

received 09/09/2015
Project 9297
Remediation 200437747
Document 2495473

Attachment A

Analytical Sample Results

March 27, 2013 Sampling Event

ATTACHMENT 1A. COLORADO DIVISION OF WATER RESOURCES WATER WELL RECEIPT NUMBER 9063879

**SAMPLE ID: 7_3N_66W_HENRICKSON, SAMPLE DATE: 3/27/2013
KERR MCGEE OIL AND GAS ONSHORE LP, WELD COUNTY, COLORADO**

Analyte	Result	Units	Regulatory Limit
Alkalinity, Bicarbonate	448	mg/L	N/A
Alkalinity, Carbonate	ND(6)	mg/L	N/A
Alkalinity, Total	452	mg/L	N/A
Benzene	ND(0.005)	mg/L	N/A
Calcium	3.67	mg/L	N/A
Chloride	50.9	mg/L	250
Ethylbenzene	ND(0.005)	mg/L	N/A
Fluoride	1.82	mg/L	N/A
Iron	ND(0.2)	mg/L	0.3
Magnesium	0.724	mg/L	N/A
Manganese	0.0107	mg/L	0.05
Methane	13	mg/L	N/A
Nitrate as N	ND(0.1)	mg/L	10
Nitrite as N	ND(0.1)	mg/L	1
Nitrogen, Nitrate & Nitrite	ND(0.2)	mg/L	N/A
pH, Field	8.73	Std Units	N/A
Potassium	1.33	mg/L	N/A
Selenium	ND(0.005)	mg/L	0.02
Sodium	214	mg/L	N/A
Specific Conductance, Lab	999	umhos/cm	N/A
Sulfate	3.87	mg/L	250
Toluene	ND(0.005)	mg/L	N/A
Total Dissolved Solids	578	mg/L	500
Xylenes, Total	ND(0.015)	mg/L	N/A

Notes:

ND(RL) = Non-detect (reporting limit)

Lab qualifiers (i.e. letters next to the result) are defined in the lab report

n/a = regulatory limit not available for the analyte; The regulatory limit shown is the most stringent of the Colorado Primary Drinking Water Standards, Colorado Groundwater Standards, or Colorado Secondary Drinking Water Standards.

Std Units = Standard Units

ATTACHMENT 1B. COLORADO DIVISION OF WATER RESOURCES WATER WELL RECEIPT NUMBER 9063879

SAMPLE ID: 7_3N_66W_HENRICKSON, SAMPLE DATE: 3/27/2013
KERR MCGEE OIL AND GAS ONSHORE LP, WELD COUNTY, COLORADO

Analyte	Result	Units	Regulatory Limit
Carbon Monoxide	ND	%	n/a
Hydrogen Sulfide	NA	%	n/a
Helium	NA	%	n/a
Hydrogen	ND	%	n/a
Argon	0.51	%	n/a
Oxygen	10.89	%	n/a
Nitrogen	23.48	%	n/a
Carbon Dioxide	0.21	%	n/a
Methane (CH ₄)	50.09	%	n/a
δ ¹³ C from CH ₄	-47.40	‰	n/a
δD from CH ₄	-234.9	‰	n/a
Ethane	8.98	%	n/a
Ethylene	ND	%	n/a
Propane	4.08	%	n/a
Propylene	ND	%	n/a
Iso-butane	0.428	%	n/a
N-butane	0.893	%	n/a
Iso-pentane	0.179	%	n/a
N-pentane	0.14	%	n/a
Hexanes	0.124	%	n/a

Notes:

