	No	0.31 mg/L	0.31	0.31	0.31	0.31	
TDS	12/16	1139	12/19	1300	No	552 mg/L	—	—	—	552	
FAl	12/16	1139	12/22	1200	No	1.03 mg/L	—	1.03	—	1.03	
DO	12/12	1430	12/12	1430	No	8.75 mg/L	—	8.87	—	8.75	
ORP	12/16	1139	12/19	0730	No	<5 mg/L	—	45	—	25	
pH	12/16	1139	12/16	1139	No	7.8 S.U.	7.8	7.8	7.8	7.8	
Sanitary Waste	12/16	1139	12/16	1139	No	0	—	—	—	—	
UVIS ORP	12/16	1139	12/16	1139	No	0	—	—	—	—	

TDS Sum A = 1.08 tons From Dme - Sum A TDS = 1.08 tons

Calculated

PERMITTEE N (Include Facility Name/Location if Different)
ANWAL RESOURCES, INC

NATIONAL POLLUTANT DISCHARGE INFORMATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)

approved.
 OMB No. 2040-0004

ADDRESS
 P.O. BOX 910
 EAST CARBON, UT 84520

UT0024368
 PERMIT NUMBER

001-A
 DISCHARGE NUMBER

18" PIPE EAST SIDE OF SEDIMENT POND
 EXTERNAL OUTFALL

FACILITY
 LOCATION
 CRANDALL CANYON MINE
 MANTH-LASAL NATIONAL FOREST
 HUNTINGTON, UTAH

MONITORING PERIOD
 FROM TO
 MO DAY YEAR MO DAY YEAR
 12 01 2014 12 31 2014

Check here if No Discharge

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE		
	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS	
Flow, treatment plant	*****	*****	MGD	*****	*****	*****					
50050 1 0 Effluent Gross Value	1.5 30 DAY AVG	Req. Min. DAILY MAX						Monthly	CONTIN		
pH	*****	*****		*****	*****						
00400 1 0 0 Effluent Gross Value	*****	*****		*****	*****	SU		Monthly	GRAB		
Solids, Total Suspended	*****	*****		*****	*****			Monthly	GRAB		
00530 1 0 0 Effluent Gross Value	*****	*****		*****	*****	MG/L		Monthly	GRAB		
Oil & Grease	*****	*****		*****	*****			Monthly	GRAB		
00556 1 0 Effluent Gross Value	*****	*****		*****	*****	MG/L		Monthly	GRAB		
Iron, Total (as Fe)	*****	*****		*****	*****			Monthly	GRAB		
01045 1 0 0 Effluent Gross Value	*****	*****		*****	*****	MG/L		Monthly	GRAB		
Aluminum, Total	*****	*****		*****	*****			Monthly	GRAB		
01105 1 0 Effluent Gross Value	*****	*****		*****	*****	MG/L		Monthly	GRAB		
Solids, Total Dissolved	*****	*****		*****	*****			Monthly	GRAB		
70295 1 0 0 Effluent Gross Value	*****	*****		*****	*****	MG/L		Monthly	GRAB		
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER David Hibbs, President and CEO TYPED OR PRINTED											
COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) NO DISCHARGE											
							435	888-4000	1	22	2015
							AREA CODE	NUMBER	MO	DAY	YEAR

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my duty and the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

Note: If TDS concentration for 30 day average exceeds 500 mg/L, salinity offset will occur, thus compliance is maintained.

PERMITTEE NAME: **ENWAL RESOURCES, INC**
(Include Facility Name/Location if Different)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)

approved
 OMB No. 2040-0004

ADDRESS: **P.O. BOX 910
 EAST CARBON, UT 84520**

UT0024368
 PERMIT NUMBER

001-A
 DISCHARGE NUMBER

**18" PIPE EAST SIDE OF SEDIMENT POND
 EXTERNAL OUTFALL**

FACILITY LOCATION: **CRANDALL CANYON MINE
 MANTHALASAL NATIONAL FOREST
 HUNTINGTON, UTAH**

MONITORING PERIOD:
 FROM: MO 12 DAY 01 YEAR 2014 TO MO 12 DAY 31 YEAR 2014

Check here if No Discharge

PARAMETER	QUANTITY OR LOADING		QUALITY OF CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE			
Sanitary Waste								
45614 1 0 Effluent Gross Value		0 DAILY MAX	YES=1 NO=0				Monthly	VISUAL
Oil & Grease, visual			YES=1 NO=0				Twice Per Month	VISUAL
84006 R 0 Effluent Gross Value		0 DAILY MAX						
Oxygen, dissolved								
00300 1 0 0 Effluent Gross Value							Monthly	GRAB
NO DISCHARGE								
NAME/TITLE	PRINCIPAL EXECUTIVE OFFICER							
David Hibbs, President and CEO	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT							
TYPE OR PRINTED	OFFICER OR AUTHORIZED AGENT							
COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)								
	435	888-4000	1	22	2015			
	AREA CODE	NUMBER	MO	DAY	YEAR			

