WATTENBERG DISPOSAL, LLC

WORLD TRADE CENTER

1675 BROADWAY, 28TH FLOOR

DENVER, COLORADO 80202-4628

TELEPHONE (303) 825-4822

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WWW.KPK.COM

RECEIVED

OCT 21 2013

Office of Enforcement, Compliance and Environmental Justice (UFO)

October 11, 2013

Mr. Nathan Wiser
United States EPA Region 8
8OC-EISC
1595 Wynkoop Street
Denver, CO 80202-1129

CO10938-02115

RE: Wattenberg Disposal, LLC
Quarterly Report for Suckla Farms Injection Well #1
Groundwater Monitoring Report

Dear Mr. Wiser,

Enclosed please find the Quarterly Injection Report for the period of July 1, 2013 through September 30, 2013 for the above referenced facility, including water analyses for all three months. Additionally, please find ground water monitoring sampling results.

If you have any questions or need additional information, please do not hesitate contacting me at 303-825-4822 or slaramesa@kpk.com

Sincerely,

Susana Lara-Mesa
Engineering Project Manager

U2 Entered
Date 11/18/13
Initial DB

	GREEN	BLUE	CBI
TAB		✓	

Mountain States ACCUTEST LABORATORIES

08/14/13

Technical Report for

K.P. Kauffmann Company, Inc.

Wattenberg Tank

Accutest Job Number: D48733

Sampling Date: 07/31/13

Report to:

Apex Consulting Services
PO Box 369
Louisville, CO 80027-0369
mhattel@msn.com; slaramesa@kpk.com

ATTN: Mike Hattel

Total number of pages in report: 29

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Scott Heideman
Laboratory Director

Client Service contact: Shea Greiner 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

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Sample Summary

K.P. Kauffmann Company, Inc.

Job No: D48733

Wattenberg Tank

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D48733-1	07/31/13	09:00 MDH	07/31/13	AQ	Water	TANK-1
D48733-1F	07/31/13	09:00 MDH	07/31/13	AQ	Water Filtered	TANK-1

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	K.P. Kauffmann Company, Inc.	**Job No**	D48733
Site:	Wattenberg Tank	**Report Date**	8/14/2013 2:40:34 PM

On 07/31/2013, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 5.4 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D48733 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals By Method SW846 6010C

Matrix AQ **Batch ID:** MP10733

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D48901-6MS, D48901-6MSD, D48901-6SDL were used as the QC samples for the metals analysis.

Wet Chemistry By Method ASTM D287

Matrix ALL **Batch ID:** GN21322

- The data for ASTM D287 meets quality control requirements.

Wet Chemistry By Method EPA 1664A

Matrix AQ **Batch ID:** GP10680

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D48754-1MS were used as the QC samples for the HEM Oil and Grease analysis.

Wet Chemistry By Method EPA 300.0/SW846 9056

Matrix AQ **Batch ID:** GP10561

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D48735-1MS, D48735-1MSD were used as the QC samples for the Chloride, Nitrogen, Nitrate, Nitrogen, Nitrite, Sulfate, Chloride analysis.
- D48733-1 for Nitrogen, Nitrate: Elevated detection limit due to matrix interference.
- D48733-1 for Nitrogen, Nitrite: Elevated detection limit due to matrix interference.
- D48733-1 for Sulfate: Elevated detection limit due to matrix interference.

Wet Chemistry By Method SM 2540C-2011

Matrix AQ **Batch ID:** GN21278

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D48680-1DUP were used as the QC samples for the Solids, Total Dissolved analysis.

Wet Chemistry By Method SM 5310B-2011

Matrix AQ	Batch ID: GP10669

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D49104-1DUP, D49104-1MS, D49104-1MSD were used as the QC samples for the Total Organic Carbon analysis.

Wet Chemistry By Method SM4500HB+-2011/9040C

Matrix AQ	Batch ID: GN21283

- D48733-1 for pH: Analysis performed past the required 15 minutes from collection time/holding time.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Summary of Hits

Job Number: D48733
Account: K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank
Collected: 07/31/13

3

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D48733-1	TANK-1					
Chloride		5480	250		mg/l	EPA 300.0/SW846 9056
HEM Oil and Grease		75.6	4.8		mg/l	EPA 1664A
Solids, Total Dissolved		10300	10		mg/l	SM 2540C-2011
Specific Gravity by Hydrometer		1.0043				ASTM D287
Total Organic Carbon		740	50		mg/l	SM 5310B-2011
pH [a]		6.97			su	SM4500HB+-2011/9040C
D48733-1F	TANK-1					
Calcium		133000	20000		ug/l	SW846 6010C
Magnesium		16300	10000		ug/l	SW846 6010C
Potassium		150000	50000		ug/l	SW846 6010C
Sodium		3180000	20000		ug/l	SW846 6010C

(a) Analysis performed past the required 15 minutes from collection time/holding time.