Isotopic analysis conducted at Isotech Laboratories Inc

Chemical compositions are normalized to 100%. Mol.% is approximately equal to vol%. Additional information provided in attached lab report

n/a = regulatory limit not available for the analyte

ND = Not detected

NA = Not analyzed

April 16, 2013 Sampling Event

ATTACHMENT 1A. COLORADO DIVISION OF WATER RESOURCES WATER WELL RECEIPT NUMBER 9062259

SAMPLE ID: 7_3N_66W_HENRICKSONRS, SAMPLE DATE: 4/16/2013

KERR MCGEE OIL AND GAS ONSHORE LP, WELD COUNTY, COLORADO

Analyte	Result	Units	Regulatory Limit
Methane	12.7	mg/L	n/a

Notes:

n/a = regulatory limit not available for the analyte

ND = Not detected

mg/L = milligrams per liter

ATTACHMENT 1B. COLORADO DIVISION OF WATER RESOURCES WATER WELL RECEIPT NUMBER 9062259

SAMPLE ID: 7_3N_66W_HENRICKSONRS1, SAMPLE DATE: 4/16/2013

KERR MCGEE OIL AND GAS ONSHORE LP, WELD COUNTY, COLORADO

Analyte	Result	Units	Regulatory Limit
Carbon Monoxide	ND	%	n/a
Hydrogen Sulfide	NA	%	n/a
Helium	NA	%	n/a
Hydrogen	ND	%	n/a
Argon	0.531	%	n/a
Oxygen	11.16	%	n/a
Nitrogen	23.77	%	n/a
Carbon Dioxide	0.23	%	n/a
Methane (CH ₄)	49.66	%	n/a
δ ¹³ C from CH ₄	-47.51	‰	n/a
δD from CH ₄	-231.3	‰	n/a
Ethane	8.84	%	n/a
Ethylene	ND	%	n/a
Propane	4.07	%	n/a
Propylene	ND	%	n/a
Iso-butane	0.426	%	n/a
N-butane	0.869	%	n/a
Iso-pentane	0.175	%	n/a
N-pentane	0.137	%	n/a
Hexanes	0.131	%	n/a

Notes:

Isotopic analysis conducted at Isotech Laboratories Inc

Chemical compositions are normalized to 100%. Mol.% is approximately equal to vol%. Additional information provided in attached lab report

n/a = regulatory limit not available for the analyte

ND = Not detected

NA = Not analyzed

July 16, 2013 Sampling Event

TABLE 1
WATER WELL SAMPLE RESULTS
12735 County Road 34, Permit #15631
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: 7/16/2013

Analyte	Result	Units	Regulatory Limit
Ethane	26,000	ug/L	n/a
Methane	9,100	ug/L	n/a
Propane	5,600	ug/L	n/a

Notes:

ND(RL) = Non-detect (reporting limit)

Lab qualifiers (i.e. letters next to result) are defined in the lab report

n/a = regulatory limit not available for the analyte

TABLE 2
WATER WELL SAMPLE ISOTOPIC ANALYSIS RESULTS
12735 County Road 34, Permit #15631
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: 7/16/2013

Analyte	Result	Units ^a	Regulatory Limit
Nitrogen (N ₂)	9.98	mol %	n/a
Oxygen + Argon (O ₂ +Ar)	3.70	mol %	n/a
Carbon Dioxide (CO ₂)	0.13	mol %	n/a
Helium (He)	na	mol %	n/a
Hydrogen (H ₂)	na	mol %	n/a
Methane (CH ₄)	70.19	mol %	n/a
Ethane (C ₂ H ₆)	9.63	mol %	n/a
Propane (C ₃ H ₈)	4.47	mol %	n/a
iso-Butane (C ₄ H ₁₀)	0.53	mol %	n/a
n-Butane (C ₄ H ₁₀)	0.95	mol %	n/a
iso-Pentane (C ₅ H ₁₂)	0.19	mol %	n/a
n-Pentane (C ₅ H ₁₂)	0.13	mol %	n/a
Hexanes + (C ₆ H ₁₄)	0.09	mol %	n/a

Notes:

Isotopic analysis conducted at Dolan Integration Group

^a Chemical compositions are normalized to 100% (Mol. % is approximately equal to Vol. %). Additional information provided in attached lab report n/a = regulatory limit not available for the analyte

