RECORD OF PROCEEDINGS

MINUTES OF A REGULAR MEETING OF
THE BOARD OF DIRECTORS OF THE
GREATROCK NORTH WATER AND SANITATION DISTRICT
HELD
FEBRUARY 4, 2014

A regular meeting of the Board of Directors (referred to hereafter as "Board") of the Greatrock North Water and Sanitation District (referred to hereafter as "District") was convened on Tuesday, February 4, 2014 at 5:30 P.M., at United Power, 500 Cooperative Way, Brighton, Colorado. The meeting was open to the public.

ATTENDANCE

Directors In Attendance Were:
Terry Krayenhagen
Robert William Fleck
Jeffrey Polliard
Brian K. Rogers
John D. Wyckoff

Also In Attendance Were:
Lisa A. Johnson; Special District Management Services, Inc.

Jennifer Gruber Tanaka, Esq.; White, Bear & Ankele, P.C.

Brad Simons, P.E.; TST Inc. of Denver

Anthony Ortolani; Timber Line Electric & Control Corporation

Jeff Rabas; Ramey Environmental Compliance, Inc.

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST

Disclosures of Potential Conflicts of Interest: Attorney Tanaka advised the Board that, pursuant to Colorado law, certain disclosures may be required prior to taking official action at the meeting. The Board reviewed the Agenda for the meeting, following which Directors Krayenhagen, Fleck, Rogers, Polliard and Wyckoff each confirmed that they had no conflicts of interest in connection with any of the matters listed on the Agenda.

ADMINISTRATIVE MATTERS

Agenda: Ms. Johnson distributed for the Board's review and approval a proposed Agenda for the District's regular meeting.

Following discussion, upon motion duly made by Director Polliard, seconded by Director Rogers and, upon vote, unanimously carried, the Agenda was approved, as amended.

Board of Directors' Report: The Directors did not have a report for this meeting.

Manager's Report: Ms. Johnson presented and the Board reviewed the February Manager's Report. A copy of the report is attached hereto, and incorporated herein, by this reference.

CONSENT AGENDA

Consent Agenda: The Board considered the following actions:

- Approve Minutes from the January 7, 2014 regular meeting.

- Ratify approval of payment of claims through the period ending January 13, 2014, as follows:

General Fund	$ 31,460.07
Debt Service Fund	$ 150.00
Capital Projects Fund	$ 390.00
Total Claims:	**$ 32,000.07**

- Approval of payment of claims through the period ending February 4, 2014, as follows:

General Fund	$ 19,985.03
Debt Service Fund	$ 200.00
Capital Projects Fund	$ 65.00
Total Claims:	**$ 20,250.03**

- Consider acceptance of cash position schedule and unaudited financial statements through the period ending December 31, 2013.

Following discussion, upon motion duly made by Director Wyckoff, seconded by Director Rogers and, upon vote, unanimously carried, the Board approved the consent agenda items.

WATER MATTERS

Monthly Report on Review of Water Resume: The Board reviewed the correspondence received from Attorney Poznanovic. He recommended and has completed a statement of opposition in Water Court Case No. 13CW3143.

Water Court Application Case No. 13CW3108: The Board reviewed the correspondence from White and Jankowski. The District was successful in intervening in Water Court Application Case No. 13CW3108. Attorney Davenport will keep the Board updated on the process.

ENGINEER'S REPORT

Engineer's Report: Mr. Simons presented the Engineer's Report to the Board. A copy of the report is attached hereto and is incorporated herein by this reference.

Evaporation Ponds:

Reclassification of Box Elder Creek: Mr. Simons continues to gather the historical information needed in order to approach the Colorado Department of Public Health and Environment ("CDPHE") regarding a reclassification of Box Elder Creek to allow discharge of concentrate water.

Proposal from Timber Line Electric and Control Corporation ("TLECC") for Generator Status Integration into SCADA: Mr. Ortolani explained the proposal from TLECC. The Board discussed the proposal and asked TLECC to provide a revised proposal to install phase loss monitors at all of the facilities.

Mr. Ortolani also mentioned that he has almost completed the preventative maintenance reports on all of the facilities. He will finalize the report with recommendations and transmit to Ms. Johnson for distribution to the Board.

Water Production Versus Billing Analyses for 2013: Mr. Simons presented and the Board reviewed the analyses.

OPERATIONS AND MAINTENANCE MATTERS

Operations and Maintenance Update and Completed Work Order List: The Board reviewed the operations and maintenance update and the completed work order list. A copy of the report is attached hereto and incorporated herein by this reference.

Monthly Flow Report: The Board reviewed the monthly flow report covering December 6, 2013 through January 5, 2014.

Water Quality Issues in Box Elder Creek Ranch and Rocking Horse Farms: The Board reviewed the monthly water quality report.

Proposal from Ramey Environmental Compliance, Inc. ("REC") to Locate Curb Stops in Rockinghorse Farms: The Board reviewed the proposal from REC to locate curb stops that were undiscovered using a metal detector in Rockinghorse Farms.

Following discussion, upon motion duly made by Director Polliard, seconded by Director Wyckoff and, upon vote, unanimously carried, the Board approved the proposal from REC and corresponding First Addendum to the Independent Contractor Agreement (Operator in Responsible Charge and Operation Services) between the District and REC to locate curb stops that were undiscovered using a metal detector in Rockinghorse Farms.

Proposal from Ramey Environmental Compliance, Inc. to Inspect Curb Stops in Box Elder Creek Ranch and Greatrock North: The Board reviewed the proposal from REC to inspect curb stops in Box Elder Creek Ranch and Greatrock North.

Following discussion, upon motion duly made by Director Wyckoff, seconded by Director Polliard and, upon vote, unanimously carried, the Board approved the proposal from REC and corresponding Second Addendum to the Independent Contractor Agreement (Operator in Responsible Charge and Operation Services) between the District and REC to inspect curb stops in Box Elder Creek Ranch and Greatrock North.

Proposal from Dan's Custom Construction, Inc. to Re-Locate Water Meters in Rockinghorse Farms: The Board reviewed the proposal from Dan's Custom Construction, Inc. to relocate water meters that currently reside in basements of homes in Rockinghorse Farms to a meter pit and repair curb stops. The Board discussed the proposal and deferred action at this time.

LEGAL MATTERS

Update on May 6, 2014 Election: Attorney Tanaka gave an update on the election process and discussed the status of House Bill 14-1164. The Board discussed election deadlines and submittal of Self-Nomination and Acceptance forms.

COMMUNITY COMMENTS

Community Comments: There were no community comments.

EXECUTIVE SESSION

EXECUTIVE SESSION - Negotiations with Third Parties and Legal Advice on Same (§§24-6-402(4)(b) and (e), C.R.S.): Pursuant to Sections 24-6-402(4)(b) and (e), C.R.S., upon motion duly made by Director Polliard, seconded by Director Rogers and, upon an affirmative vote of at least two-thirds of the quorum present, the Board convened in executive session at 7:45 p.m. for the purpose of discussing negotiations and receiving legal advice, as authorized by Sections 24-6-402(4)(b) and (e), C.R.S.