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-1		
Lab Sample ID:	D48733-1	Date Sampled:	07/31/13
Matrix:	AQ - Water	Date Received:	07/31/13
		Percent Solids:	n/a
Project:	Wattenberg Tank		

4.1

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General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	5480	250	mg/l	500	07/31/13 11:08	SK	EPA 300.0/SW846 9056
HEM Oil and Grease	75.6	4.8	mg/l	1	08/14/13	SWT	EPA 1664A
Nitrogen, Nitrate [a]	< 0.50	0.50	mg/l	50	07/31/13 10:46	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrite [a]	< 0.20	0.20	mg/l	50	07/31/13 10:46	SK	EPA 300.0/SW846 9056
Solids, Total Dissolved	10300	10	mg/l	1	08/01/13	JD	SM 2540C-2011
Specific Gravity by Hydromete	1.0043			1	08/06/13	MM	ASTM D287
Sulfate [a]	< 25	25	mg/l	50	07/31/13 10:46	SK	EPA 300.0/SW846 9056
Total Organic Carbon	740	50	mg/l	50	08/13/13 13:08	SK	SM 5310B-2011
pH [b]	6.97		su	1	08/01/13 13:50	BF	SM4500HB+-2011/9040C

(a) Elevated detection limit due to matrix interference.
(b) Analysis performed past the required 15 minutes from collection time/holding time.

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-1		
Lab Sample ID:	D48733-1F	Date Sampled:	07/31/13
Matrix:	AQ - Water Filtered	Date Received:	07/31/13
		Percent Solids:	n/a
Project:	Wattenberg Tank		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	133000	20000	ug/l	5	08/07/13	08/07/13	JB	SW846 6010C [1]	SW846 3010A [2]
Magnesium	16300	10000	ug/l	5	08/07/13	08/07/13	JB	SW846 6010C [1]	SW846 3010A [2]
Potassium	150000	50000	ug/l	5	08/07/13	08/07/13	JB	SW846 6010C [1]	SW846 3010A [2]
Sodium	3180000	20000	ug/l	5	08/07/13	08/07/13	JB	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3849
(2) Prep QC Batch: MP10733

RL = Reporting Limit

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories

4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX: 303-425-6854

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # D48733

Client / Reporting Information

Company Name: K.P. Kauffman Company, Inc.
Address: 1675 Broadway, Suite 2800
City: Denver State: CO Zip: 80202-4628
Project Contact: Susan Lara-Mesa SLaraMesa@kpk.com
Phone #: 303-825-4822
Samplers's Name: MICHAEL HATTEL (303-665-1400)

Project Information

Project Name: WATTENBERG TANK
Street:
City: Fort Lupton State: CO
Project #:
Fax #:
Client Purchase Order #: 7591

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	OIL & GREASE 1664	ANIONS (NITRATE, NITRITE, SULFATE, CHLORIDE)	pH	CATIONS (Ca, K, Mg, NA)	SPECIFIC GRAVITY	TDS	TOC					LAB USE ONLY
	TANK - 1		7/31/13	0500	MDH	LIQ	6	X			X					X	X	X	X	X	X	X					01

Requested Analysis

Matrix Codes: DW- Drinking Water; GW- Ground Water; WW- Water; SW- Surface Water; SO- Soil; SL-Sludge; OI-Oil; LIQ- Other Liquid; AIR- Air; SOL-Other Solid; WP-Wipe

DR 7/31/13

Turnaround Time (Business days): [X] Std. 10 Business Days; Approved By:/ Date:

Emergency T/A data available VIA Lablink

Data Deliverable Information: [ ] Commercial "A"; [ ] Commercial "B"; [ ] NJ Reduced; [ ] NJ Full; [x] Hard Copy; [ ] FULL CLP; [ ] NYASP Category A; [ ] NYASP Category B; [ ] State Forms; [x] PDF

Comments / Remarks:
NO Hard Copy
PDF copy to Mike Hattel with APEX at mhattel@msn.com
PDF copy to Susana Lara-Mesa w KPK at SLaraMesa@kpk.com

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	7/31/13 1010	1	2		2
Relinquished By: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished By: 5	Date Time:	Received By: 5	Custody Seal # HO	Preserved where applicable ☐	On Ice ☑ Cooler Temp. 5.4

5.1 5

D48733: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D48733 **Client:** K.P. KAUFFMAN COMPANY, INC **Immediate Client Services Action Required:** No

Date / Time Received: 7/31/2013 10:20:00 AM **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: WATTENBERG TANK **Airbill #'s:** FX

Cooler Security	Y	or N		Y	or N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	or N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Infared gun	
3. Cooler media:	Ice (bag)	

Quality Control Preservation	Y	or N	N/A
1. Trip Blank present / cooler:	☐	☐	
2. Trip Blank listed on COC:	☐	☐	
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	or N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	or N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	or N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume rec'd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www/accutest.com

5.1

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D48733: Chain of Custody
Page 2 of 2

Mountain States ACCUTEST LABORATORIES

Metals Analysis

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D48733
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10733
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/07/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	11	41		
Antimony	30	2.1	19		
Arsenic	25	3.8	5.6		
Barium	10	.2	1.4		
Beryllium	10	.9	1.2		
Boron	50	.8	6.6		
Cadmium	10	.2	.36		
Calcium	400	2.4	41	4.6	<400
Chromium	10	.3	.4		
Cobalt	5.0	.5	.57		
Copper	10	.8	1.9		
Iron	70	1.5	9.5		
Lead	50	2.1	21		
Lithium	5.0	.4	2.7		
Magnesium	200	6.8	19	0.10	<200
Manganese	5.0	.5	.46		
Molybdenum	10	.4	.84		
Nickel	30	.5	.87		
Phosphorus	100	15	20		
Potassium	1000	99	270	-98	<1000
Selenium	50	7.1	11		
Silicon	50	4.7	5.2		
Silver	30	.3	.6		
Sodium	400	7.3	170	-4.1	<400
Strontium	5.0	.01	.12		
Thallium	10	1.8	4		
Tin	50	12	16		
Titanium	10	.1	2.1		
Uranium	50	2.9	5.5		
Vanadium	10	.4	.4		
Zinc	30	.4	3.2		

