

April 28, 2009

Debbie Benton
20718 WCR 20
Hudson, Colorado 80642

RE: Water Quality Analytical Results for Your Water Well (Permit # 151182)
Section 21 – Township 2 North – Range 65 West
Weld County, Colorado; Complaint No. 200209080

Dear Ms. Benton:

On March 24, 2009 LT Environmental, Inc. (LTE), under direction of Noble Energy, sampled your water well and submitted these samples for laboratory analysis. The purpose of this water sampling was to determine if natural gas drilling and production activities in your area might have impacted your well water. The Colorado Oil & gas Conservation Commission (COGCC) has received the final set of water quality sample results for your water well. These samples were submitted to Evergreen Analytical Laboratory (Evergreen), in Wheat Ridge, Colorado for analysis of inorganic chemical constituents, organic compounds associated with petroleum hydrocarbons, methane gas, and pH. A copy of the Evergreen laboratory analytical report is enclosed.

The Water Quality Control Commission (WQCC) of the Colorado Department of Public Health and Environment (CDPHE) has established drinking water standards for the protection of human health. The analytical results from the water samples from your well have been compared to applicable ground water and/or drinking water standards and are summarized below. Please keep in mind that these water standards were established for public drinking water supplies. Often people use and consume ground water from private wells that can exceed these standards.

COMPARISON OF INORGANIC ANALYTICAL RESULTS TO STANDARDS

- **Total Dissolved Solids (TDS):** CDPHE has established a TDS standard for human drinking water of 500 milligrams per liter (mg/l). The standard is called the secondary maximum contaminant level (SMCL) and is based on the aesthetic quality of the water (such as taste and odor) and is intended as a guideline for public water supply systems and is not an enforceable standard. Although CDPHE does not have an agricultural standard for TDS, other agencies recommend concentrations below 2,000 mg/l for irrigation, and below 5,000 mg/l for most livestock watering. TDS concentrations are related to the presence of naturally occurring elements and chemical compounds such as chloride, sodium, potassium, calcium, magnesium, and sulfate.

TDS was detected in the water sample from your well at concentration of 652 mg/l, which is above the CDPHE SMCL, less than the recommended maximum concentration for irrigation, and less than the recommended maximum concentration for most livestock watering.

- Sodium (Na): Although CDPHE does not have a standard for sodium, people on salt restricted diets should be aware of the Na concentration in the water they drink. A concentration of drinking water with a concentration of sodium less than 20 mg/l is recommended by some for people on salt restricted diets or for people suffering from hypertension or heart disease. Sodium occurs naturally in the ground water in many areas at concentrations that exceed the recommended level.

Sodium was detected in the water sample from your well at a concentration of 290 mg/l, which is greater than the recommended level for people of salt restricted diets.

- Fluoride (F): CDPHE has established a fluoride (F) standard for human drinking water is 4.0 mg/l. Where fluoride concentrations are in the range of 0.7 mg/l to 1.2 mg/l, health benefits such as reduced dental decay have been observed. Consumption of fluoride at concentrations of greater than 2.0 mg/l can result in mottling of teeth. Consumption of fluoride at concentrations greater than 4.0 mg/l can increase the risk of skeletal fluorosis or other adverse health effects.

Fluoride was detected in the water sample from your water well at a concentration of 3.0 mg/l, which is less than the maximum human health drinking water standard.

Chloride (Cl): The CDPHE chloride standard (SMCL) for drinking water is 250 mg/l. Chloride concentrations in excess of 250 mg/l usually produce a noticeable taste in drinking water.

Chloride was detected in the water sample from your well at a concentration of 53.3 mg/l, which is less than the CDPHE SMCL.

- Sulfate (SO₄): The CDPHE sulfate standard for drinking water is 250 mg/l (SMCL). Although CDPHE does not have an agricultural standard for sulfate, other agencies recommend a concentration below 1,500 mg/l for livestock watering. Waters containing high concentrations of sulfate, typically caused by the leaching of natural deposits of magnesium sulfate (Epsom salts) or sodium sulfate (Glauber's salt), may be undesirable because of their laxative effects. Sulfate occurs naturally in the ground water in many areas in Colorado at concentrations that exceed the drinking water standard.

Sulfate was not detected in the water sample from your well.