Furthermore, pursuant to Section 24-6-402(2)(d.5) (II)(B), C.R.S., no record will be kept of those portions of the executive session that, in the opinion of the District's attorney, constitute privileged attorney-client communication pursuant to Section 24-6-402(4)(b), C.R.S.

The Board reconvened in regular session at 8:15 p.m.

The Board reviewed and considered approval of an Engagement Letter with Murphy & Decker, P.C.

Following discussion, upon motion duly made by Director Rogers, seconded by Director Polliard and, upon vote, unanimously carried, the Board approved the engagement of Murphy & Decker, P.C. for an amount not to exceed $1,500.

ADJOURNMENT

There being no further business to come before the Board at this time, upon motion duly made, seconded and, upon vote, unanimously carried, the meeting was adjourned.

Respectfully submitted,

By _____
Secretary for the Meeting

THESE MINUTES APPROVED AS THE OFFICIAL FEBRUARY 4, 2014 MINUTES OF THE GREATROCK NORTH WATER AND SANITATION DISTRICT BY THE BOARD OF DIRECTORS SIGNING BELOW:

_____
Terry Krayenhagen

_____
Robert William Fleck

_____
Jeffrey L. Polliard

_____
Brian K. Rogers

_____
John D. Wyckoff

Attorney Statement
REGARDING PRIVILEGED ATTORNEY-CLIENT COMMUNICATION

Pursuant to Section 24-6-402(2)(d.5)(II)(B), C.R.S., I attest that, in my capacity as the attorney representing Greatrock North Water and Sanitation District, I attended the executive session meeting Greatrock North Water and Sanitation District convened at 7:45 p.m. on February 4, 2014 for the purpose of discussing negotiations with third parties and receiving legal advice as authorized by Sections 24-6-402(4)(b) and (e), C.R.S. I further attest it is my opinion that all of the executive session discussion constituted a privileged attorney-client communication as provided by Section 24-6-402(4)(b), C.R.S. and, based on that opinion, no further record, written or electronic, was kept or required to be kept pursuant to Section 24-6-402(2)(d.5)(II)(B), C.R.S.

Signed _____
Jennifer Gruber Tanaka, Esq.

Dated: February 4, 2014

GREATROCK NORTH
WATER & SANITATION DISTRICT

Date: January 28, 2014

To: Greatrock North Water and Sanitation District, Board of Directors

From: Lisa A. Johnson, District Manager

Re: February 4, 2014 Manager's Report

Agenda Action Items

II.A. Consent Agenda

1. January 7, 2014 minutes.
2. January 2014 payables.
3. December 31, 2013 financial statements

I recommend approval of the consent agenda items.

VI.D. Consider Approval of proposal from REC to locate curb stops that were undetectable on previous visit in RHF.

REC has provided a proposal to locate the curb stops in RHF by attaching a locating device to the outside water faucets. The cost would be billed at $60/hour with a 15-20 minute limit at each location.

I recommend approval of the proposal.

VI.E. Consider approval of proposal from REC to locate and exercise curb stops in GRN and BECR.

REC has provided a proposal to locate and exercise the curb stops in GRN and BECR. The cost would be billed at $60/hour with a 15-20 minute limit at each location.

I recommend approval of the proposal

Updates on Other District Related Items

Weekly meetings with Operations Staff – Mr. Rabas and I are meeting weekly to discuss on-going operations issues, concerns, and projects.

Items discussed at the January meetings:

-Request for Mr. Rabas to review daily SCADA reports in addition to the daily review by the operator. I asked Mr. Rabas to look for trends of information that may indicate an issue such as the use of the RO plant during on-peak hours.

-Informed Mr. Rabas that his staff may be required to observe and oversee the BECR pump stations modifications project once scheduled.

-Informed Mr. Rabas that TLECC will attend the February board meeting and asked Mr. Rabas to attend the meeting as well.

-Discussed the RHF tank re-paining project. TST will coordinate project and REC will provide oversight during the work.

-Reviewed the actions items status matrix.

-Requested and received 2014 monitoring schedule.

-Received proposal to install pipe hangers/supports for BECR facility and gave approval to purchase and install. Total cost = $480.

-Requested and received proposal to install meter pit, meter, etc., and repair curb stops in RHF.

-Requested a proposal to inspect curb stops in GRN and BECR.

-Requested a written protocol to address future water leaks.

-Discussed inspecting the water service line for new homes in BECR.

Conducted January Facilities Inspection

Director Wyckoff and I inspected the facilities on January 24, 2014. Generally, the facilities are in excellent condition. A few issues that I asked Mr. Rabas or Mr. Simons to address are below:

GRN Facility

-Request timeline for repair of siding on pump house bldg.
-Remove plastic pipes located near smaller building if no longer needed.
-Confirm confined space equipment is located in one of the facilities.

BECR Facility

-Is there a market for the used pumps that will be removed from BECR?

While on our inspection, Director Wyckoff and I traveled to the homes being built in Valley View Estates. There are approximately 3-4 new homes in some phase of construction in the sub-division. Director Wyckoff asked for a brief summary of the history as to why this sub-division was not included into the District. Attorney Tanaka provided the historical summary. I asked Mr. Sanchez to determine how the homes are being served with potable water. He confirmed that each home will be utilizing an individual well. I then asked if there would be any negative impact to the District. I should have a response prior to the meeting on this question.

TTC TST
CONSULTING ENGINEERS

GREATROCK NORTH WATER AND SANITATION DISTRICT
ENGINEER'S REPORT
January 27, 2014

Evaporation Ponds – Reclassification of Box Elder Creek

The project files at the Water Quality Control Division – "2007 Greatrock North WSD RO Conversion Project Design Submittal" – were associated with the introduction of Alluvial Well No. 1 to the system, Based upon representations made in a letter dated March 2, 2006, the improvements were to be restricted to the tap limit of 150 homes for the Box Elder Creek Ranch subdivision. The Division's approval for this project is dated December 14, 2006.

I have an unsigned construction approval application for "2007 CIP", dated June 18, 2008, and a resubmittal for "2007 CIP", dated September 8, 2008. A subsequent transmittal to the Division for "Alluvial Well No. 2", dated February 26, 2009, is presented as Change Order No. 1 to the construction approval application for "2007 CIP". On the JR Engineering's CDs, I located an unsigned/unstamped "Engineering Report for 2007 Capital Improvement Project", dated April 2008, which proposes to integrate the three independent water systems. This report indicates:

> "Effluent from the reverse osmosis treatment process will be discharged to the lined North Detention Pond, where treatment of nitrate will be achieved through detention time. Detained water above the pond elevation of 5069 will pass through the lined South Detention Pond and be pumped at a maximum flow rate of 35 gallons per minute from the southwest corner of the pond. The discharge will be piped to a point above the 100-year flood plain at a nearby drainage channel that flow east to Box Elder Creek."