Associated samples MP10733: D48733-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D48733
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10733
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.1
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D48733
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10733
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/07/13

Metal	D48901-6 Original	MS	Spikelot ICPALL2	% Rec	QC Limits
Aluminum					
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Boron					
Cadmium	anr				
Calcium	163000	200000	25000	92.0	75-125
Chromium	anr				
Cobalt	anr				
Copper	anr				
Iron	anr				
Lead	anr				
Lithium					
Magnesium	57000	82000	25000	100.0	75-125
Manganese					
Molybdenum					
Nickel	anr				
Phosphorus					
Potassium	44400	71900	25000	110.0	75-125
Selenium	anr				
Silicon					
Silver	anr				
Sodium	90100	115000	25000	99.6	75-125
Strontium					
Thallium	anr				
Tin	anr				
Titanium					
Uranium					
Vanadium	anr				
Zinc	anr				

Associated samples MP10733: D48733-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D48733
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10733
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.1.2

6

ACCUTEST LABORATORIES
D48733

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D48733
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10733
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/07/13

Metal	D48901-6 Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium	163000	201000	25000	96.0	0.5	20
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	anr					
Lithium						
Magnesium	57000	82400	25000	101.6	0.5	20
Manganese						
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	44400	72200	25000	111.2	0.4	20
Selenium	anr					
Silicon						
Silver	anr					
Sodium	90100	116000	25000	103.6	0.9	20
Strontium						
Thallium	anr					
Tin	anr					
Titanium						
Uranium						
Vanadium	anr					
Zinc	anr					

Associated samples MP10733: D48733-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D48733
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10733
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.1.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D48733
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10733
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/07/13

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	26400	25000	105.6	80-120
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium	25700	25000	102.8	80-120
Manganese				
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	26500	25000	106.0	80-120
Selenium	anr			
Silicon				
Silver	anr			
Sodium	26000	25000	104.0	80-120
Strontium				
Thallium	anr			
Tin	anr			
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP10733: D48733-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D48733
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10733
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.3

6

ACCUTEST LABORATORIES

D48733

SERIAL DILUTION RESULTS SUMMARY

Login Number: D48733
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10733
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/07/13

Metal	D48901-6 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	177000	181000	2.0	0-10
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium	57000	57100	0.0	0-10
Manganese				
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	44400	43900	1.2	0-10
Selenium	anr			
Silicon				
Silver	anr			
Sodium	90100	90900	0.9	0-10
Strontium				
Thallium	anr			
Tin	anr			
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP10733: D48733-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D48733
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10733
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.4

6

Mountain States ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D48733
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP10561/GN21254	0.50	0.0	mg/l	20	20.1	100.5	90-110%
HEM Oil and Grease	GP10680/GN21470	5.0	0.0	mg/l	40	34.7	86.8	78-114%
Nitrogen, Nitrate	GP10561/GN21254	0.010	0.0	mg/l	4.52	4.44	98.3	90-110%
Nitrogen, Nitrite	GP10561/GN21254	0.0040	0.0	mg/l	6.09	6.01	98.7	90-110%
Solids, Total Dissolved	GN21278	10	0.0	mg/l	400	403	100.8	90-110%
Sulfate	GP10561/GN21254	0.50	0.0	mg/l	30	29.8	99.3	90-110%
Total Organic Carbon	GP10669/GN21450	1.0	0.0	mg/l	8.82	8.87	100.6	90-110%
pH	GN21283			su	8.00	8.02	100.3	99.3-100.7%

Associated Samples:
Batch GN21278: D48733-1
Batch GN21283: D48733-1
Batch GP10561: D48733-1
Batch GP10669: D48733-1
Batch GP10680: D48733-1
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D48733
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
HEM Oil and Grease	GP10680/GN21470	mg/l	40	36.1	4.0	20%

Associated Samples:
Batch GP10680: D48733-1
(*) Outside of QC limits

7.2
7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D48733
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN21278	D48680-1	mg/l	10100	10100	0.0	0-20%
Total Organic Carbon	GP10669/GN21450	D49104-1	mg/l	152	151	0.7	0-20%

Associated Samples:
Batch GN21278: D48733-1
Batch GP10669: D48733-1
(*) Outside of QC limits

7.3

7

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D48733
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP10561/GN21254	D48735-1	mg/l	131	100	238	107.0	80-120%
HEM Oil and Grease	GP10680/GN21470	D48754-1	mg/l	0.0	40	32.0	80.0	78-114%
Nitrogen, Nitrate	GP10561/GN21254	D48735-1	mg/l	0.0	5.65	6.5	115.0	80-120%
Nitrogen, Nitrite	GP10561/GN21254	D48735-1	mg/l	0.0	3.05	3.2	105.1	80-120%
Sulfate	GP10561/GN21254	D48735-1	mg/l	187	100	292	105.0	80-120%
Total Organic Carbon	GP10669/GN21450	D49104-1	mg/l	152	125	276	99.2	80-120%