- Total Nitrate (NO₃) + Nitrite (NO₂) as Nitrogen (N): The CDPHE total nitrate (NO₃) + nitrite (NO₂) as nitrogen (N) for standard for human drinking water is 10 mg/l. Nitrate and nitrite are common contaminants in ground water from agricultural sources, such as fertilizer

and animal, including human, wastes. They are known to cause infant cyanosis or “blue baby disease” in humans and, at concentrations greater than 100 mg/l as nitrogen (N), may be dangerous to livestock. High concentrations of nitrate and nitrite in ground water are known to occur in agricultural areas in Colorado.

Total nitrate/nitrite, as N was not detected in the water sample from your well.

- **Iron (Fe):** The CDPHE standard for human drinking water for iron is 0.3 mg/l (SMCL). Small amounts of iron are common in ground water. Iron may produce a brownish-red color in laundered clothing, can leave reddish stains on fixtures, and impart a metallic taste to beverages and food made with it. After a period of time iron deposits can build up in pressure tanks, water heaters, and pipelines, reducing the effective flow rate and efficiency of the water supply.

Iron was not detected in the water sample from your well.

- **Selenium (Se):** The CDPHE selenium standard for human drinking water is 0.05 mg/l and the agricultural standard is 0.02 mg/l. Excessive selenium (Se) (concentrations greater than 0.05 mg/l) can cause loss of hair and/or fingernails as well as adverse effects on the central nervous system. Selenium (Se) occurs naturally in the ground water in many areas of Colorado at concentrations that exceed the drinking water standard.

Selenium was not detected in the sample from your water well.

- Calcium (Ca), Potassium (K), and Magnesium (Mg) were also tested for in your water. There are no standards from CDPHE for these parameters. In addition, the COGCC also collected samples for metals and the Table 1 (attached) presents the analytical laboratory results. Please note that Primary standard (P) is the CDPHE Human Health Standard and the Secondary standard (S) is the CDPHE secondary maximum contaminant level (SMCL).

Table 1
BENTON WATER WELL

METAL/INORGANIC	March 24, 2009 Sample Concentration (in Milligrams per liter [mg/l])	CDPHE Water Quality Standard (P – Primary S-Secondary) (in Milligrams per liter [mg/l])
Arsenic (As)	ND	0.05 (P)
Barium (Ba)	0.047	2.0 (P)
Calcium (Ca)	1.5	NS
Cadmium (Cd)	ND	0.005 (P)
Chromium (Cr)	ND	0.1 (P)
Potassium (K)	1.5	NS
Manganese (Mn)	ND	0.05 (S)
Magnesium (Mg)	0.44	NS
Lead (Pb)	ND	0.05 (P)
pH	8.61	NS

NS – no standard

ND – not detected in the sample

ORGANIC COMPOUNDS ASSOCIATED WITH PETROLEUM HYDROCARBONS

- Benzene: CDPHE's basic ground water standard for benzene is 5 micrograms per liter (µg/l). **Benzene was not detected in the sample from your water well.**
- Toluene: CDPHE's basic ground water standard for toluene is 1,000 µg/l. **Toluene was detected in the sample from your water well at a concentration of 160 µg/l, which is below the CDPHE standard.**
- Ethylbenzene: CDPHE's basic ground water standard for ethylbenzene is 680 µg/l. **Ethylbenzene was not detected in the sample from your water well.**
- Total Xylenes (sum of m,p, and o-xylene): CDPHE's basic ground water standard for total xylenes is 10,000 µg/l. **Total xylenes were not detected in the sample from your water well**

METHANE GAS CONCENTRATION

- **Methane was detected in the sample from your water well at a concentration of 8.7 mg/l.**

Methane gas alone is physiologically inert and non-toxic to humans. Normal breath exhalation contains 1 to 99 ppm of methane (parts per million [ppm] is the same units as mg/l). The presence of methane in drinking water does not present a known health hazard to humans or other animals via ingestion; however, methane in domestic water supplies can be associated with undesirable and potentially serious side effects. Methane gas dissolved in water "exsolves" when exposed to the atmosphere and dissipates rapidly because it is lighter than air. This is often responsible for the "fizzing" observed in water wells that may contain methane gas. If the methane occurs at a high enough concentration and if it is allowed to accumulate in a confined space, such as a well pit, crawl space, closet, etc., an explosion hazard can be established. In addition, if methane concentrations in well water are high, then pockets of free gas form within the water and cause the well pump to cavitate and no longer bring water to the surface.

Methane gas is common in water wells in Colorado. It occurs naturally and the source of the methane is commonly from one or more of the sources listed below.