An approval letter for Alluvial Well No. 2 was issued by the Division on February 4, 2010, but there is no reference to the "2007 CIP".

I have also located an unsigned transmittal letter to the Division for "2007 CIP – Discharge Permit Application for RO Process Water Discharge", dated May 22, 2008. The Division's Rationale for Permit Denial is dated December 8, 2008.

The Division is unable to locate any documents associated with a 2007 Capital Improvement Project (2007 CIP) submittal, except for the items associated with Alluvial Well No. 2.

Generator Status Integration

Anthony Ortolani, of Timber Line Electric and Control Corporation (TLECC), will attend the February Board meeting. I have asked him to provide more detail on the materials and field work (i.e. conduit and wiring) versus the programming. Depending upon any response I receive in advance of the meeting, I may be able to solicit a quotation from Dan LaCoe for the conduit installation at each site.

Water Accounting Review

As a result of the 2014 Water Rates Analysis performed in 2013, I asked Lisa Johnson to compile a summary of the 2013 water accounting. I will be prepared to discuss the information included with the Board packet if necessary.

Box Elder Creek Ranch Pump Stations

I have asked Wayne Cass, of Water Technology Group, to provide me with a schedule of the planned improvements to the Box Elder Creek Ranch Pump Station. I will report on the status of the activities at the Board meeting.

2013 Electrical Usage and Costs

Accompanying this report is a three-page comparison of the 2012 and 2013 electricity usage and costs for the District's four metered accounts. I will be prepared to discuss, but in summary, the District reduced its electricity usage by 25 percent in 2013 and realized a 31 percent reduction in charges. Of particular interest are the monthly reductions at the Rocking Horse Farms Pump Station once the booster pumps were changed out.

Rocking Horse Farms Tank Repainting

With the District Manager's authorization, TST has initiated an abbreviated bidding process for repainting the exterior of the Rocking Horse Farms tank. The work will include surface preparation, primer coat, and finish coat. The paint system will be confirmed though Tnemec, a leading manufacturer of high-performance coatings, then cost proposals will be solicited from a minimum of three companies. I expect to bring the proposals to the Board at the March meeting.

Other Activities

Blending to Improve Water Quality: On November 11, 2013 TLECC modified the control code to allow the RO run time to be operator defined. The timer now ranges from 0 to 1,440 minutes (24 hours) and is currently set at 240 minutes (4 hours) – up from the 30 minutes previously established. Ramey Environmental Compliance sampled for total dissolved solids at each tank site in January to determine the impact of this change in operation. Below are results:

	January 8, 2014	October 28, 2013
Box Elder Creek Ranch	553 mg/l TDS	677 mg/l TDS
Rocking Horse Farms	559 mg/l TDS	643 mg/l TDS
Greatrock North	575 mg/l TDS	594 mg/l TDS

Generator Alarm Relays: In addition to TLECC's services for the Generator Status Integration, , Cummins Rocky Mountain has proposed a total cost of $1,700 to furnish and install alarm output relays for the Greatrock North and Box Elder Creek Ranch generator sites.

Fire Hydrants in Box Elder Creek Ranch Subdivision: I have not been to the District since the December Board meeting. My last attempt was snowed out on January 23, but I will coordinate a visit to observe the grading in the area of the hydrants as recommended by Director Fleck.

Fire Pumps: I will review the operating conditions for the fire pumps at the Box Elder Creek Ranch and Rocking Horse Farms pump stations during my next visit to the District and determine if we can achieve commonality for the pumps and motors for future replacement opportunities.

March 2, 2006

J·R ENGINEERING
A Westrian Company

Attn: Tom Armitage
CDPHE/WQCD, B-2
4300 Cherry Creek Drive S
Denver, CO 80246-1530

RE: PWSID CO0101063
Great Rock North Water and Sanitation District
Box Elder Alluvial Well No. 1
JR Job Number 1000-4258.00

Dear Tom:

Enclosed is the construction application with associated exhibits for the new alluvial well water supply for the Box Elder Creek Ranch subdivision in the District. The new alluvial well and pipelines is an additional water supply that will be used for drinking water after processing through the existing water treatment plant that uses reverse osmosis for treating the raw water to primary and secondary drinking water standards. The existing ground water wells used for drinking water will remain in operation as a backup to this new water supply.

The Laramie-Fox Hills well LFH-3 will be pumped to Box Elder Creek for augmentation water to satisfy the requirements of the substitute water supply plan issued by the State Engineer and the pending water decree from Division 1 water court for this water supply. The Upper Arapahoe well will be blended with the RO treated alluvial water to replenish some of the components lost in the RO process in the alluvial water and keep the Langelier index close to zero.

The existing RO process will be used for the filtration of the surface water. The RO process exceeds the requirements for filtering surface water but is being used since the equipment is in place and the District can avoid a large capital expense of installing new filter equipment. Disposal of the concentrate is into the existing evaporation ponds and the tap limit of 150 homes remains in place for the development. There are currently about 120 homes on the system and the evaporation ponds are not as full as originally expected. We are currently able to evaporate all of the concentrate in the largest pond. We are reevaluating the ponds for their actual evaporation capacity in relation to our original design calculations.

12195 Mariposa St., Suite B, Westminster, CO 80234
720-272-9850 • Fax: 720-872-9853 • www.jrengineering.com

The District is looking into a discharge permit to mix the concentrate with the irrigation water and/or mix the concentrate with the augmentation water to the creek. The District will be filing for discharge permits later this year when water quality sampling can be performed from the operating irrigation system, RO concentrate, and augmentation water sources and mixing ratios can be determined.

The original copy of the construction application is at Tri-County Health for Signature. It will be forwarded to you after its signed and returned by Tri-County. The remaining signatures from the District have already been completed.

If you have any questions or need additional information for this application please contact us.

Respectfully Submitted,

JR Engineering, LLC

Giles N. Free, III, P.E.
Lead Project Engineer
Water Resources

Enclosures

STATE OF COLORADO

Bill Owens, Governor
Dennis E. Ellis, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
Phone (303) 692-2000
TDD Line (303) 691-7700
Located in Glendale, Colorado

Laboratory Services Division
8100 Lowry Blvd.
Denver, Colorado 80230-6928
(303) 692-3090

http://www.cdphe.state.co.us

Colorado Department
of Public Health
and Environment

December 14, 2006

Joel Meggers
Greatrock North Water and Sanitation District
141 Union Blvd. #150
Lakewood, CO 80228-1898

Subject: Plans Review and Approval for the Greatrock North WSD Alluvial Well (ALV-1); PWSID # CO0101063; Adams County

Dear Mr. Meggers:

The Water Quality Control Division (the Division) has received and reviewed the plans and specifications for the Greatrock North Water and Sanitation District Box Alluvial Well (ALV-1), prepared by JR Engineering, LLC, March 2006. This review was done in accordance with Article 1.11.2(b) of the Colorado Primary Drinking Water Regulations (CPDWR). The design meets or exceeds the requirements of the State of Colorado Design Criteria for Potable Water Systems and is hereby approved subject to the following performance conditions:

- The design engineer has stated that the ALV-1 well should be considered Ground Water Under the Direct Influence of Surface Water (GWUDI). After considering the well location, depth, and possible influences the Division agrees that the water from the ALV-1 well is GWUDI. The original well, LFH-1 was considered ground water and the Reverse Osmosis (RO) treatment system was specified to treat for total dissolved solids. The reverse osmosis unit should also be effective at treating the ALV-1 well for surface water contamination.