Associated Samples:
Batch GP10561: D48733-1
Batch GP10669: D48733-1
Batch GP10680: D48733-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

7.4

7

OMB No. 2040-0042 Approval Expires 12/31/2011

EPA

United States Environmental Protection Agency
Washington, DC 20460

Injection Well Monitoring Report

Year 2013	Month	Month	Month
	July	August	September
Injection Pressure (PSI)			
1. Minimum	500	500	500
2. Average	462	429	481
3. Maximum	500	500	500
Injection Rate (Gal/Min)			
1. Minimum	55	55	55
2. Average	55	55	55
3. Maximum	55	55	55
Annular Pressure (PSI)			
1. Minimum	130	130	130
2. Average	130	130	130
3. Maximum	130	130	130
Injection Volume (Gal)			
1. Monthly Total	670,278	741,048	794,514
2. Yearly Cumulative	4,365,690	5,106,738	5,901,252
Temperature (F °)			
1. Minimum			
2. Average			
3. Maximum			
pH			
1. Minimum			
2. Average			
3. Maximum			
Other			
Class I-Non-Hazardous	0	0	0
Class I-Non-Haz. Cumulative	50	50	50

Name and Address of Permittee
Wattenberg Disposal, LLC, 8979 WCR 22, Fort Lupton, CO 80621

Permit Number
CO-10938-2115

Name and Official Title *(Please type or print)*
Renae Patterson, Admin. Assistant

Signature
Renae Patterson

Date Signed
10/9/13

EPA Form 7520-8 (Rev. 12-08)

LEASE #	LEASE NAME	DATE 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	LEASE TOTALS
67528	AMEN 1	130		35		40			40				65			37																	470
61864	AMOCO-CHARTER-SCHNEI															36	45			30				17	45						40		54
61883	AMOCO CHART SCHNEIDER A															37								16									52
61902	AMOCO CHART SCHNEIDER B																							17									54
58368	AMOCO-ENERGY-SMITS U									45									25											35			105
61450	ANDERSON 1, 2			45					22				20					40						30						25	40		85
17450	ANDERSON																						160				20						220
192530	BAUERER 41-36																	33									25						58
58425	BELL UNIT, *CHARLES					40												32									25						97
58406	BELL, *CHARLES C																															22	22
59850	BERGER A																															23	23
59850B	BERGER, *JACK & BERG																									80							135
103500	BRIGGS #1		55																						40								40
61186	BURKHARDT SELTZER								35		100					32	33														46	33	279
24571	CAMENISCH 2-32															33	32														47	32	144
24591	CAMENISCH 8-32															32	33														45	33	143
24569	CAMENISCH 41-32															33	32														47	32	144
24704	CAMENISCH 50-32								130									50						60						130		30	400
17451	CARTER 21-33																								15		20				20		55
58463	CHRISTENSEN UNIT, *N																								15		20				20		55
58444	CHRISTENSEN, *NELS																															22	70
09163	COBURN CLEMENTINE 1					30													18													23	40
09593	COBURN CLEMENTINE B1																		17														90
58462	DAMIANA, *JAMES A					40																		50									85
60040	DEEPE C, *CARL R										40									40							45				10		50
07895	DEVORE 1, 2																														10		10
07896	DEVORE 2																														10		10
09272	DEVORE 3, 4																														10		10
09271	DEVORE 4																																70
55561	DOUTHIT 2, 31-29	70							40														9										49
07886	DUTCHER B 1																						8										8
08945	DUTCHER B 2																						9										9
08684	DUTCHER C 1																						9										9
08899	DUTCHER C 2																															45	45
62611	ED KAM 1-21																															30	30
62293	ED KAM 2-23																									80	20				20		120
194160	EIBERGER 32-36																										20				20	75	115
194110	EIBERGER 42-36																														7		93
08391	ELKHORN CO B3			40							40														6						6		11
08694	ELKHORN CO B5																								5						7		13
09488	ELKHORN CO B6																								6						6		12
09489	ELKHORN CO B7																								6						7		13
09490	ELKHORN CO B8																								6						7		13
09491	ELKHORN CO B9																								6								15
59268	ENERGY MINERALS A 1																						15										70
16081	EWING 23-30																70																230
00001	FACILITY 1									130								100												130	45	210	1225
00002	FACILITY 2			310							50		165			65	130		80					40									85
00003	FACILITY 3			40																	45										40		770
00004	FACILITY 4	130										130				130	130									80	130				130		345
00005	FACILITY 5			85								130																			40	30	210
00006	FACILITY 6		60	80						130			90			120							130									130	600
00007	FACILITY 7		105								100										60									130			235
00008	FACILITY 8											75																		80			100
0004WA	FACILITY 4WA			60						80																							275
0004WB	FACILITY 4WB									90																	70						80
69064	FED WILDHORSE 10,15,										130		65				10			8			6								10		160
59269	FIRECRACKER																10			7			7								10		195
62603	GENESIS 3																10			8			6								10		34
07887	GERHARDT GEORGE H 1																10			7			6								10		34
08124	GERHARDT GEORGE H 2																10			8			6								10		33
08946	GERHARDT GEORGE H 3																10			7			6									50	50
13577	GERHARDT GEORGE H 4																												45				45
60135	GERHARDT MARIE B																														45		25
59839	GRANT #'S 1,2,3,4		25								45													35			10						125
61484	GUILDNER																																10
5869	GUTHRIE 1 & 2								50							35								45									95
60192	HALEY TRUSTEE, *JAME																							15									35
60211	HANKS																							15									15
60249	HART UNIT B, MARTIN																							15			15						15
60270	HART UNIT F, MARTIN																										45						165
60230	HART, MARTIN T 1,2,3																			45							10						60
60272	HART UNIT H										50		25																				15
59033	HAUDRICH #1 & 2											50									15												60
62020	HEIN 1-2																				15											30	30
60290	HERMAN UNIT B, *ALFR										45																	30					30
58505	HERMAN UNIT, *ALFRED																														18		98
58139	HILL 1 A																20														25		25
56134	HILL 3-10						60																									20	80
58501	HLADKY-O'GORMAN											30																					40
60310	HORST B, JOHN 1 & 2	30										40																					45
04200	ORTH R1-R2			45																							15						15
2199	HOSMER 4-4												20																				50
60324	HUNZIKER		30																														
60323	JEFFERS A D 1																																
59592	JOHNSON #'S 1 & 2																																