1. Methane is commonly found as a gas in coal or black shale seams in the subsurface.
2. Methane is commonly found as a byproduct of the decay of organic matter and the presence of bacteria in water wells can provide the conditions favorable for the production of methane either from the activity or decay of bacteria.

As the result of extensive testing for methane gas in water wells throughout Colorado, concentrations of methane gas below 1 mg/l are considered harmless, with concern for possible hazards from the methane increasing at concentration levels in well water at 7 mg/l and higher. You should be aware that the methane gas in your water well is at a high enough concentration that precautions should be taken to adequately vent your water system to avoid potential gas accumulations.

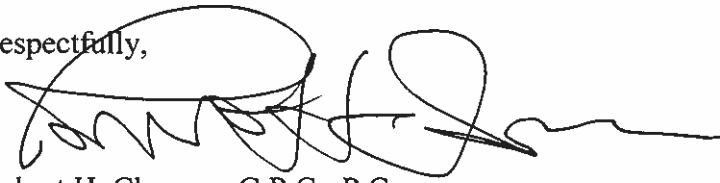
CONCLUSION

Because your water exceeded the CDPHE drinking water (SMCL) standard for total dissolved solids (TDS), and the health advisory for sodium (Na), and because you or your livestock and/or pets drink your water, you may wish to discuss the possible health effects of continued consumption with your physician and/or veterinarian. There are no indications of any oil & gas related impacts to your water well. Under an earlier cover letter the gas and stable isotopic analysis results were sent to your attention. The methane gas in your water well is from natural biological activity (biogenic gas).

The Colorado Oil & Gas Conservation Commission has participated in the publication of a general information pamphlet on water supply wells. Although the pamphlet was written for water well owners in Southwest Colorado, much of the information presented is applicable to any water well within the state. I have enclosed a copy of this publication.

If you have any questions or would like to discuss these matters further, please contact me at the COGCC in Denver via e-mail (robert.chesson@state.co.us) or by phone at 303-894-2100, extension 5112.

Respectfully,

A handwritten signature in black ink, appearing to read 'Robert H. Chesson', with a long horizontal flourish extending to the right.

Robert H. Chesson, C.P.G., P.G.
Environmental Protection Specialist

Enclosures

cc: Dave Neslin – COGCC w/o enclosures
Debbie Baldwin – COGCC w/o enclosures
Mikel Cox – Noble Energy w/o pamphlet
Paul Schneider – Anadarko/KerrMcGee w/o pamphlet

WORK ORDER Summary

Evergreen Analytical, Inc.

09-1994

Rpt To: Brian Dodek

Email To: bdodek@elcnv.com

LT Environmental

4600 W 60th Ave

Arvada, CO 80003

(303) 433-9788

3/27/2009 10:01:36 AM

Client Project ID: Ellsworth Sampling

QC Level: LEVEL 1

Comments EDD Newfields format per client requested. TP

Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Test Code	Test Name	Hold	MS	Date Due	Hold Time
09-1994-01A	Debbie Benton	Groundwater	3/24/09 1610	3/25/09	8021_W *	8021: BTEX, MIB	<input type="checkbox"/>	<input type="checkbox"/>	3/30/09	4/07/09
09-1994-01B	Debbie Benton	Groundwater	3/24/09 1610	3/25/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	4/07/09
09-1994-01C	Debbie Benton	Groundwater	3/24/09 1610	3/25/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/08/09	9/20/09
09-1994-01C	Debbie Benton	Groundwater	3/24/09 1610	3/25/09	6020_D *	6020: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/08/09	9/20/09
09-1994-01D	Debbie Benton	Groundwater	3/24/09 1610	3/25/09	CARB/BICARB_W	Carbonate and Bicarbonate	<input type="checkbox"/>	<input type="checkbox"/>	4/08/09	4/07/09
09-1994-01D	Debbie Benton	Groundwater	3/24/09 1610	3/25/09	COND_W	Specific Conductance @ 25°C	<input type="checkbox"/>	<input type="checkbox"/>	4/08/09	4/21/09
09-1994-01D	Debbie Benton	Groundwater	3/24/09 1610	3/25/09	F_W	Fluoride	<input type="checkbox"/>	<input type="checkbox"/>	4/08/09	4/21/09
09-1994-01D	Debbie Benton	Groundwater	3/24/09 1610	3/25/09	PH_DW	EI50.1 pH	<input type="checkbox"/>	<input type="checkbox"/>	4/08/09	3/25/09
09-1994-01D	Debbie Benton	Groundwater	3/24/09 1610	3/25/09	TDS_W	Total Dissolved Solids (TDS)	<input type="checkbox"/>	<input type="checkbox"/>	4/08/09	3/31/09
09-1994-01E	Debbie Benton	Groundwater	3/24/09 1610	3/25/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	4/08/09	3/26/09