ND = Not detected

na = Not analyzed

October 22, 2013 Sampling Event

TABLE 1
WATER WELL SAMPLE RESULTS
12735 County Road 34, Permit #15631,
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: October 22, 2013

Analyte	Result	Units	Regulatory Limit
Ethane	7,600	ug/L	n/a
Methane	22,000	ug/L	n/a
Propane	4,700	ug/L	n/a

Notes:

ND (RL) = Non-detect (reporting limit)

Lab qualifiers (i.e. letters next to result) are defined in the lab report

n/a = regulatory limit not available for the analyte

July 15, 2014 Sampling Event

TABLE 2
WATER WELL SAMPLE RESULTS
12735 County Road 34, Permit #15631,
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: July 15, 2014

Analyte	Result	Units	Regulatory Limit
Alkalinity, Bicarbonate	450	mg/L	n/a
Alkalinity, Carbonate	21	mg/L	n/a
Alkalinity, Total	470	mg/L	n/a
Bacteria, Iron Related	9,000	CFU/mL	n/a
Bacteria, Slime Forming	12,500	CFU/mL	n/a
Bacteria, Sulfate Reducing	5,000	CFU/mL	n/a
Barium	71	ug/L	2,000
Benzene	ND	ug/L	5
Boron	160	ug/L	750
Bromide	0.48	mg/L	n/a
Calcium	3,500	ug/L	n/a
Chloride	48	mg/L	250
Diesel Range Organics	ND	mg/L	n/a
Ethane	3,500	ug/L	n/a
Ethylbenzene	ND	ug/L	700
Fluoride	1.8	mg/L	2.0
Gasoline Range Organics	0.56	mg/L	n/a
Iron	ND	ug/L	300
Magnesium	780	ug/L	n/a
Manganese	7.5	ug/L	50
Methane	12,000	ug/L	n/a
Nitrogen, Nitrate	ND	mg/L	10
Nitrogen, Nitrite	ND	mg/L	1
pH	8.46	Standard Units	6.5-8.5
Phosphorus, Total	0.072	mg/L	n/a
Propane	2,100	ug/L	n/a
Potassium	1,200	ug/L	n/a
Selenium	ND	ug/L	20
Sodium	230,000	ug/L	n/a
Specific Conductivity	957	µmhos/cm	n/a
Strontium	110	ug/L	n/a
Sulfate	ND	mg/L	250
Toluene	ND	ug/L	1,000
Total Dissolved Solids	570	mg/L	500
Xylene, Total	ND	ug/L	10,000

Notes:

ND (RL) = Non-detect (reporting limit)

Lab qualifiers (i.e. letters next to result) are defined in the lab report

n/a = regulatory limit not available for the analyte

TABLE 3
WATER WELL SAMPLE ISOTOPIC ANALYSIS RESULTS
12735 County Road 34, Permit #15631,
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: July 15, 2014

Analyte	Result	Units ^a	Regulatory Limit
δD of water	-108.6	‰ relative to VSMOW	n/a
$\delta^{18}O$ of water	-14.31	‰ relative to VSMOW	n/a
Tritium content of water	na	‰	n/a
$\delta^{13}C$ of DIC	-12.0	‰ relative to VPDB	n/a
^{14}C content of DIC	na	‰	n/a
$\delta^{15}N$ of nitrate	na	‰	n/a
$\delta^{18}O$ of nitrate	na	‰	n/a
$\delta^{34}S$ of sulfate	na	‰	n/a
$\delta^{18}O$ of sulfate	na	‰	n/a

Notes:

Isotopic analysis conducted at Isotech Laboratories Inc.

n/a = regulatory limit not available for the analyte

na = Not analyzed

TABLE 4
WATER WELL SAMPLE ISOTOPIC ANALYSIS RESULTS
12735 County Road 34, Permit #15631,
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: July 15, 2014