WATTENBERG DAILY EVALUATION SHEET

July 2013

Date	Time	Injecting Fluid Yes	Injecting Fluid No	Pressured Annulus Yes	Pressured Annulus No	Tubing Pressure	Annulus Pressure	Estimated Barrels Injected (prior 24 hrs)	Ambient Air Temperature (est)	Weather Conditions	Remarks/Summary Prior 24 Hrs.
1	6:15A		X	X		Ø	130	Ø			
2	6:15A		X	X		Ø	130	860			
3	6:15A		X	X		Ø	130	780			
4	Closed		X	X		Ø	130	830			
6	6:15A		X	X		Ø	130	Ø			
6	Closed		X	X		Ø	130	960			
7	Closed		X	X		Ø	130	Ø			
8	6:15A		X	X		Ø	130	Ø			
9	6:15A		X	X		Ø	130	230			
10	6:15A		X	X		Ø	130	840			
11	6:15A		X	X		Ø	130	790			
12	6:15A		X	X		Ø	130	500			
13	Closed		X	X		Ø	130	660			
14	Closed		X	X		Ø	130	Ø			
15	6:15A		X	X		Ø	130	Ø			
16	6:15A		X	X		Ø	130	730			
17	6:15A		X	X		Ø	130	810			
18	6:15A		X	X		Ø	130	820			
19	6:15A		X	X		Ø	130	540			
20	6:15A		X	X		Ø	130	210			
21	Closed		X	X		Ø	130	370			
22	6:15A		X	X		Ø	130	Ø			
23	6:15A		X	X		Ø	120	680			
24	7:00A		X	X		Ø	130	217			
25	6:15A		X	X		Ø	130	416			
26	6:15A		X	X		Ø	130	433			
27	6:15A		X	X		Ø	130	878			
28	Closed		X	X		Ø	130	386			
29	7:00A		X	X		Ø	130	Ø			
30	6:15A		X	X		Ø	130	380			
31	All Night	X		X		650	130	1110			

Mountain States ACCUTEST LABORATORIES

09/11/13

Technical Report for

K.P. Kauffmann Company, Inc.

Wattenberg Tank

Accutest Job Number: D49890

Sampling Date: 08/27/13

Report to:

Apex Consulting Services
PO Box 369
Louisville, CO 80027-0369
mhattel@msn.com; slaramesa@kpk.com

ATTN: Mike Hattel

Total number of pages in report: 29

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Scott Heideman
Laboratory Director

Client Service contact: Shea Greiner 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

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Test results relate only to samples analyzed.

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Sample Summary

K.P. Kauffmann Company, Inc.

Job No: D49890

Wattenberg Tank

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D49890-1	08/27/13	12:00 MH	08/27/13	AQ	Water	TANK-I
D49890-1F	08/27/13	12:00 MH	08/27/13	AQ	Water Filtered	TANK-I

2

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	K.P. Kauffmann Company, Inc.	**Job No**	D49890
Site:	Wattenberg Tank	**Report Date**	9/11/2013 3:59:58 PM

On 08/27/2013, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 5.9 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D49890 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals By Method SW846 6010C

Matrix AQ **Batch ID:** MP10954

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D49967-10MS, D49967-10MSD, D49967-10SDL were used as the QC samples for the metals analysis.
- The serial dilution RPD(s) for Potassium are outside control limits for sample MP10954-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Wet Chemistry By Method ASTM D287

Matrix ALL **Batch ID:** GN21769

- The data for ASTM D287 meets quality control requirements.

Wet Chemistry By Method EPA 1664A

Matrix AQ **Batch ID:** GP10890

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D49841-1MS were used as the QC samples for the HEM Oil and Grease analysis.

Wet Chemistry By Method EPA 300.0/SW846 9056

Matrix AQ **Batch ID:** GP10795

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D49904-1MS, D49904-1MSD were used as the QC samples for the Chloride, Nitrogen, Nitrate, Nitrogen, Nitrite, Sulfate, Chloride analysis.
- D49890-1 for Nitrogen, Nitrate: Elevated detection limit due to matrix interference.
- D49890-1 for Nitrogen, Nitrite: Elevated detection limit due to matrix interference.