PERMITTEE NAME: ADDRESS (include Facility Name/Location if Different)

ANWAL RESOURCES, INC

P.O. BOX 910
EAST CARBON, UT 84520

FACILITY LOCATION: CRANDALL CANYON MINE
MANTH-LASAL NATIONAL FOREST
HUNTINGTON, UTAH

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE No. ... ORING REPORT (DMR)

UT0024368
PERMIT NUMBER

002-A
DISCHARGE NUMBER

MINE WATER DISCHARGE
EXTERNAL OUTFALL

Check here if No Discharge

MONITORING PERIOD			
MO	DAY	YEAR	TO
12	01	2014	31
12	31	2014	2014

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE					
	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS				
Flow, treatment plant	0.46944	0.66384	MGD	*****	*****	*****	0	Monthly	CONTIN					
50050 1 0 Effluent Gross Value	1.5 30 DAY AVG	Req. Min. DAILY MAX	*****	*****	*****	*****	0	Monthly	CONTIN					
pH	*****	*****	*****	7.8	7.8	7.8	0	Monthly	GRAB					
00400 1 0 0 Effluent Gross Value	*****	*****	*****	6.5 MIN	9.0 DAILY MAX	MG/L	0	Monthly	GRAB					
Solids, Total Suspended	*****	*****	*****	8	8	8	0	Monthly	GRAB					
00530 1 0 0 Effluent Gross Value	*****	*****	*****	25 DAY AVG	70 DAILY MAX	MG/L	0	Monthly	GRAB					
Oil & Grease	*****	*****	*****	*****	<5	MG/L	0	Monthly	GRAB					
00556 1 0 Effluent Gross Value	*****	*****	*****	*****	10 DAILY MAX	MG/L	0	Monthly	GRAB					
Iron, Total (as Fe)	*****	*****	*****	0.31	0.31	0.31	0	Monthly	GRAB					
01045 1 0 0 Effluent Gross Value	*****	*****	*****	*****	1.24 DAILY MAX	MG/L	0	Monthly	GRAB					
Aluminum, Total	*****	*****	*****	*****	1.03	MG/L	0	Monthly	GRAB					
01105 1 0 Effluent Gross Value	*****	*****	*****	*****	Req. Min. DAILY MAX	MG/L	0	Monthly	GRAB					
Solids, Total Dissolved	*****	*****	*****	*****	552	552	0	Monthly	GRAB					
70295 1 0 0 Effluent Gross Value	*****	*****	*****	*****	1200 DAILY MAX	MG/L	0	Monthly	GRAB					
<small>Verify under penalty of law that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who made the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</small>														
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT							TELEPHONE	DATE			
David Hibbs, President and CEO			TYPED OR PRINTED							435	888-4000	1	22	2015
COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)										AREA CODE	NUMBER	MO	DAY	YEAR

Note: if TDS concentration for 30 day average exceeds 500 mg/L, salinity offset will occur. Memo attached for Iron Exceedence

PERMITTEE NAME: ADDRESS (Include Facility Name and location if Different)
 ENVIRONMENTAL RESOURCES, INC