- Due to the fact that the source of the water has changed from groundwater to GWUDI the Greatrock North WSD is going to have to increase its monitoring efforts. The Greatrock North WSD is now subject to the requirements outlined in Article 7.3 Enhanced Surface Water Treatment- Systems Serving Fewer Than 10,000 of the Colorado Primary Drinking Water Regulations (CPDWR).

- Online turbidity meters must be installed at the exit of each individual RO units' effluent stream to evaluate filter performance.

- Integrity testing must be performed on the RO treatment unit(s). The RO system is currently running 5 hours a day and there is a conductivity measuring device on the system continuously measuring conductivity. High Conductivity readings will notify the operator through an automatic radio system to take corrective action. As being currently practiced, the operator will continue to monitor the RO effluent conductivity with a hand held device once a week for the purpose of quality control. The operator is to continue RO Clean-in-Place procedures as necessary.

- An Emergency Standard Operating Procedure (SOP) must be developed addressing plant operation during RO failure and or RO shutdown. The SOP must state that if the RO system is not performing properly in any way the source water from the ALV-1 well will be not be used. The plant will then switch water

source from ALV-1 to the Laramie Fox Hills backup supply.

- Nitrate was detected in the ALV-1 well at a level of 6.6 mg/L. The Water facility will be treating this water with Reverse Osmosis (RO) and the filtrate will be blended with water from Upper Arapahoe Well. Given the reverse osmosis treatment and subsequent blending with the Upper Arapahoe Well, the level of nitrate in the finished water should not approach the Maximum Contaminant Level of 10 mg/L, however, the ALV-1 well should be monitored over time to monitor trends in nitrate level.

- Chloromethane (0.56 μg/L) was detected in the ALV-1 organics analysis. Chloromethane is an unregulated volatile organic contaminant, which is not regulated under the CPDWR.

This approval addresses the following items:

- Construction of Well ALV-1.
- Reclassification of the source water from Ground Water to GWUDI.
- Reclassification of the water system as a Surface Water Treatment System
- RO integrity testing
- Emergency Protocol

All change orders or addenda that address treatment or piping must be submitted to this office in duplicate for review and approval by the Division.

Upon completion of construction, a written certification from the Greatrock North Water and Sanitation District stating that the well was constructed as approved and performance conditions addressed must be submitted to the Division. This certification should include the date that the new well commences with routine operations.

In accordance with the current Colorado Operators Certification Board regulations, the Greatrock North Water and Sanitation District water system is required to be under the responsible control of a Class "C" water treatment plant operator and a Class "1" distribution system operator. According to our records, the plant is under the responsible charge of Ms. Katie Creighton. Our records state that Ms. Creighton currently holds a Class "C" water treatment plant certification and a Class "1" distribution system certification. Therefore, the operator requirement will be met.

Approval of this project is based only upon engineering design to provide safe potable water, as required by the Colorado Primary Drinking Water Regulations and shall in no way influence local building department or local health department decisions on this project.

If construction of the treatment facility is not begun within 365 days of this letter, the Division's approval will expire. All information will be required to be updated and resubmitted for review and approval by the Division.

Please direct any further correspondence regarding this approval to:

Jorge Delgado, E.I.T.
Colorado Department of Public Health and Environment
Water Quality Control Division B2
4300 Cherry Creek Drive South
Denver, CO 80246-1530

Attached to this letter you will find a Customer Satisfaction Survey. We would greatly appreciate it if you would take a few moments to complete this survey and return it to us. Simply fill out the form, fold it according to the directions and drop it in the mail. The postage is already paid! Thank you for your time.
If you have any questions or comments, please call me at 303.692.3511 or Glenn Bodnar at 303.692.3548

Sincerely,

Jorge A. Delgado, E.I.T.
Engineering Section
Water Quality Control Division

Glenn A. Bodnar, P.E.
Engineering Section
Water Quality Control Division

Enclosure: Customer Satisfaction Survey

cc:

Giles Free III, P.E., JR Engineering, LLC. w/ Survey
12195 Mariposa St, Ste 100
Westminster, CO 80234

Tri County Health Department

Ms. Erica Kannely, Compliance Assurance and Data Management Unit, WQCD / DW File

Ms. Lauren Worley, Drinking Water Rule Mgr, WQCD

ec.

Ms. Betsy Beaver, Facility Operators Program, WQCD

Tom Armitage, District Engineer, WQCD

June 18, 2008

Colorado Department of Public Health and Environment
WQCD-PE-B2
4300 Cherry Creek Dr S
Denver, CO 80246-1530

RE: Greatrock North Water and Sanitation District
2007 CIP – Construction Approval Application
JR Job Number: 1000-4258.02

Enclosed is the construction approval application and associated attachments for the District 2007 CIP project. The package includes copies of the current and pending water decrees that supply alluvial water for this project.

We will be submitting an application to CDPHE for alluvial well number 2 later this year that will be a backup well for well number 1 when the well is drilled and pump tested and water quality analysis is performed.

If you have any questions or need additional information please call.

Sincerely,

JR Engineering, LLC

Giles N. Free, III, P.E.
Lead Project Engineer

Enclosures

September 8, 2008

Mr. Kelsey Baertschi
Colorado Department of Public Health and Environment
WQCD-PE-B2
4300 Cherry Creek Dr S
Denver, CO 80246-1530

RE: Greatrock North Water and Sanitation District
2007 CIP – Construction Approval Application
JR Job Number: 1000-4258.02

Dear Kelsey:

Enclosed is a signed and stamped copy of the construction plans for this project as requested. We have made some revisions to the plans. The Greatrock North Pump Station Generator was relocated from inside the well building to the outside with its own enclosure. We also added the electrical plans for all of the pump stations and the Alluvial Well No.2 site.

If you have any questions or need additional information please call.

Sincerely,

JR Engineering, LLC

Giles N. Free, III, P.E.
Lead Project Engineer

February 26, 2009

J·R ENGINEERING
A Westrian Company

Mr. Kelsey Baertschi
Colorado Department of Public Health and Environment
WQCD-PE-B2
4300 Cherry Creek Dr S
Denver, CO 80246-1530

RE: Greatrock North Water and Sanitation District
2007 CIP – Construction Approval Application Change Order No. 1
Alluvial Well No. 2
JR Job Number: 1000-4258.02

Dear Kelsey:

We are submitting the following as a change order to our original submittal. This change order adds Alluvial Well No. 2 (ALV-2). The following information is attached as part of this change order:

1. ALV-2 Well Cross Section of Well Construction Details
2. Water Quality Tests Results for ALV-2
3. CDPHE Inventory form with updates for ALV-2 well and contact information

ALV-2 is a backup well for ALV-1 but both wells will be used to feed the RO plant. ALV-2 has the same flow rate as ALV-1 of 135 gpm. The original plans detail the pipeline and meter vault that connects ALV-2 to the ALV-1 pipeline. The wells will be alternated in operation, as water is needed from the RO plant to fill the Box Elder Storage Tank.