Analyte	Result	Units ^a	Regulatory Limit
Carbon Monoxide	nd	mol %	n/a
Helium	na	mol %	n/a
Hydrogen	nd	mol %	n/a
Argon	0.259	mol %	n/a
Oxygen	1.03	mol %	n/a
Nitrogen	14.11	mol %	n/a
Carbon Dioxide	0.31	mol %	n/a
Methane	70.98 (36 mg/l)	mol %	n/a
Ethane	8.29	mol %	n/a
Ethylene	nd	mol %	n/a
Propane	3.63	mol %	n/a
Propylene	nd	mol %	n/a
Iso-butane	0.382	mol %	n/a
N-butane	0.733	mol %	n/a
Iso-pentane	0.132	mol %	n/a
N-pentane	0.0973	mol %	n/a
Hexanes +	0.0480	mol %	n/a

Notes:

Isotopic analysis conducted at Isotech Laboratories, Inc.

^a Chemical compositions are normalized to 100% (Mol. % is approximately equal to Vol. %). Additional information provided in attached lab report n/a = regulatory limit not available for the analyte

ND = Not detected

NA = Not analyzed

n/a = regulatory limit not available for the analyte

November 18, 2014 Sampling Event

TABLE 1
WATER WELL SAMPLE RESULTS
12735 County Road 34, Permit #15631,
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: 11/18/2014

Analyte	Result	Units	Regulatory Limit
Alkalinity, Bicarbonate	392	mg/L	n/a
Alkalinity, Carbonate	8.1	mg/L	n/a
Alkalinity, Total	400	mg/L	n/a
Bacteria, Iron Reducing	2,300	CFU/mL	n/a
Bacteria, Slime Forming	6,500	CFU/mL	n/a
Bacteria, Sulfate Reducing	18,000	CFU/mL	n/a
Barium	0.0771	mg/L	2
Benzene	1.6	ug/L	5
Boron	0.0977	mg/L	0.75
Bromide	0.073	mg/L	n/a
Calcium	3.69	mg/L	n/a
Chloride	48.3	mg/L	250
Diesel Range Organics	ND	mg/L	n/a
Ethane	0.903	mg/L	n/a
Ethylbenzene	ND	ug/L	700
Fluoride	1.7	mg/L	2.0
Gasoline Range Organics	0.364	mg/L	n/a
Iron	0.0199	mg/L	0.3
Magnesium	0.760	mg/L	n/a
Manganese	0.0114	mg/L	0.05
Methane	6.00	mg/L	n/a
Nitrogen, Nitrate	ND	mg/L	10
Nitrogen, Nitrite	ND	mg/L	1
pH	8.30	Standard Units	6.5-8.5
Phosphorus, Total	0.018	mg/L	n/a
Propane	0.460	mg/L	n/a
Potassium	1.07	mg/L	n/a
Selenium	ND	mg/L	0.02
Sodium	204	mg/L	n/a
Specific Conductivity	754	µmhos/cm	n/a
Strontium	0.117	mg/L	n/a
Sulfate	ND	mg/L	250
Toluene	ND	ug/L	1,000
Total Dissolved Solids	552	mg/L	500
Xylene, Total	ND	ug/L	10,000

Notes:

ND (RL) = Non-detect (reporting limit)

Lab qualifiers (i.e. letters next to result) are defined in the lab report

n/a = regulatory limit not available for the analyte

TABLE 2
WATER WELL SAMPLE ISOTOPIC ANALYSIS RESULTS
12735 County Road 34, Permit #15631,
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: 11/18/2014

Analyte	Result	Units ^a	Regulatory Limit
δD of water	-109.2	‰ relative to VSMOW	n/a
$\delta^{18}O$ of water	-14.25	‰ relative to VSMOW	n/a
Tritium content of water	na	‰	n/a
$\delta^{13}C$ of DIC	-12.5	‰ relative to VPDB	n/a
^{14}C content of DIC	na	‰	n/a
$\delta^{15}N$ of nitrate	na	‰	n/a
$\delta^{18}O$ of nitrate	na	‰	n/a
$\delta^{34}S$ of sulfate	na	‰	n/a
$\delta^{18}O$ of sulfate	na	‰	n/a