Wet Chemistry By Method SM 2540C-2011

Matrix AQ **Batch ID:** GN21680

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D49714-3DUP were used as the QC samples for the Solids, Total Dissolved analysis.

Wet Chemistry By Method SM 5310B-2011

Matrix AQ	Batch ID: GP10851

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D49799-13DUP, D49799-13MS, D49799-13MSD were used as the QC samples for the Total Organic Carbon analysis.

Wet Chemistry By Method SM4500HB+-2011/9040C

Matrix AQ	Batch ID: GN21708

- The following samples were run outside of holding time for method SM4500HB+-2011/9040C: D49890-1 Analysis performed past the required 15 minutes from collection time/holding time.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Summary of Hits

Job Number: D49890
Account: K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank
Collected: 08/27/13

3

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D49890-1	TANK-I					
Chloride		5330	250		mg/l	EPA 300.0/SW846 9056
HEM Oil and Grease		260	4.8		mg/l	EPA 1664A
Solids, Total Dissolved		10900	10		mg/l	SM 2540C-2011
Specific Gravity by Hydrometer		1.0043				ASTM D287
Sulfate		54.4	10		mg/l	EPA 300.0/SW846 9056
Total Organic Carbon		1060	55		mg/l	SM 5310B-2011
pH [a]		5.93			su	SM4500HB+-2011/9040C
D49890-1F	TANK-I					
Calcium		214000	20000		ug/l	SW846 6010C
Magnesium		19400	10000		ug/l	SW846 6010C
Potassium		304000	50000		ug/l	SW846 6010C
Sodium		2860000	20000		ug/l	SW846 6010C

(a) Analysis performed past the required 15 minutes from collection time/holding time.

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-I		
Lab Sample ID:	D49890-1	Date Sampled:	08/27/13
Matrix:	AQ - Water	Date Received:	08/27/13
		Percent Solids:	n/a
Project:	Wattenberg Tank		

4.1

4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	5330	250	mg/l	500	08/28/13 16:17	SK	EPA 300.0/SW846 9056
HEM Oil and Grease	260	4.8	mg/l	1	09/11/13	SWT	EPA 1664A
Nitrogen, Nitrate [a]	<0.20	0.20	mg/l	20	08/28/13 14:12	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrite [a]	<0.080	0.080	mg/l	20	08/28/13 14:12	SK	EPA 300.0/SW846 9056
Solids, Total Dissolved	10900	10	mg/l	1	08/28/13	AK	SM 2540C-2011
Specific Gravity by Hydromete	1.0043			1	09/05/13	MM	ASTM D287
Sulfate	54.4	10	mg/l	20	08/28/13 14:12	SK	EPA 300.0/SW846 9056
Total Organic Carbon	1060	55	mg/l	55	09/05/13 18:15	GH	SM 5310B-2011
pH [b]	5.93		su	1	08/29/13 15:35	AK	SM4500HB+-2011/9040C

(a) Elevated detection limit due to matrix interference.
(b) Analysis performed past the required 15 minutes from collection time/holding time.

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-I		
Lab Sample ID:	D49890-1F	Date Sampled:	08/27/13
Matrix:	AQ - Water Filtered	Date Received:	08/27/13
		Percent Solids:	n/a
Project:	Wattenberg Tank		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	214000	20000	ug/l	5	08/30/13	09/03/13	JB	SW846 6010C [1]	SW846 3010A [2]
Magnesium	19400	10000	ug/l	5	08/30/13	09/03/13	JB	SW846 6010C [1]	SW846 3010A [2]
Potassium	304000	50000	ug/l	5	08/30/13	09/03/13	JB	SW846 6010C [1]	SW846 3010A [2]
Sodium	2860000	20000	ug/l	5	08/30/13	09/03/13	JB	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3934
(2) Prep QC Batch: MP10954

RL = Reporting Limit

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories

4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX 303-425-6854

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: D49890

Client / Reporting Information

Company Name: K.P. Kauffman Company, Inc.
Address: 1675 Broadway, Suite 2800
City: Denver State: CO Zip: 80202-4628
Project Contact: Susan Lara-Mesa SLaraMesa@kpk.com
Phone #: 303-825-4822
Samplers's Name: MICHAEL HATTEL (303-665-1400)

Project Information

Project Name: WATTENBERG TANK
Street:
City: Fort Lupton State: CO
Project #:
Fax #:
Client Purchase Order #: 7591

Requested Analysis

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	MeOH	DI/H2O	NaOH	NaHSO4	MEOH	ENCORE	OIL & GREASE 1664	ANIONS (NITRATE, NITRITE, SULFATE, CHLORIDE)	pH	CATIONS (Ca, K, Mg, NA)	SPECIFIC GRAVITY	TDS	TOC					LAB USE ONLY
	TANK - I		8/27/13	1200	MDH	LIQ	6	X			X				X	X	X	X	X	X	X					01

Matrix Codes: DW- Drinking Water; GW- Ground Water; WW- Water; SW- Surface Water; SO- Soil; SL-Sludge; OI-Oil; LIQ- Other Liquid; AIR- Air; SOL-Other Solid; WP-Wipe

Turnaround Time (Business days)
- [X] Std. 10 Business Days
- Approved By/ Date:

Emergency T/A data available VIA Lablink

Data Deliverable Information
- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] NJ Reduced
- [ ] NJ Full
- [x] Hard Copy
- [ ] FULL CLP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [x] PDF

Comments / Remarks
- NO Hard Copy
- PDF copy to Mike Hattel with APEX at mhattel@msn.com
- PDF copy to Susana Lara-Mesa w KPK at SLaraMesa@kpk.com

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	[signature]	8/27/13 1300	1 Jacob Dr Aun 8/27/13 1320	2		2
3	Relinquished By:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished By:	Date Time:	Received By: 5	Custody Seal # +ID	Preserved where applicable	On Ice Cooler Temp. 5.7

5.1 5

D49890: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D49890 **Client:** KAUFFMAN **Immediate Client Services Action Required:** No

Date / Time Received: 8/27/2013 1:20:00 PM **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: WATTENBURG **Airbill #'s:** HD

Cooler Security	Y	or N		Y	or N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	or N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Infared gun	
3. Cooler media:	Ice (bag)	

Quality Control Preservation	Y	or N	N/A
1. Trip Blank present / cooler:	☐	☐	
2. Trip Blank listed on COC:	☐	☐	
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	or N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	or N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	or N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume rec'd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
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4036 Youngfield Street
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D49890: Chain of Custody
Page 2 of 2

Mountain States ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D49890
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10954
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/30/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	8.6	41		
Antimony	30	2.1	19		
Arsenic	25	3.8	5.6		
Barium	10	.2	1.4		
Beryllium	10	.8	1.2		
Boron	50	.8	6.6		
Cadmium	10	.2	.36		
Calcium	400	2.2	41	24.0	<400
Chromium	10	.3	.4		
Cobalt	5.0	.4	.57		
Copper	10	.8	1.9		
Iron	70	1.5	9.5		
Lead	50	2.1	21		
Lithium	5.0	.4	2.7		
Magnesium	200	6.8	19	-7.5	<200
Manganese	5.0	.01	.46		
Molybdenum	10	.4	.84		
Nickel	30	.5	.87		
Phosphorus	100	15	20		
Potassium	1000	99	270	-4.3	<1000
Selenium	50	7.1	11		
Silicon	50	4.7	5.2		
Silver	30	.3	.6		
Sodium	400	4.9	170	38.0	<400
Strontium	5.0	.01	.12		
Thallium	10	1.8	4		
Tin	50	12	16		
Titanium	10	.1	2.1		
Uranium	50	2.9	5.5		
Vanadium	10	.4	.4		
Zinc	30	.4	3.2		

Associated samples MP10954: D49890-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D49890
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10954
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.1

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MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D49890
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10954
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/30/13

Metal	D49967-10 Original	MS	Spikelot ICPALL2	% Rec	QC Limits
Aluminum					
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Boron					
Cadmium	anr				
Calcium	162000	188000	25000	104.0	75-125
Chromium	anr				
Cobalt	anr				
Copper	anr				
Iron	anr				
Lead	anr				
Lithium					
Magnesium	44500	71900	25000	109.6	75-125
Manganese	anr				
Molybdenum					
Nickel	anr				
Phosphorus					
Potassium	1560	31500	25000	119.1	75-125
Selenium	anr				
Silicon					
Silver	anr				
Sodium	30000	60000	25000	115.6	75-125
Strontium					
Thallium					
Tin	anr				
Titanium					
Uranium					
Vanadium					
Zinc	anr				

Associated samples MP10954: D49890-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D49890
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10954
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D49890
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10954
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/30/13

Metal	D49967-10 Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium	162000	186000	25000	96.0	1.1	20
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	anr					
Lithium						
Magnesium	44500	71400	25000	107.6	0.7	20
Manganese	anr					
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	1560	31800	25000	120.3	0.9	20
Selenium	anr					
Silicon						
Silver	anr					
Sodium	30000	60600	25000	118.0	1.0	20
Strontium						
Thallium						
Tin	anr					
Titanium						
Uranium						
Vanadium						
Zinc	anr					

Associated samples MP10954: D49890-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D49890
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10954
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D49890
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10954
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/30/13

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	25300	25000	101.2	80-120
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium	24800	25000	99.2	80-120
Manganese	anr			
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	26200	25000	104.8	80-120
Selenium	anr			
Silicon				
Silver	anr			
Sodium	25800	25000	103.2	80-120
Strontium				
Thallium				
Tin	anr			
Titanium				
Uranium				
Vanadium				
Zinc	anr			

Associated samples MP10954: D49890-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D49890
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10954
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/30/13

Metal	D49967-10 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	162000	162000	0.3	0-10
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium	44500	44800	0.6	0-10
Manganese	anr			
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	1560	2060	19.1 (a)	0-10
Selenium	anr			
Silicon				
Silver	anr			
Sodium	30000	31000	0.4	0-10
Strontium				
Thallium				
Tin	anr			
Titanium				
Uranium				
Vanadium				
Zinc	anr			

Associated samples MP10954: D49890-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D49890
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP10954
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