If you have any questions or need additional information please call.

Sincerely,

JR Engineering, LLC

Giles N. Free, III, P.E.
Lead Project Engineer

12195 Mariposa Street, Suite 100, Westminster, CO 80234
720-872-9850 • Fax: 720-872-9853 • www.jrengineering.com

ENGINEERING REPORT
FOR
GREATROCK NORTH WATER
AND SANITATION DISTRICT
2007 CAPITAL IMPROVEMENT PROJECT

April 2008

Prepared For:

GREATROCK NORTH WATER AND SANITATION DISTRICT
141 Union Blvd., Ste. 150
Lakewood, CO 80228
(303) 987-0835

Prepared By:

JR ENGINEERING
6020 Greenwood Plaza Blvd.
Greenwood Village, CO 80111
(303) 740-9393

Job No. 14258.02

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1 INTRODUCTION

1.1 PURPOSE

This Engineering Report for the Greatrock North Water and Sanitation District, hereafter referred to as "the District," is intended to provide a description of proposed capital improvements to the District's system. The content of this report includes information on the project location, the existing system, and the proposed system improvements. Engineering design calculations and a system process and instrumentation diagram (PID) are included in the appendix.

2 PROJECT BACKGROUND

2.1 LOCATION

The District provides service within Sections 1-3, Township 1 South, Range 65 West of the 6th Principal Meridian in Adams County, Colorado. The District currently includes residential single-family homes in the following five subdivisions: Box Elder Creek Ranch Filings I-IV, Rocking Horse Farms, Homestead Heights II, Hayesmount Estates, and Greatrock North.

2.2 SERVICE AREA

The District provides potable water service to approximately 1400 year-round residents through 405 service taps. While the Greatrock North and Rocking Horse Farms subdivisions are at build-out, planned development at Box Elder Creek Ranch, Homestead Heights II, and Hayesmount Estates will significantly increase this service population.

2.3 EXISTING SYSTEM

The District's existing infrastructure includes three separate potable water distribution systems that use water from the Upper Arapahoe and Laramie-Fox Hills aquifers. Box Elder Creek Ranch utilizes treated alluvial well water for primary potable water supply. Water cannot be transferred between subdivisions because the delivery systems are confined for use within each subdivision. The developer also operates and supplies irrigation water from a separate alluvial well.

Greatrock North residents are served via a distribution line from a buried 250,000-gallon concrete storage tank with a pump station. Two groundwater wells provide Greatrock North's raw water supply from the Upper Arapahoe aquifer (UKA-1 well) and the Laramie-Fox Hills aquifer (LFH-1 well).

An additional distribution network including a 300,000-gallon concrete storage tank and a pump station serves residents at Rocking Horse Farms. This raw water supply is pumped and blended from two groundwater wells near the tank, one drawing from the Upper Arapahoe aquifer (UKA-2 well) and the other from the Laramie-Fox Hills aquifer (LFH-2 well).

The water system at Box Elder Creek Ranch consists of three wells, a reverse osmosis treatment facility, a 500,000-gallon concrete water storage tank, and a pump station. An alluvial well drawing from the Box Elder Creek Alluvium (ALV-1) is the primary raw water source for this location. Alluvial water is blended with groundwater from an Upper Arapahoe well (UKA-3) and filtered using the reverse osmosis treatment process. A corrosion inhibitor is added before storage of the treated water because it is very close to pure water. Laramie-Fox Hills groundwater from the third well (LFH-3) is pumped and discharged to Box Elder Creek under a water decree.

3 PROJECT SCOPE

3.1 PROPOSED SYSTEM

The District desires integration of the three independent water systems. The proposed water system will combine these systems, resulting in shared use of the Denver Basin wells and the alluvial well, treated water distribution to the entire District, and a more efficient overall system. New alluvial wells are proposed for a dependable, more economic addition to the Denver Basin wells. Augmentation for these proposed wells would be provided from Denver Basin return flows; via lawn, irrigation, and septic returns; and by direct discharge of Denver Basin water to the alluvium of Box Elder Creek.

A proposed triple 6" pipeline will connect the treated distribution water, the Upper Arapahoe wells, and the Laramie-Fox Hills wells across the three subdivisions. Upper Arapahoe water will be treated at the Box Elder Creek pump station and be used to supplement the potable water supply. Laramie-Fox Hills water will be used for augmentation discharge to Box Elder Creek

Effluent from the reverse osmosis treatment process will be discharged to the lined North Detention Pond, where treatment of nitrates will be achieved through detention time. Detained water above the pond elevation of 5069 will pass through the lined South Detention Pond and be pumped at a maximum flow rate of 35 gallons per minute from the southwest corner of the pond. The discharge will be piped to a point above the 100-year flood plain at a nearby drainage channel that flows east to Box Elder Creek.

An additional alluvial well site is planned to be in the center of the north side of the North Detention Pond. This alluvial well and future alluvial wells will be connected to the existing raw water line entering the Box Elder Creek treatment facility.

Electrical and control systems will be upgraded to communicate through a unified SCADA network. These upgrades will result in more efficient use and monitoring of the District's water network.

No changes are proposed for the reverse osmosis treatment process or for chemicals added to the potable water supply.

3.2 CONSTRUCTION PLAN AND SCHEDULE

The planned construction includes the proposed triple 6" pipeline and associated pump station yard piping, demolition and upgrades to the internal pump station piping and electrical components, a new alluvial well, and new discharge piping from the existing evaporation ponds. Construction is estimated to take place between August 11, 2008, and November 21, 2008. Bid opening is scheduled for June 16th, with notice of award on July 24th. SCADA instrumentation and startup is planned to be complete by December 19, 2008, after which full operation will begin.

3.3 CONTAMINATION SOURCES

Known contamination sources include septic system leech fields from residential dwellings and upstream agricultural sources, as well as agricultural sources within the Box Elder Creek subdivision.

3.4 CHEMICAL ANALYSES

A full drinking water analysis was performed for water from the alluvial and Upper Arapahoe wells. The only major issue based on the results is a high nitrate concentration seen in the alluvial water. For further details, refer to the Chemical Analyses section of the appendix.

4 SUMMARY

Construction of this District Capital Improvement Project will improve water quality at the Greatrock North and Rocking Horse Farms developments. The proposed water system and controls will also provide more flexibility for the District in water treatment, storage, distribution, and augmentation discharge. The District will continue management and certified operation of the system to provide safe drinking water for its residents.