Notes:

Isotopic analysis conducted at Isotech Laboratories Inc.

n/a = regulatory limit not available for the analyte

na = Not analyzed

TABLE 3
WATER WELL SAMPLE ISOTOPIC ANALYSIS RESULTS
12735 County Road 34, Permit #15631,
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: 11/18/2014

Analyte	Result	Units ^a	Regulatory Limit
Carbon Monoxide	nd	mol %	n/a
Helium	na	mol %	n/a
Hydrogen	nd	mol %	n/a
Argon	0.884	mol %	n/a
Oxygen	5.37	mol %	n/a
Nitrogen	47.47	mol %	n/a
Carbon Dioxide	0.46	mol %	n/a
Methane	40.96 (15 mg/L)	mol %	n/a
Ethane	3.17	mol %	n/a
Ethylene	nd	mol %	n/a
Propane	1.20	mol %	n/a
Propylene	0.0005	mol %	n/a
Iso-butane	0.126	mol %	n/a
N-butane	0.243	mol %	n/a
Iso-pentane	0.0502	mol %	n/a
N-pentane	0.0365	mol %	n/a
Hexanes +	0.0250	mol %	n/a

Notes:

Isotopic analysis conducted at Isotech Laboratories, Inc.

^a Chemical compositions are normalized to 100% (Mol. % is approximately equal to Vol. %). Additional information provided in attached lab report n/a = regulatory limit not available for the analyte

ND = Not detected

NA = Not analyzed

n/a = regulatory limit not available for the analyte

February 25, 2015 Sampling Event

TABLE 1
WATER WELL SAMPLE RESULTS
12735 County Road 34, Permit #15631,
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: 2/25/2015

Analyte	Result	Units	Regulatory Limit
Alkalinity, Bicarbonate	383	mg/L	n/a
Alkalinity, Carbonate	6.5	mg/L	n/a
Alkalinity, Total	390	mg/L	n/a
Bacteria, Iron Reducing	2,300	CFU/mL	n/a
Bacteria, Slime Forming	6,500	CFU/mL	n/a
Bacteria, Sulfate Reducing	1,200	CFU/mL	n/a
Barium	0.0660	mg/L	2
Benzene	1.3	ug/L	5
Boron	0.102	mg/L	0.75
Bromide	0.46	mg/L	n/a
Calcium	4.13	mg/L	n/a
Chloride	48.4	mg/L	250
Diesel Range Organics	ND	mg/L	n/a
Ethane	2.47	mg/L	n/a
Ethylbenzene	ND	ug/L	700
Fluoride	1.8	mg/L	2.0
Gasoline Range Organics	0.988	mg/L	n/a
Iron	0.0424	mg/L	0.3
Magnesium	0.839	mg/L	n/a
Manganese	0.0161	mg/L	0.05
Methane	10.8	mg/L	n/a
Nitrogen, Nitrate	ND	mg/L	10
Nitrogen, Nitrite	ND	mg/L	1
pH	8.21	Standard Units	6.5-8.5
Phosphorus, Total	0.029	mg/L	n/a
Propane	1.94	mg/L	n/a
Potassium	1.45	mg/L	n/a
Selenium	ND	mg/L	0.02
Sodium	218	mg/L	n/a
Specific Conductivity	718	µmhos/cm	n/a
Strontium	0.129	mg/L	n/a
Sulfate	ND	mg/L	250
Toluene	233	ug/L	1,000
Total Dissolved Solids	524	mg/L	500
Xylene, Total	ND	ug/L	10,000

Notes:

ND (RL) = Non-detect (reporting limit)

Lab qualifiers (i.e. letters next to result) are defined in the lab report

n/a = regulatory limit not available for the analyte

TABLE 2
WATER WELL SAMPLE ISOTOPIC ANALYSIS RESULTS
12735 County Road 34, Permit #15631,
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: 2/25/2015