Definitions: * - Test Code has a Select List

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES AGREEMENT **

Evergreen Analytical Laboratory

Page 1 of 1

CLIENT INFORMATION

Mail Original Report to:

Attn: LT Environmental

Address: 4405 W 60th Ave

City: Arvada

Tel: 303-443-9788

REPORT ALSO BY ☐ FAX ☒ PDF ☐ EDD ☐ FAXED CONFIRMATION OF SAMPLE RECEIPT REQUIRED? ☐ YES

REPORT CHROMATOGRAMS ☐ YES

Mail Invoice to:

Attn: SAH

Address: SAH

City: SAH

Tel: SAH

Project ID# Elsworth Sampling

P.O. # ME0903 Quote SAH

Sampler 190D

NOTE: Identify Known Hazards Below

Quality Data on Time®



4036 Youngfield St.

Wheat Ridge, Colorado 80033

(303) 425-6021

FAX (303) 425-6854

(877) 737-4521

E-mail: info@evergreenanalytical.com

Report Results by: _____ (Date)

Standard 2 working weeks

UST Analyses per Fee Schedule

* Rush: ☐ less than 24 hrs. 150%

☒ 3 - 5 work days, 50%

☐ 6 - 9 work days, 25%

* Subject to surcharge & exceptions noted in fee schedule.

For Laboratory Use Only

WO. # 04-1994

B.O.F. # NA

C/S (I) NA

C/S (II) NA

Temp. °C 4.0 / °F ice

Seals Present ☒ Y / ☒ N / ☒ NA

Samples Pres. Y / ☒ N / ☒ NA

Headspace Y / ☒ N / ☒ NA

By: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Signature: SAH

Date: 3/24/09

Time: 16:00

Evergreen Analytical, Inc.

Date: 07-Apr-09

Lab Order: 09-1994

Client Project ID Ellsworth Sampling

CASE NARRATIVE

SAMPLE RECEIVING

Custody seals were present and intact.

The temperature of the sample(s) upon arrival was 4.0°C.

Sample(s) were received in good condition, in the proper container, and within holding times.

VOC sample(s) were marked as preserved on the bottle labels.

VOC sample(s) were received with no headspace present. JD

QUALITY ASSURANCE (QA)

Analyses performed on samples in this work order by EAL meet the requirements of the EAL Quality Assurance Program unless otherwise explained. Analyses of RCRA samples meet the requirements of NELAC and Utah Rule R444-14 unless otherwise explained. Analyses of discharge samples meet the requirements of 40 CFR Part 136 unless otherwise explained. JE

CLIENT SERVICES

There are no anomalies to report. TP

GENERAL CHEMISTRY

Method E300.0: Sample Ellsworth Sampling (09-1994-01) has a high Chloride level and matrix interferences, which required dilution of the sample to separate the Nitrite peak from the Chloride peak and to resolve the Nitrate peak. This raised the reporting limit for Nitrate-N and Nitrite-N. There are no other anomalies to report. JML/MM/JE

METALS ANALYSIS

Method SW6010B: The matrix spike (MS; on another client's sample) recovery for Calcium is outside the QC limits due to the high concentration of Calcium in the sample versus the low concentration of the spike. The Calcium recovery for the laboratory control spike (LCS) is within QC limits, proving the analysis is in control. There are no anomalies to report. WKH/JE

GAS CHROMATOGRAPHY

Method 8021_W: The MtBE recoveries in the matrix spike and matrix sample duplicate (MS/MSD) are above the QC limits. Since the bias for MtBE is high and the sample is non-detect for this analyte, no further action is required. There are no other anomalies to report. JCC/JM/JE

Evergreen Analytical, Inc.