PREPARED BY:

JR Engineering

Giles N. Free, III, PE
Lead Project Engineer

5 REFERENCES

1. Design Criteria for Potable Water Systems prepared by Colorado Department of Public Health and Environment Water Quality Control Division and revised March 31, 1997 (http://www.cdphe.state.co.us/wq/engineering/DesigncriteriaPotablewatersystem.pdf).

2. New Water System Capacity Planning Manual prepared by Colorado Department of Public Health and Environment Water Quality Control Division (http://www.cdphe.state.co.us/wq/drinkingwater/pdf/CapacityDevelopment/newsystmanual.pdf).

3. Colorado Primary Drinking Water Regulations, 5CCR 1003-1 prepared by Colorado Department of Public Health and Environment Water Quality Control Commission, amended August 13, 2007, effective date September 30, 2007 (http://www.cdphe.state.co.us/regulations/wqccregs/100301primarydrinkingwater.pdf).

4. Industrial Wastewater (Process Water) Discharge prepared by Colorado Department of Public Health and Environment Water Quality Control Commission, amended August 13, 2007, effective date September 30, 2007 (http://www.cdphe.state.co.us/wq/PermitsUnit/Industrial/IndustrialIndividualPermitApplication.pdf)

STATE OF COLORADO

Bill Ritter, Jr., Governor
James B. Martin, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
Phone (303) 692-2000
TDD Line (303) 691-7700
Located in Glendale, Colorado

http://www.cdphe.state.co.us

Laboratory Services Division
8100 Lowry Blvd.
Denver, Colorado 80230-6928
(303) 692-3090

Colorado Department
of Public Health
and Environment

February 4, 2010

Ms. Lisa Johnson
CSI Manager
141 Union Boulevard, Suite 150
Lakewood, Colorado 80228

Subject: Plans Review Approval for the Greatrock North Water and Sanitation District Water System Improvements; Community Water System PWSID No. CO0101063; Adams County

Dear Ms. Johnson:

The Water Quality Control Division (the Division) has received and reviewed the plans and specifications for the water system improvements. This review was done in accordance with Article 1.11.2(b) of the Colorado Primary Drinking Water Regulations. The design meets or exceeds the requirements of the State of Colorado Design Criteria for Potable Water Systems and is hereby approved.

This approval addresses the following items:

- Alluvial Well No. 2 (ALV-2)
  - Well permit no. 67146-F
  - Total depth of 47 feet
  - Associated well appurtenances

Approval of this project is based only upon engineering design to provide safe potable water, as required by the Colorado Primary Drinking Water Regulations and shall in no way influence local building department or local health department decisions on this project.

Any additional treatment or piping changes must be submitted to this office for review and approval prior to installation or modification.

In accordance with the current Operators Certification Board Regulations, the Greatrock North Water and Sanitation District's treatment facilities are required to be under the responsible control of a Class "C" Operator and a Class "1" Distribution System Operator. According to our records, the system is under the responsible charge of Ms. Katie Creighton, who is a Class "C" Operator and Class "1" Distribution System Operator. Therefore, operator certification requirements are being met. Please contact Betsy Beaver at (303) 692-3503 if there are any questions regarding operator certification.

Any point source discharges of water from the facility are potentially subject to a discharge permit under the State Discharge Permit System. Any point source discharges to state waters without a permit are subject to civil or criminal enforcement action. If you have any questions regarding permit requirements contact the Permits Unit at (303) 692-3500.

Attached to this letter you will find a Customer Satisfaction Survey. We would greatly appreciate it if you would take a few moments to complete this survey and return it to us. Simply fill out the form, fold it according to the directions and drop it in the mail. The postage is already paid. Thank you for your time.

If you have any questions or comments, please call me at 303-692-3567.

Sincerely,

Kelsey E. Baertschi, P.E.
Engineering Section
Water Quality Control Division
Colorado Department of Public Health and Environment

Enclosure: Customer Satisfaction Survey

cc: Tri-County Health Department
Brad Simons, P.E., Olsson Associates
DW File

cc. Heather Drissel, Denver Field Unit Manager, WQCD
Bret Icenogle, Denver Field Unit Manager, WQCD
Tyson Ingels, Lead Drinking Water Engineer, WQCD
Ms. Erica Kannely, Compliance Assurance and Data Management Unit, WQCD

May 22, 2008

Colorado Department of Public Health and Environment
WQCD-PE-B2
4300 Cherry Creek Dr S
Denver, CO 80246-1530

RE: Greatrock North Water and Sanitation District
2007 CIP – Discharge Permit Application for RO Process Water Discharge
JR Job Number: 1000-4258.02

Attached are 2 copies of a discharge application to discharge process water from an existing reverse osmosis treatment process for potable water. The existing process water is sent to evaporation ponds. The process water discharge volume is to be increased and the ponds converted to detention ponds for nitrate reduction/removal and discharge of the water to Box Elder Creek. The RO plant processes water from the Box Elder Creek Alluvium.

If you have any questions or need additional information please call.

Sincerely,

JR Engineering, LLC

Giles N. Free, III, P.E.
Lead Project Engineer

Attachments

Account No. 12341500 - Alluvial Wells

Billing Period	Energy (KWH) 2012	Energy (KWH) 2013	% of 2012	Charge 2012	Charge 2013	% of 2012	Comments
January	2970	2136	72	$ 547.88	$ 358.98	66	
February	2177	1832	84	$ 532.28	$ 341.31	64	
March	2724	1854	68	$ 553.69	$ 223.28	40	
April	3663	2117	58	$ 584.97	$ 252.68	43	
May	5092	3517	69	$ 659.96	$ 409.20	62	
June	7109	8676	122	$ 757.99	$ 985.98	130	
July	8596	8268	96	$ 905.34	$ 940.36	104	July 10 reduced RO run time to 30 minutes per day
August	8423	4140	49	$ 899.14	$ 478.85	53	
September	8656	3864	45	$ 911.54	$ 448.00	49	
October	4295	2102	49	$ 718.65	$ 251.00	35	
November	3156	1611	51	$ 653.04	$ 196.11	30	November 11 increased RO run time to 240 minutes per day
December	2282	2349	103	$ 373.55	$ 278.62	75	
Totals	59143	42466	72	$ 8,098.03	$ 5,164.37	64	

Account No. 7891601 - BECR Pump House and RO

Billing Period	Energy (KWH) 2012	Energy (KWH) 2013	% of 2012	Charge 2012	Charge 2013	% of 2012	Comments
January	13520	13680	101	$ 1,651.60	$ 1,725.12	104	
February	12520	12240	98	$ 1,621.27	$ 792.21	49	
March	11960	11440	96	$ 1,645.34	$ 823.97	50	
April	15080	12960	86	$ 2,396.93	$ 907.26	38	
May	26800	18960	71	$ 2,789.79	$ 1,351.00	48	
June	52040	52320	101	$ 4,416.78	$ 3,923.69	89	
July	57120	47560	83	$ 4,655.89	$ 3,611.18	78	July 10 reduced RO run time to 30 minutes per day
August	52960	34280	65	$ 4,461.41	$ 2,687.41	60	
September	46880	22120	47	$ 3,939.55	$ 1,721.63	44	
October	12880	12760	99	$ 1,633.60	$ 998.75	61	
November	36680	7640	21	$ 3,632.14	$ 571.71	16	November 11 increased RO run time to 240 minutes per day
December	12120	19920	164	$ 1,600.40	$ 1,653.47	103	
Totals	350560	265880	76	$ 34,444.70	$ 20,767.40	60	

