

TABLE 1
ACCUTEST ANALYTICAL RESULTS
13017 County Road 30, Permit #125634
Platteville, Colorado
Sample ID: Barclay 125634 Pre

Analyte, Units	1/5/2016 Result	3/2/2016 Result	5/10/2016 Result	7/5/2016 Result	8/23/2016 Result	12/13/2016 Result
Alkalinity, Bicarbonate, mg/L	416	431	435	443	434	438
Alkalinity, Carbonate, mg/L	18.4	27.7	19.5	14.8	18.2	20.9
Alkalinity, Total, mg/L	435	458	454	458	452	459
Bacteria, Iron Reducing, CFU/mL	9,000	9,000	500	500	9,000	9,000
Bacteria, Slime Forming, CFU/mL	ND	ND	ND	12,500	ND	ND
Bacteria, Sulfate Reducing, CFU/mL	700	18,000	ND	1,200	1,200	700
Barium, mg/L	0.0387	0.0376	0.0358	0.0347	0.0360	0.0360
Benzene, ug/L	ND	ND	ND	ND	ND	ND
Boron, mg/L	0.182	0.194	0.186	0.190	0.183	0.180
Bromide, mg/L	0.58	0.57	0.58	0.52	0.56	0.60
Calcium, mg/L	2.30	2.16	2.24	2.33	2.26	2.15
Chloride, mg/L	55.9	56.5	57.0	58.5	57.1	57.3
Diesel Range Organics, mg/L	ND	ND	ND	ND	ND	ND
Ethane, mg/L	0.719	0.596	0.630	0.563	0.456	0.436
Ethylbenzene, ug/L	ND	ND	ND	ND	ND	ND
Fluoride, mg/L	1.9	1.8	1.9	1.8	1.9	2.0
Gasoline Range Organics, mg/L	ND	0.0792	0.0662	0.0743	0.0518	ND
Iron, mg/L	ND	ND	0.0100	ND	0.0109	ND
Magnesium, mg/L	0.453	0.454	0.444	0.460	0.462	0.421
Manganese, mg/L	0.0059	0.0060	0.0061	0.0055	0.0053	0.0059
Methane, mg/L	9.20	6.93	8.19	6.51	5.55	5.69
Nitrogen, Nitrate, mg/L	ND	ND	ND	ND	ND	ND
Nitrogen, Nitrite, mg/L	ND	ND	ND	ND	0.047	ND
pH, Standard Units	8.65	8.64	8.53	8.61	8.50	8.53
Phosphorus, Total, mg/L	ND	0.073	0.035	0.011	ND	ND
Propane, mg/L	0.305	0.279	0.292	0.253	0.199	0.195
Potassium, mg/L	ND	1.49	1.15	1.25	1.22	1.08
Selenium, mg/L	ND	0.0043	ND	ND	ND	ND
Sodium, mg/L	221	249	227	241	238	231
Specific Conductivity, µmhos/cm	894	897	950	920	911	930
Strontium, mg/L	0.0684	0.0740	0.0700	0.0731	0.0705	0.0694
Sulfate, mg/L	ND	ND	ND	ND	ND	ND
Toluene, ug/L	ND	ND	ND	ND	ND	ND
Total Dissolved Solids, mg/L	618	610	591	596	600	604
Xylene, Total, ug/L	ND	ND	ND	ND	ND	ND

Notes:

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

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

TABLE 2
ISOTECH SIW RESULTS
13017 County Road 30, Permit #125634
Platteville, Colorado
Sample ID: Barclay 125634 Pre

Analyte, Units	1/5/2016 Result	3/2/2016 Result	5/10/2016 Result	7/5/2016 Result	8/23/2016 Result	12/13/2016 Result
dD of water, ‰ relative to VSMOW	-106.9	-106.9	-107.0	-106.6	-107.2	-106.9
d18O of water, ‰ relative to VSMOW	-14.12	-13.99	-13.96	-14.09	-14.08	-13.91
Tritium content of water, ‰	na	na	na	na	na	na
d13C of DIC, ‰ relative to VPDB	-10.5	-10.4	-10.4	-10.6	-10.5	-10.5
14C content of DIC, ‰	na	na	na	na	na	na
d15N of nitrate, ‰	na	na	na	na	na	na
d18O of nitrate, ‰	na	na	na	na	na	na
d34S of sulfate, ‰	na	na	na	na	na	na
d18O of sulfate, ‰	na	na	na	na	na	na

Notes:
Isotopic analysis conducted at Isotech Laboratories Inc.
na = not analyzed

TABLE 3
ISOTECH NG4 RESULTS
13017 County Road 30, Permit #125634
Platteville, Colorado
Sample ID: Barclay 125634 Pre

Analyte, Units	1/5/2016 Result	3/2/2016 Result	5/10/2016 Result	7/5/2016 Result	8/23/2016 Result	12/13/2016 Result
Carbon Monoxide, mol %	nd	nd	nd	nd	nd	nd
Helium, mol %	na	na	na	na	na	0.0232
Hydrogen, mol %	nd	nd	nd	nd	nd	nd
Argon, mol %	0.637 (0.58 mg/L)	0.636 (0.66 mg/L)	0.667 (0.67 mg/L)	0.656 (0.55 mg/L)	0.659 (0.57 mg/L)	0.827 (1.6 mg/L)
Oxygen, mol %	0.84	1.20	1.76	1.09	2.15	10.18
Nitrogen, mol %	36.19 (20 mg/L)	37.32 (24 mg/L)	37.57 (23 mg/L)	37.52 (18 mg/L)	36.05 (19 mg/L)	61.30 (71 mg/L)
Carbon Dioxide, mol %	0.45	0.44	0.32	0.36	0.42	0.17
Methane, mol %	59.13 (22 mg/L)	57.52 (24 mg/L)	56.98 (23 mg/L)	57.54 (19 mg/L)	57.85 (20 mg/L)	26.21 (21 mg/L)
Ethane, mol %	1.98 (1.5 mg/L)	2.07 (1.7 mg/L)	1.91 (1.6 mg/L)	2.00 (1.4 mg/L)	2.05 (1.4 mg/L)	0.915 (1.5 mg/L)
Ethylene, mol %	nd	nd	nd	nd	nd	nd
Propane, mol %	0.564 (0.57 mg/L)	0.599 (0.70 mg/L)	0.574 (0.66 mg/L)	0.600 (0.57 mg/L)	0.596 (0.58 mg/L)	0.273 (0.61 mg/L)
Propylene, mol %	nd	nd	nd	nd	nd	nd
Iso-butane, mol %	0.0762	0.0788	0.0781	0.0818	0.0790	0.0371
N-butane, mol %	0.100	0.104	0.101	0.108	0.107	0.0490
Iso-pentane, mol %	0.0179	0.0200	0.0216	0.0234	0.0216	0.0100
N-pentane, mol %	0.0086	0.0101	0.0114	0.0128	0.0115	0.0051
Hexanes + , mol %	0.0016	0.0021	0.0034	0.0039	0.0037	0.0014

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.

nd = not detected

na = not analyzed