Date: 07-Apr-09

Lab Order: 09-1994

Client Project ID Ellsworth Sampling

CASE NARRATIVE

Method RSK-175: A sample duplicate (DUP) was prepared and analyzed instead of a matrix spike duplicate (MSD) due to limited sample. There are no other anomalies to report. VM

Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

Client Sample ID: Debbie Benton
Client Project ID: Ellsworth Sampling
Date Collected: 3/24/2009
Date Received: 3/25/2009

Lab Work Order 09-1994
Lab Sample ID: 09-1994-01A
Sample Matrix: Groundwater

AROMATIC VOLATILE ORGANICS

Method: SW8021B

Prep Method: SW5030B

Date Prepared: 3/27/2009

Lab File ID: 032709\TA041


Dilution Factor: 1

Date Analyzed: 3/28/2009

Method Blank: MB2032709-2

Analytes	CAS Number	Result	LQL	Units
Methyl-t-butyl ether	1634-04-4	U	5.0	µg/L
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	65	QC Limits: 60-140	%REC


Analyst


Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
E - Extrapolated value. Value exceeds calibration range
H - Sample analysis exceeded analytical holding time
J - Indicates an estimated value when the compound is detected, but is below the LQL
S - Spike Recovery outside accepted limits
U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 3/30/2009

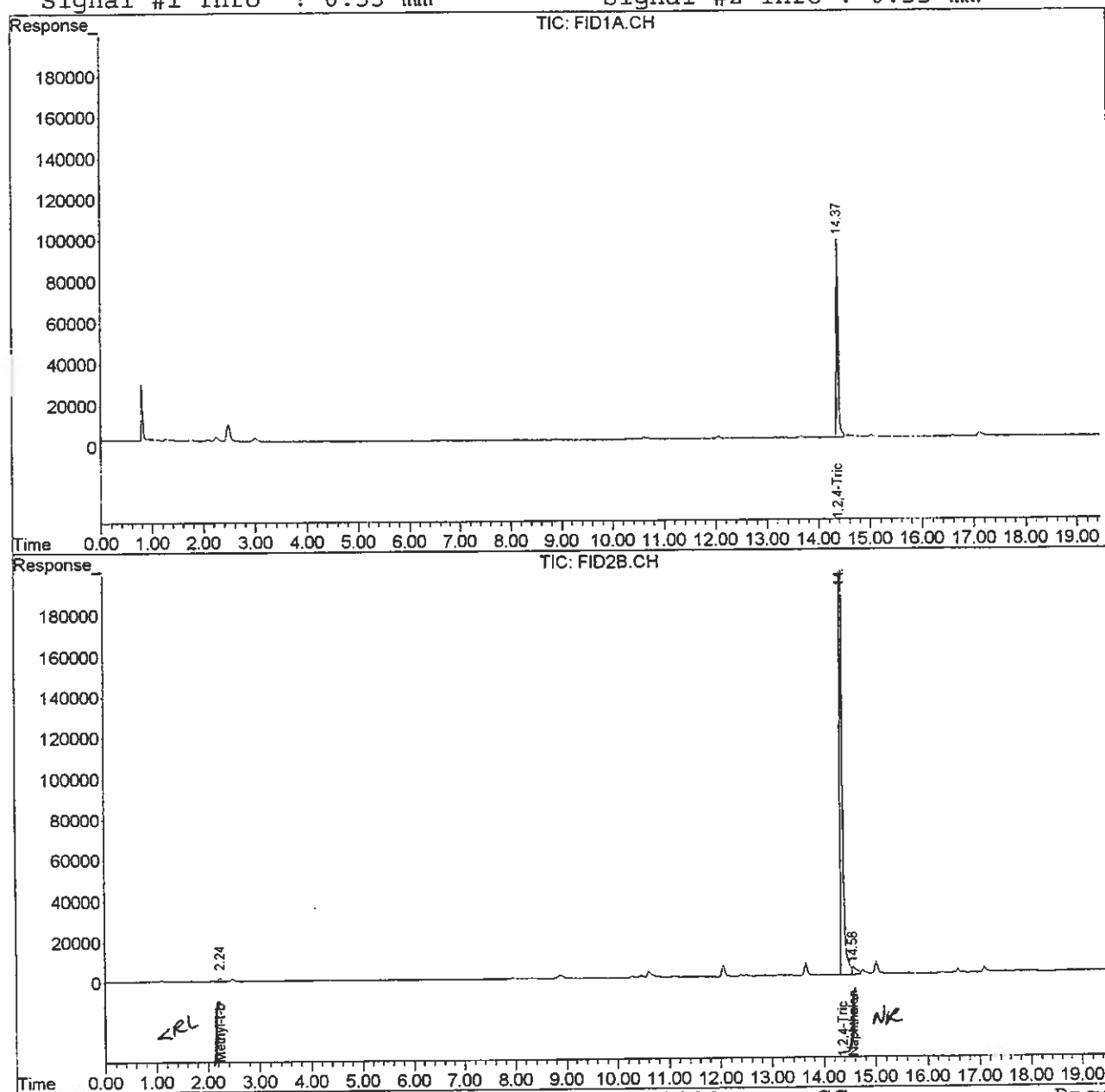
Quantitation Report (Not Reviewed)