Analyte	Result	Units ^a	Regulatory Limit
δD of water	-109.9	‰ relative to VSMOW	n/a
$\delta^{18}\text{O}$ of water	-14.39	‰ relative to VSMOW	n/a
Tritium content of water	na	‰	n/a
$\delta^{13}\text{C}$ of DIC	-12.7	‰ relative to VPDB	n/a
^{14}C content of DIC	na	‰	n/a
$\delta^{15}\text{N}$ of nitrate	na	‰	n/a
$\delta^{18}\text{O}$ of nitrate	na	‰	n/a
$\delta^{34}\text{S}$ of sulfate	na	‰	n/a
$\delta^{18}\text{O}$ of sulfate	na	‰	n/a

Notes:

Isotopic analysis conducted at Isotech Laboratories Inc.

n/a = regulatory limit not available for the analyte

na = Not analyzed

TABLE 3
WATER WELL SAMPLE ISOTOPIC ANALYSIS RESULTS
12735 County Road 34, Permit #15631,
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: 2/25/2015

Analyte	Result	Units ^a	Regulatory Limit
Carbon Monoxide	nd	mol %	n/a
Helium	na	mol %	n/a
Hydrogen	nd	mol %	n/a
Argon	0.339 (0.44 mg/L)	mol %	n/a
Oxygen	0.44	mol %	n/a
Nitrogen	18.59 (15 mg/L)	mol %	n/a
Carbon Dioxide	0.36	mol %	n/a
Methane	69.16 (36 mg/L)	mol %	n/a
Ethane	6.98 (7.4 mg/L)	mol %	n/a
Ethylene	nd	mol %	n/a
Propane	3.06 (4.5 mg/L)	mol %	n/a
Propylene	nd	mol %	n/a
Iso-butane	0.353	mol %	n/a
N-butane	0.552	mol %	n/a
Iso-pentane	0.0896	mol %	n/a
N-pentane	0.0556	mol %	n/a
Hexanes +	0.0196	mol %	n/a

Notes:

Isotopic analysis conducted at Isotech Laboratories, Inc.

^a Chemical compositions are normalized to 100% (Mol. % is approximately equal to Vol. %). Additional information provided in attached lab report n/a = regulatory limit not available for the analyte

ND = Not detected

NA = Not analyzed

n/a = regulatory limit not available for the analyte

May 12, 2015 Sampling Event

TABLE 1
WATER WELL SAMPLE RESULTS
12735 County Road 34, Permit #15631
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: 5/12/2015

Analyte	Result	Units	Regulatory Limit
Alkalinity, Bicarbonate	410	mg/L	n/a
Alkalinity, Carbonate	12.1	mg/L	n/a
Alkalinity, Total	422	mg/L	n/a
Bacteria, Iron Reducing	74,500	CFU/mL	n/a
Bacteria, Slime Forming	ND	CFU/mL	n/a
Bacteria, Sulfate Reducing	9,600	CFU/mL	n/a
Barium	0.0679	mg/L	2
Benzene	1.2	ug/L	5
Boron	0.111	mg/L	0.75
Bromide	0.50	mg/L	n/a
Calcium	3.98	mg/L	n/a
Chloride	49.2	mg/L	250
Diesel Range Organics	ND	mg/L	n/a
Ethane	5.05	mg/L	n/a
Ethylbenzene	ND	ug/L	700
Fluoride	1.9	mg/L	2.0
Gasoline Range Organics	1.05	mg/L	n/a
Iron	0.0251	mg/L	0.3
Magnesium	0.858	mg/L	n/a
Manganese	0.0135	mg/L	0.05
Methane	15.1	mg/L	n/a
Nitrogen, Nitrate	ND	mg/L	10
Nitrogen, Nitrite	ND	mg/L	1
pH	7.89	Standard Units	6.5-8.5
Phosphorus, Total	0.016	mg/L	n/a
Propane	3.36	mg/L	n/a
Potassium	1.43	mg/L	n/a
Selenium	ND	mg/L	0.02
Sodium	215	mg/L	n/a
Specific Conductivity	761	µmhos/cm	n/a
Strontium	0.125	mg/L	n/a
Sulfate	ND	mg/L	250
Toluene	22.7	ug/L	1,000
Total Dissolved Solids	540	mg/L	500
Xylene, Total	ND	ug/L	10,000