Account No. 2893502 - GN Pump House

Billing Period	Energy (KWH) 2012	Energy (KWH) 2013	% of 2012	Charge 2012	Charge 2013	% of 2012	Comments
January	4200	5400	129	$ 467.45	$ 670.70	143	
February	5040	4840	96	$ 705.94	$ 364.20	52	
March	4200	5080	121	$ 643.23	$ 422.21	66	
April	11360	5600	49	$ 1,415.12	$ 447.69	32	
May	11880	6400	54	$ 1,484.27	$ 508.91	34	
June	15840	16360	103	$ 1,698.33	$ 1,243.57	73	
July	13720	15040	110	$ 1,375.89	$ 1,130.45	82	
August	12920	11200	87	$ 1,534.72	$ 867.42	57	
September	14880	10480	70	$ 1,417.52	$ 823.33	58	
October	14960	6320	42	$ 1,627.09	$ 531.41	33	
November	7480	5200	70	$ 1,001.45	$ 432.49	43	October 22 VFD No. 2 installed
December	4520	5040	112	$ 663.15	$ 429.06	65	
Totals	121000	96960	80	$ 14,034.16	$ 7,871.44	56	

Account No. 6666302 - RHF Pump House

Billing Period	Energy (KWH) 2012	Energy (KWH) 2013	% of 2012	Charge 2012	Charge 2013	% of 2012	Comments
January	3960	17520	442	$ 372.28	$ 1,596.64	429	
February	3840	11520	300	$ 512.12	$ 899.31	176	
March	3400	10720	315	$ 520.05	$ 894.39	172	
April	16280	9840	60	$ 1,664.58	$ 829.25	50	
May	11680	4920	42	$ 1,390.20	$ 425.22	31	
June	11000	8120	74	$ 1,620.73	$ 617.25	38	
July	8240	16440	200	$ 1,098.88	$ 1,280.36	117	
August	28160	21200	75	$ 2,541.00	$ 1,694.17	67	August 13 Pumps No. 1 and 2 changed out
September	29720	4200	14	$ 2,499.56	$ 359.11	14	
October	17280	2280	13	$ 2,027.85	$ 212.18	10	
November	15040	5720	38	$ 1,436.80	$ 490.84	34	
December	14280	2240	16	$ 1,779.11	$ 214.63	12	
Totals	162880	114720	70	$ 17,463.16	$ 9,513.35	54	

2012 to 2013 Comparison Summary

	Energy (KWH)			Charge		
Account	2012	2013	% of 2012	2012	2013	% of 2012
12341500	59143	42466	72	$ 8,098.03	$ 5,164.37	64
7891601	350560	265880	76	$ 34,444.70	$ 20,767.40	60
2893502	121000	96960	80	$ 14,034.16	$ 7,871.44	56
6666302	162880	114720	70	$ 17,463.16	$ 9,513.35	54
Totals	**693583**	**520026**	**75**	**$ 74,040.05**	**$ 43,316.56**	**59**

Colorado Analytical

Analytical Results

TASK NO: 140109031

Report To: Wayne Ramey
Company: Ramey Environmental Compliance, Inc.
P.O. Box 99
Firestone CO 80520

Bill To: Wayne Ramey
Company: Ramey Environmental Compliance, In
P.O. Box 99
Firestone CO 80520

Task No.: 140109031
Client PO:
Client Project: Greatrock North W&S District CO 0101063

Date Received: 1/9/14
Date Reported: 1/15/14
Matrix: Water - Drinking

Customer Sample ID Box Elder
Sample Date/Time: 1/8/14 12:00 PM
Lab Number: 140109031-01

Test	Result	Method	LQL	Date Analyzed	Analyzed By
Bicarbonate	**183.2 mg/L**	SM 2320-B	0.1	1/13/14	ICP
Carbonate	**< 0.1 mg/L**	SM 2320-B	0.1	1/13/14	ICP
Total Alkalinity	**150.2 mg/L as CaCO3**	SM 2320-B	0.1	1/13/14	ICP
Total Dissolved Solids	**553 mg/L**	SM 2540-C	5	1/14/14	ISG

Abbreviations/ References:

LQL = Lower Quantification Limit
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed
SM = "Standard Methods for the Examination of Water and Wastewater"; APHA; 19th Edition; 1995
EPA = "Methods of Chemical Analysis of Water and Wastes"; USEPA; EPA-600/4-79-020 Rev 3/83

DATA APPROVED FOR RELEASE BY

240 South Main Street / Brighton, CO 80601-0507 / 303-659-2313
Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507 / Fax: 303-659-2315

140109031

Colorado Analytical
LABORATORIES, INC

Analytical Results

TASK NO: 140109031

Report To: Wayne Ramey
Company: Ramey Environmental Compliance, Inc.
P.O. Box 99
Firestone CO 80520

Bill To: Wayne Ramey
Company: Ramey Environmental Compliance, In
P.O. Box 99
Firestone CO 80520

Task No.: 140109031
Client PO:
Client Project: Greatrock North W&S District CO 0101063

Date Received: 1/9/14
Date Reported: 1/15/14
Matrix: Water - Drinking

Customer Sample ID Rocking Horse
Sample Date/Time: 1/8/14 12:10 PM
Lab Number: 140109031-02

Test	Result	Method	LQL	Date Analyzed	Analyzed By
Bicarbonate	**186.8 mg/L**	SM 2320-B	0.1	1/13/14	ICP
Carbonate	**< 0.1 mg/L**	SM 2320-B	0.1	1/13/14	ICP
Total Alkalinity	**153.1 mg/L as CaCO3**	SM 2320-B	0.1	1/13/14	ICP
Total Dissolved Solids	**559 mg/L**	SM 2540-C	5	1/14/14	ISG

Abbreviations/ References:

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mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed
SM = "Standard Methods for the Examination of Water and Wastewater"; APHA; 19th Edition; 1995
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Colorado Analytical

Analytical Results

TASK NO: 140109031

Report To: Wayne Ramey
Company: Ramey Environmental Compliance, Inc.
P.O. Box 99
Firestone CO 80520

Bill To: Wayne Ramey
Company: Ramey Environmental Compliance, In
P.O. Box 99
Firestone CO 80520

Task No.: 140109031
Client PO:
Client Project: Greatrock North W&S District CO 0101063

Date Received: 1/9/14
Date Reported: 1/15/14
Matrix: Water - Drinking

Customer Sample ID Greatrock N
Sample Date/Time: 1/8/14 12:30 PM
Lab Number: 140109031-03

Test	Result	Method	LQL	Date Analyzed	Analyzed By
Bicarbonate	**189.1 mg/L**	SM 2320-B	0.1	1/13/14	ICP
Carbonate	**< 0.1 mg/L**	SM 2320-B	0.1	1/13/14	ICP
Total Alkalinity	**155.0 mg/L as CaCO3**	SM 2320-B	0.1	1/13/14	ICP
Total Dissolved Solids	**575 mg/L**	SM 2540-C	5	1/14/14	ISG

Abbreviations/ References:

LQL = Lower Quantification Limit
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
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Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507 / Fax: 303-659-2315

140109031

Colorado Analytical
LABORATORIES, INC.