900

Signal #1 : E:\DATA\032709\TA041.D\FID1A.CH Vial: 41
Signal #2 : E:\DATA\032709\TA041.D\FID2B.CH
Acq On : 28 Mar 2009 11:01 am Operator: Jennifer C
Sample : 09-1994-01A Inst : TVHBTEX2
Misc : ,SAMP,8021_W,TVH_W,1, Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 30 14:14 2009 Quant Results File: TW20327.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20327.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Mon Mar 30 12:42:08 2009
Response via : Multiple Level Calibration
DataAcq Meth : TVB2.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm



JCC 03/30/09

Evergreen Analytical, Inc.
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
 (303) 425-6021

Client Project ID Ellsworth Sampling

 Lab Order: 09-1994
 Units: mg/L

RSKSOP-175M Headspace

Method: RSKSOP175M

Methane

Prep Method: RSKSOP175M

Lab ID	Client ID	Matrix	Date Received	Collection Date	Date Prepared	Date Analyzed	Results	LQL	DF
09-1994-01B	Debbie Benton	Groundwater	3/25/09	3/24/09	3/30/09	3/30/09	8.7	0.016	20

Comments:

 VM
 Analyst


 Approved

Qualifiers: J - Indicates an estimated value when the compound is detected, but is below the LQL.

H - Sample analysis exceeded analytical holding time

U - Compound analyzed for but not detected

X - See case narrative

*. Value exceeds Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: DF - Dilution Factor

LQL - Lower Quantitation Limit

Print Date: 3/30/2009

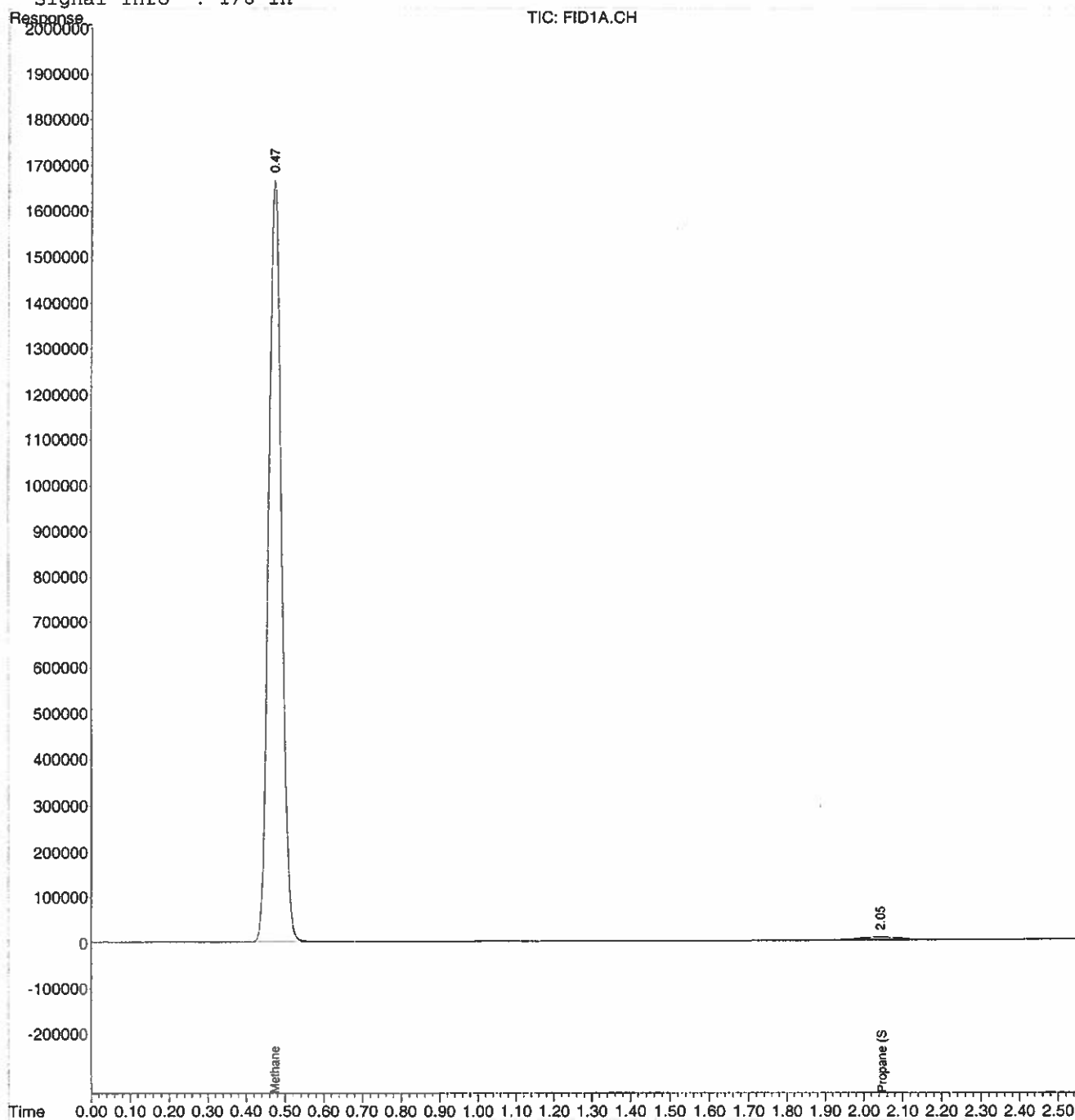
Data File : F:\DATA\033009\FB016.D
Acq On : 30 Mar 2009 1:52 pm
Sample : 09-1994-01B
Misc : SAMP, MEEP_W, 20, 25uL
IntFile : autoint1.e