Notes:

ND = Not detected above method reporting limit

Lab qualifiers (i.e. letters next to result) are defined in the lab report

n/a = regulatory limit not available for the analyte

TABLE 2
WATER WELL SAMPLE ISOTOPIC ANALYSIS RESULTS
12735 County Road 34, Permit #15631
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: 5/12/2015

Analyte	Result	Units ^a	Regulatory Limit
δD of water	-109.9	‰ relative to VSMOW	n/a
$\delta^{18}O$ of water	-14.26	‰ relative to VSMOW	n/a
Tritium content of water	na	‰	n/a
$\delta^{13}C$ of DIC	-12.6	‰ relative to VPDB	n/a
^{14}C content of DIC	na	‰	n/a
$\delta^{15}N$ of nitrate	na	‰	n/a
$\delta^{18}O$ of nitrate	na	‰	n/a
$\delta^{34}S$ of sulfate	na	‰	n/a
$\delta^{18}O$ of sulfate	na	‰	n/a

Notes:

Isotopic analysis conducted at Isotech Laboratories Inc.

n/a = regulatory limit not available for the analyte

na = Not analyzed

TABLE 3
WATER WELL SAMPLE ISOTOPIC ANALYSIS RESULTS
12735 County Road 34, Permit #15631
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: 5/12/2015

Analyte	Result	Units ^a	Regulatory Limit
Carbon Monoxide	nd	mol %	n/a
Helium	na	mol %	n/a
Hydrogen	nd	mol %	n/a
Argon	0.0857 (0.13 mg/L)	mol %	n/a
Oxygen	1.00	mol %	n/a
Nitrogen	3.92 (3.7 mg/L)	mol %	n/a
Carbon Dioxide	0.29	mol %	n/a
Methane	77.49 (49 mg/L)	mol %	n/a
Ethane	11.17 (14 mg/L)	mol %	n/a
Ethylene	nd	mol %	n/a
Propane	4.58 (8.1 mg/L)	mol %	n/a
Propylene	nd	mol %	n/a
Iso-butane	0.435	mol %	n/a
N-butane	0.807	mol %	n/a
Iso-pentane	0.118	mol %	n/a
N-pentane	0.0788	mol %	n/a
Hexanes +	0.0275	mol %	n/a

Notes:

Isotopic analysis conducted at Isotech Laboratories, Inc.

^a Chemical compositions are normalized to 100% (Mol. % is approximately equal to Vol. %). Additional information provided in attached lab report n/a = regulatory limit not available for the analyte

nd = Not detected above method reporting limit

na = Not analyzed

n/a = regulatory limit not available for the analyte

July 14, 2015 Sampling Event

TABLE 1
WATER WELL SAMPLE RESULTS
12735 County Road 34, Permit #15631
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: 7/14/2015