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE NUMBER: 002-A

approved.
 OMB: 2040-0004

ADDRESS: P.O. BOX 910
 EAST CARBON, UT 84520

UT0024368
 PERMIT NUMBER

MINE WATER DISCHARGE
 EXTERNAL OUTFALL

FACILITY LOCATION: CRANDALL CANYON MINE
 MANTH-LASAL NATIONAL FOREST
 HUNTINGTON, UTAH

MONITORING PERIOD					
MO	DAY	YEAR	MO	DAY	YEAR
12	01	2014	12	31	2014

Check here if No Discharge

PARAMETER	QUANTITY OR LOADING			QUALITY OF CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE		
	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS	
Sanitary Waste 45614 10 Effluent Gross Value	MEASUREMENT	0	YES-FI NO-0				0	Monthly	VISUAL		
	PERMIT REQUIREMENT	DAILY MAX						Monthly	VISUAL		
Oil & Grease, visual 84006 R 0 Effluent Gross Value	MEASUREMENT	0	YES-FI NO-0				0	Twice Per Month	VISUAL		
	PERMIT REQUIREMENT	DAILY MAX						Twice Per Month	VISUAL		
Oxygen, dissolved 00300 1 0 0 Effluent Gross Value	MEASUREMENT			8.87			0	Monthly	GRAB		
	PERMIT REQUIREMENT			5.5 Minimum		MGL		Monthly	GRAB		
NAME/TITLE	PRINCIPAL EXECUTIVE OFFICER										
David Hibbs, President and CEO	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT										
COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)							435	888-4000	1	22	2015
TYPED OR PRINTED							AREA CODE	NUMBER	MO	DAY	YEAR

PERMITTEE NAME: ADDRESS (Include Facility Name/Location if Different)
GENWAL RESOURCES, INC
P.O. BOX 910
EAST CARBON, UT 84520

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)

approved.
 OMB No. 2040-0004

UT0024368
 PERMIT NUMBER

SUM-A
 DISCHARGE NUMBER

TDS TOTAL FOR ALL OUTFALLS
 EXTERNAL OUTFALL

Check here if No Discharge

MONITORING PERIOD		MO		DAY		YEAR	
FROM	TO	12	01	2014	31	2014	
12	01	2014	12	31	2014		

FACILITY LOCATION
CRANDALL CANYON MINE
MANTLASAL NATIONAL FOREST
HUNTINGTON, UTAH

PARAMETER	QUANTITY OR LOADING			QUALITY OF CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
Solids, Total Dissolved	MEASUREMENT	1.08		*****	*****	*****	See	Monthly	GRAB
	PERMIT REQUIREMENT	*****	1.08	*****	*****	*****	Note	Monthly	GRAB
70295 100 Effluent Gross Value	MEASUREMENT	*****	1.0 DAILY MAX	*****	*****	*****			
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****			
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Analysis Report

December 23, 2014

GENWAL RESOURCES INC
794 "C" CANYON ROAD
EAST CARBON UT 84520

Page 1 of 1

Client Sample ID: UPDES 002
Date Sampled: Dec 16, 2014
Date Received: Dec 17, 2014
Product Description: WATER

Sample ID By: Genwal Resources Inc.
Sample Taken At: UPDES 002
Sample Taken By: KO
Time Received: 0734
Time Sampled: 1139
Mine: 8
Site: 40

Comments: Dissolved Metals Filtered at Lab

SGS Minerals Sample ID: 782-1427405-001

Table with columns: TESTS, RESULT, UNIT, METHOD, REPORTING LIMIT, DATE, ANALYZED TIME, ANALYST. Rows include Oil and Grease, Alkalinity, Bicarbonate Alkalinity, Carbonate Alkalinity, Total Suspended Solids, Total Dissolved Solids, Sulfate, SO4, and METALS BY ICP (Aluminum, Iron, Manganese).

Handwritten signature of Lab Supervisor

Domenic Ibanez
Lab Supervisor

SGS North America Inc. Minerals Services Division
2035 North Airport Road Huntington UT 84528 t (435) 653-2311 f (435)-653-2438 www.sgs.com/minerals

Member of the SGS Group (Société Générale de Surveillance)

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Candall 002 217 11-24-14
 Low x PH 7.64
 Metal x Temp 8.9°C
 c/o x DO 9.70
 0.039 Cond 9.13
 0.23

WF U9-1 11-26-14 9:15
 Low x Temp 73°F
 Metal x PH 7.04
 DO 2.02
 Cond 1800

TSS 11-26-14 9:35
 x

DECEMBER 2014

WF ON 12-4-14 12:55
 No Flow

CRANEALL ON 12-5-14 8:00
 NO FLOW

WF ON 12-12-14 2:15
 No Flow

WF ON 12-12-14 2:20
 No Flow

CRANEALL ON 12-16-14 11:39
 PH 7.8
 Temp 8.9°C
 Cond 8.99
 DO 9.75

CRANEALL PRO-CELL 12-16-14 11:45
 PH 7.60

CRANEALL PRO-CELL 12-16-14 11:45
 Cond 8.99
 DO 9.75

High Wall Seep 12-16-14 11:33
 2:50 PM