Analytical Results

TASK NO: 131029011

Report To: Wayne Ramey
Company: Ramey Environmental Compliance, Inc.
P.O. Box 99
Firestone CO 80520

Bill To: Wayne Ramey
Company: Ramey Environmental Compliance, In
P.O. Box 99
Firestone CO 80520

Task No.: 131029011
Client PO:
Client Project: Greatrock North W&S District CO
0101063

Date Received: 10/29/13
Date Reported: 11/1/13
Matrix: Water - Drinking

Customer Sample ID B E.
Sample Date/Time: 10/28/13 12:15 PM
Lab Number: 131029011-03

Test		Result	Method	LQL	Date Analyzed	Analyzed By
T	Dissolved Solids	**677 mg/L**	SM 2540-C	5	10/31/13	ISG

Abbreviations/ References:

LQL = Lower Quantification Limit
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
n/100 mls = Most Probable Number Index/ 100 mls
e Analyzed = Date Test Completed
SM = "Standard Methods for the Examination of Water and Wastewater"; APHA; 19th Edition; 1995
EPA = "Methods of Chemical Analysis of Water and Wastes"; USEPA; EPA-600/4-79-020 Rev 3/83

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240 South Main Street / Brighton, CO 80601-0507 / 303-659-2313
Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507 / Fax: 303-659-2315

131029011

Colorado Analytical
LABORATORIES INC.

Analytical Results

TASK NO: 131029011

Report To: Wayne Ramey
Company: Ramey Environmental Compliance, Inc.
P.O. Box 99
Firestone CO 80520

Bill To: Wayne Ramey
Company: Ramey Environmental Compliance, In
P.O. Box 99
Firestone CO 80520

Task No.: 131029011
Client PO:
Client Project: Greatrock North W&S District CO
0101063

Date Received: 10/29/13
Date Reported: 11/1/13
Matrix: Water - Drinking

Customer Sample ID R.H.F.
Sample Date/Time: 10/28/13 12:00 PM
Lab Number: 131029011-02

Test	Result	Method	LQL	Date Analyzed	Analyzed By
T[illegible] Dissolved Solids	643 mg/L	SM 2540-C	5	10/31/13	ISG

Abbreviations/ References:

LQL = Lower Quantification Limit
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
[illegible]n/100 mls = Most Probable Number Index/ 100 mls
[illegible] Analyzed = Date Test Completed
[illegible] = "Standard Methods for the Examination of Water and Wastewater": APHA; 19th Edition; 1995
EPA = "Methods of Chemical Analysis of Water and Wastes": USEPA; EPA-600/4-79-020 Rev 3/83

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240 South Main Street / Brighton, CO 80601-0507 / 303-659-2313
Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507 / Fax: 303-659-2315

Colorado Analytical
LABORATORIES, INC.

Analytical Results

TASK NO: 131029011

Report To: Wayne Ramey
Company: Ramey Environmental Compliance, Inc.
P.O. Box 99
Firestone CO 80520

Bill To: Wayne Ramey
Company: Ramey Environmental Compliance, In
P.O. Box 99
Firestone CO 80520

Task No.: 131029011
Client PO:
Client Project: Greatrock North W&S District CO
0101063

Date Received: 10/29/13
Date Reported: 11/1/13
Matrix: Water - Drinking

Customer Sample ID G.R.N.
Sample Date/Time: 10/28/13 11:45 AM
Lab Number: 131029011-01

Test		Result	Method	LQL	Date Analyzed	Analyzed By
T	Dissolved Solids	594 mg/L	SM 2540-C	5	10/31/13	ISG

Abbreviations/ References:

LQL = Lower Quantification Limit
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
n/100 mls = Most Probable Number Index/ 100 mls
e Analyzed = Date Test Completed
M = "Standard Methods for the Examination of Water and Wastewater": APHA; 19th Edition, 1995
EPA = "Methods of Chemical Analysis of Water and Wastes"; USEPA; EPA-600/4-79-020 Rev 3/83

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240 South Main Street / Brighton, CO 80601-0507 / 303-659-2313
Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507 / Fax: 303-659-2315

131029011

Ramey Environmental Compliance, Inc.
Management and Operation Solutions for
Water and Wastewater Treatment
303-833-5505

PO Box 99, Firestone, Colorado 80520
email: contact.us@RECinc.net
www.RECinc.net

Greatrock North W & S District
Monthly Activities
December 20th – January 27th

12/20/13: Regular checks and readings. Water leak at 16520 Tree Haven St. located and shut off curb stop and isolated a section of main line since leak was on both sides of curb stop. Assisted Dan LaCoe's staff in repairing leak. Once leak was repaired opened valves back up and flushed water from fire hydrant to remove any air.

12/23/13: Regular checks and readings. Replaced pre-filters on RO unit and mixed antiscliant.

12/24/13: Regular checks and readings.

12/27/13: Regular checks and readings.

12/30/13: Regular checks and readings. Found leak on pressure tank at Greatrock North pump station. Isolated tank and spoke to Water Technology who stated we would not have to replace since both booster pumps are now running off VFD's.

1/1/14: Regular checks and readings.

1/3/14: Regular checks and readings.

1/6/14: Regular checks and readings.

1/8/14: Regular checks and readings.

1/10/14: Regular checks and readings.

1/13/14: Regular checks and readings. Collected and delivered monthly samples along with annual Nitrate, and VOC samples.

1/15/14: Regular checks and readings.

1/17/14: Regular checks and readings.

1/20/14: Regular checks and readings.

1/22/14: Regular checks and readings. Cleaned all sites, repaired fence at RHF and mixed antiscliant.

1/24/14: Regular checks and readings.

1/20/14: Regular checks and readings.

Pond levels are below depth markers.

December 20th - January 27th

RO Run Time Hrs	139.9 hrs.
RO Concentrate Flow – 2 ponds	277,002 gallons

Completed Work Order List Report

Completed	Equipment Number	Task	Priority	WO#	Type
1/6/2014	BOX RO system	CIP Clean in place	1	235.01	Scheduled
1/6/2014	GN Generator	Ck Oil Check Oil Level(069)	5	225.01	Scheduled
12/16/2013	Water Sampling	Bacti Bacti Sampling(069)	1	258.01	Scheduled