Analyte	Result	Units	Regulatory Limit
Alkalinity, Bicarbonate	388	mg/L	n/a
Alkalinity, Carbonate	11.5	mg/L	n/a
Alkalinity, Total	400	mg/L	n/a
Bacteria, Iron Related	9,000	CFU/mL	n/a
Bacteria, Slime Forming	66,500	CFU/mL	n/a
Bacteria, Sulfate Reducing	700	CFU/mL	n/a
Barium	0.0663	mg/L	2
Benzene	0.47	ug/L	5
Boron	0.109	mg/L	0.75
Bromide	0.49	mg/L	n/a
Calcium	3.28	mg/L	n/a
Chloride	48.9	mg/L	250
Diesel Range Organics	ND	mg/L	n/a
Ethane	4.17	mg/L	n/a
Ethylbenzene	ND	ug/L	700
Fluoride	1.8	mg/L	2.0
Gasoline Range Organics	0.947	mg/L	n/a
Iron	0.0138	mg/L	0.3
Magnesium	0.682	mg/L	n/a
Manganese	0.0080	mg/L	0.05
Methane	12.0	mg/L	n/a
Nitrogen, Nitrate	ND	mg/L	10
Nitrogen, Nitrite	0.012	mg/L	1
pH	8.56	Standard Units	6.5-8.5
Phosphorus, Total	ND	mg/L	n/a
Propane	2.56	mg/L	n/a
Potassium	1.45	mg/L	n/a
Selenium	ND	mg/L	0.02
Sodium	213	mg/L	n/a
Specific Conductivity	783	µmhos/cm	n/a
Strontium	0.112	mg/L	n/a
Sulfate	ND	mg/L	250
Toluene	ND	ug/L	1,000
Total Dissolved Solids	568	mg/L	500
Xylene, Total	ND	ug/L	10,000

Notes:

ND = Not detected above method reporting limit

Lab qualifiers (i.e. letters next to result) are defined in the lab report

n/a = regulatory limit not available for the analyte

TABLE 2
WATER WELL SAMPLE ISOTOPIC ANALYSIS RESULTS
12735 County Road 34, Permit #15631
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: 7/14/2015

Analyte	Result	Units ^a	Regulatory Limit
δD of water	-107.4	‰ relative to VSMOW	n/a
$\delta^{18}\text{O}$ of water	-14.25	‰ relative to VSMOW	n/a
Tritium content of water	na	‰	n/a
$\delta^{13}\text{C}$ of DIC	-12.0	‰ relative to VPDB	n/a
^{14}C content of DIC	na	‰	n/a
$\delta^{15}\text{N}$ of nitrate	na	‰	n/a
$\delta^{18}\text{O}$ of nitrate	na	‰	n/a
$\delta^{34}\text{S}$ of sulfate	na	‰	n/a
$\delta^{18}\text{O}$ of sulfate	na	‰	n/a

Notes:

Isotopic analysis conducted at Isotech Laboratories Inc.

n/a = regulatory limit not available for the analyte

na = Not analyzed

TABLE 3
WATER WELL SAMPLE ISOTOPIC ANALYSIS RESULTS
12735 County Road 34, Permit #15631
Platteville, Colorado
Sample ID: 7_3N_66W_Henrickson, Sample Date: 7/14/2015

Analyte	Result	Units ^a	Regulatory Limit
Carbon Monoxide	nd	mol %	n/a
Helium	0.0100	mol %	n/a
Hydrogen	nd	mol %	n/a
Argon	0.0479 (0.091 mg/L)	mol %	n/a
Oxygen	0.77	mol %	n/a
Nitrogen	2.95 (3.4 mg/L)	mol %	n/a
Carbon Dioxide	0.19	mol %	n/a
Methane	78.93 (61 mg/L)	mol %	n/a
Ethane	11.16 (18 mg/L)	mol %	n/a
Ethylene	nd	mol %	n/a
Propane	4.55 (9.8 mg/L)	mol %	n/a
Propylene	nd	mol %	n/a
Iso-butane	0.422	mol %	n/a
N-butane	0.770	mol %	n/a
Iso-pentane	0.110	mol %	n/a
N-pentane	0.0711	mol %	n/a
Hexanes +	0.0207	mol %	n/a

Notes:

Isotopic analysis conducted at Isotech Laboratories, Inc.

^a Chemical compositions are normalized to 100% (Mol. % is approximately equal to Vol. %). Additional information provided in attached lab report n/a = regulatory limit not available for the analyte

nd = Not detected above method reporting limit

na = Not analyzed

n/a = regulatory limit not available for the analyte