Vial: 16
Operator: Virginia Meyer
Inst : FID4
Multiplr: 1.00

Quant Time: Mar 30 14:56 2009 Quant Results File: GAS0324.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0324.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Mar 24 10:10:57 2009
Response via : Multiple Level Calibration
DataAcq Meth : GAS.M

Volume Inj. : 100uL
Signal Phase : Porapak Q 80/100
Signal Info : 1/8 in



Evergreen Analytical, Inc.
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
 (303) 425-6021

Client Sample ID: Debbie Benton
 Client Project ID: Ellsworth Sampling
 Date Collected: 3/24/09
 Date Received: 3/25/09

Lab Work Order: 09-1994
 Lab Sample ID: 09-1994-01
 Sample Matrix: Groundwater

DISSOLVED METALS

Method: SW6010B

Prep Method: E200.7/SW3010A

Date Prepared: 3/30/09
 Date Analyzed: 4/2/09

Lab File ID: 040109PM
 Method Blank: MB-18612

Dilution Factor: 1
 Lab Fraction ID: 09-1994-01C

Analytes	CAS Number	Result	LQL	Units
Calcium	7440-70-2	1.5	0.39	mg/L
Iron	7439-89-6	U	0.070	mg/L
Magnesium	7439-95-4	0.44	0.15	mg/L
Manganese	7439-96-5	U	0.0050	mg/L
Potassium	7440-09-7	1.5	0.34	mg/L
Sodium	7440-23-5	290	0.40	mg/L

DISSOLVED METALS

Method: SW6020

Prep Method: SW6020

Date Prepared: 4/2/09
 Date Analyzed: 4/5/09

Lab File ID: 090405A.B\033SMPL.D
 Method Blank: MB-18653

Dilution Factor: 1
 Lab Fraction ID: 09-1994-01C

Analytes	CAS Number	Result	LQL	Units
Arsenic	7440-38-2	U	0.0020	mg/L
Barium	7440-39-3	0.047	0.025	mg/L
Cadmium	7440-43-9	U	0.0010	mg/L
Chromium	7440-47-3	U	0.0050	mg/L
Lead	7439-92-1	U	0.0050	mg/L
Selenium	7782-49-2	U	0.0050	mg/L


 Analyst


 Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
 E - Extrapolated value. Value exceeds calibration range
 H - Sample analysis exceeded analytical holding time
 J - Indicates an estimated value when the compound is detected, but is below the LQL
 S - Spike Recovery outside accepted limits
 U - Compound analyzed for but not detected
 X - See case narrative
 * - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable
 LQL - Lower Quantitation Limit
 Surr - Surrogate

Print Date: 4/6/2009

Evergreen Analytical, Inc.
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
 (303) 425-6021

Client Sample ID Debbie Benton
 Client Project ID Ellsworth Sampling
 Date Collected: 3/24/09 1610
 Date Received: 3/25/09

Lab Work Order 09-1994
 Lab Sample ID: 09-1994-01
 Sample Matrix: Groundwater

CARBONATE AND BICARBONATE

Method: SM2320 B

Prep Method:

Date Prepared: 3/31/09	Lab File ID: 148	Dilution Factor: 1
Date Analyzed: 3/31/09	Method Blank: MBLK 3/31/09	Lab Fraction ID: 09-1994-01D

Analytes	CAS Number	Result	LQL	Units
Bicarbonate		570	5.0	mg/L
Carbonate		17.1	5.0	mg/L

SPECIFIC CONDUCTANCE @ 25°C

Method: SM2510 B

Prep Method:

Date Prepared: 3/31/09	Lab File ID: 64	Dilution Factor: 1
Date Analyzed: 3/31/09		Lab Fraction ID: 09-1994-01D

Analytes	CAS Number	Result	LQL	Units
Specific Conductance		967	1.00	µmhos/cm

FLUORIDE

Method: SM 4500-F C

Prep Method:

Date Prepared: 3/27/09	Lab File ID: 64	Dilution Factor: 1
Date Analyzed: 3/27/09	Method Blank: MBLK 032709	Lab Fraction ID: 09-1994-01D

Analytes	CAS Number	Result	LQL	Units
Fluoride	16984-48-8	3.0	0.20	mg/L

E150.1 PH

Method: E150.1

Prep Method:

Date Prepared: 3/25/09		Dilution Factor: 1
Date Analyzed: 3/25/09 1310		Lab Fraction ID: 09-1994-01D

Analytes	CAS Number	Result	LQL	Units
pH		8.61	1.00	pH Units


 Analyst


 Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
 E - Extrapolated value. Value exceeds calibration range
 H - Sample analysis exceeded analytical holding time
 J - Indicates an estimated value when the compound is detected, but is below the LQL
 S - Spike Recovery outside accepted limits
 U - Compound analyzed for but not detected
 X - See case narrative
 * - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable
 LQL - Lower Quantitation Limit
 Surr - Surrogate

Print Date: 4/2/2009

Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

Client Sample ID Debbie Benton
Client Project ID Ellsworth Sampling
Date Collected: 3/24/09 1610
Date Received: 3/25/09

Lab Work Order 09-1994
Lab Sample ID: 09-1994-01
Sample Matrix: Groundwater

TOTAL DISSOLVED SOLIDS (TDS)

Method: SM 2540C

Prep Method:

Date Prepared: 3/31/09
Date Analyzed: 3/31/09

Lab File ID: 5
Method Blank: MBLK 03/31/09

Dilution Factor: 1
Lab Fraction ID: 09-1994-01D

Analytes	CAS Number	Result	LQL	Units
Total Dissolved Solids		652	10.0	mg/L


Analyst


Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
E - Extrapolated value. Value exceeds calibration range
H - Sample analysis exceeded analytical holding time
J - Indicates an estimated value when the compound is detected, but is below the LQL
S - Spike Recovery outside accepted limits
U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, I.Q.L. exceeds MCL.

Definitions: NA - Not Applicable
LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 4/2/2009

Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

Client Sample ID: Debbie Benton
Client Project ID: Ellsworth Sampling
Date Collected: 3/24/09 1610
Date Received: 3/25/09

Lab Work Order: 09-1994
Lab Sample ID: 09-1994-01
Sample Matrix: Groundwater

ANIONS BY IC

Method: E300.0

Prep Method:

Date Prepared: 3/26/09

Date Analyzed: 3/26/09 1156

Method Blank: MB 03/26/09

Dilution Factor: 1

Lab Fraction ID: 09-1994-01E

Analytes	CAS Number	Result	LQL	Units
Bromide	7647-15-6	0.53	0.20	mg/L
Sulfate	7778-80-2	U	0.50	mg/L

Date Prepared: 3/26/09

Date Analyzed: 3/26/09 1325

Method Blank: MB 03/26/09

Dilution Factor: 5

Lab Fraction ID: 09-1994-01E

Analytes	CAS Number	Result	LQL	Units
Chloride	7647-14-5	53.3	2.5	mg/L
Nitrite-N		U	0.31	mg/L
Nitrate-N		U	0.23	mg/L


Analyst


Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
E - Extrapolated value. Value exceeds calibration range
H - Sample analysis exceeded analytical holding time
J - Indicates an estimated value when the compound is detected, but is below the LQL
S - Spike Recovery outside accepted limits
U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable
LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 3/27/09