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Mountain States ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D49890
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP10795/GN21679	0.050	0.0	mg/l	20	19.9	99.5	90-110%
Chloride	GP10795/GN21679	0.50	0.0	mg/l	20	19.8	99.0	90-110%
Fluoride	GP10795/GN21679	0.10	0.0	mg/l	10	9.23	92.3	90-110%
HEM Oil and Grease	GP10890/GN21853	5.0	0.0	mg/l	40	36.6	91.5	78-114%
Nitrogen, Nitrate	GP10795/GN21679	0.010	0.0	mg/l	4.52	4.44	98.3	90-110%
Nitrogen, Nitrite	GP10795/GN21679	0.0040	0.0	mg/l	6.09	5.90	96.9	90-110%
Solids, Total Dissolved	GN21680	10	0.0	mg/l	400	399	99.8	90-110%
Sulfate	GP10795/GN21679	0.50	0.0	mg/l	30	29.6	98.7	90-110%
Total Organic Carbon	GP10851/GN21779	1.0	0.0	mg/l	8.82	8.85	100.3	90-110%
pH	GN21708			su	8.00	8.00	100.0	99.3-100.7%

Associated Samples:
Batch GN21680: D49890-1
Batch GN21708: D49890-1
Batch GP10795: D49890-1
Batch GP10851: D49890-1
Batch GP10890: D49890-1
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D49890
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
HEM Oil and Grease	GP10890/GN21853	mg/l	40	35.6	2.8	20%

Associated Samples:
Batch GP10890: D49890-1
(*) Outside of QC limits

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DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D49890
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN21680	D49714-3	mg/l	1990	2030	2.0	0-20%
Total Organic Carbon	GP10851/GN21779	D49799-13	mg/l	2.2	2.1	4.7	0-20%

Associated Samples:
Batch GN21680: D49890-1
Batch GP10851: D49890-1
(*) Outside of QC limits

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MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D49890
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP10795/GN21679	D49904-1	mg/l	0.0	5	5.3	99.8	80-120%
Bromide	GP10795/GN21679	D49904-1	mg/l	0.31	5	5.3	99.8	80-120%
Chloride	GP10795/GN21679	D49904-1	mg/l	104	200	300	101.3	80-120%
Chloride	GP10795/GN21679	D49904-1	mg/l	97.5	200	300	101.3	80-120%
Fluoride	GP10795/GN21679	D49904-1	mg/l	1.6	5	6.5	98.0	80-120%
Fluoride	GP10795/GN21679	D49904-1	mg/l	3.1	5	6.5	98.0	80-120%
HEM Oil and Grease	GP10890/GN21853	D49841-1	mg/l	7.9	40	39.3	78.5	78-114%
Nitrogen, Nitrate	GP10795/GN21679	D49904-1	mg/l	2.6	11.3	13.9	100.0	80-120%
Nitrogen, Nitrate	GP10795/GN21679	D49904-1	mg/l	2.6	11.3	13.9	100.0	80-120%
Nitrogen, Nitrite	GP10795/GN21679	D49904-1	mg/l	0.0	0.609	0.68	111.7	80-120%
Nitrogen, Nitrite	GP10795/GN21679	D49904-1	mg/l	0.0	0.609	0.68	111.7	80-120%
Sulfate	GP10795/GN21679	D49904-1	mg/l	205	200	402	98.8	80-120%
Sulfate	GP10795/GN21679	D49904-1	mg/l	155	200	402	98.8	80-120%
Total Organic Carbon	GP10851/GN21779	D49799-13	mg/l	2.2	10	12.5	103.0	80-120%

Associated Samples:
Batch GP10795: D49890-1
Batch GP10851: D49890-1
Batch GP10890: D49890-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D49890
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP10795/GN21679	D49904-1	mg/l	0.0	5	5.2	1.9	20%
Bromide	GP10795/GN21679	D49904-1	mg/l	0.31	5	5.2	1.9	20%
Chloride	GP10795/GN21679	D49904-1	mg/l	104	200	299	0.3	20%
Chloride	GP10795/GN21679	D49904-1	mg/l	97.5	200	299	0.3	20%
Fluoride	GP10795/GN21679	D49904-1	mg/l	1.6	5	6.4	1.6	20%
Fluoride	GP10795/GN21679	D49904-1	mg/l	3.1	5	6.4	1.6	20%
Nitrogen, Nitrate	GP10795/GN21679	D49904-1	mg/l	2.6	11.3	13.9	0.0	20%
Nitrogen, Nitrate	GP10795/GN21679	D49904-1	mg/l	2.6	11.3	13.9	0.0	20%
Nitrogen, Nitrite	GP10795/GN21679	D49904-1	mg/l	0.0	0.609	0.66	3.0	20%
Nitrogen, Nitrite	GP10795/GN21679	D49904-1	mg/l	0.0	0.609	0.66	3.0	20%
Sulfate	GP10795/GN21679	D49904-1	mg/l	205	200	402	0.0	20%
Sulfate	GP10795/GN21679	D49904-1	mg/l	155	200	402	0.0	20%
Total Organic Carbon	GP10851/GN21779	D49799-13	mg/l	2.2	10	12.2	2.4	20%

Associated Samples:
Batch GP10795: D49890-1
Batch GP10851: D49890-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Mountain States ACCUTEST LABORATORIES

09/05/13

Technical Report for

K.P. Kauffmann Company, Inc.

Wattenberg GW

Accutest Job Number: D49891

Sampling Date: 08/27/13

Report to:

Apex Consulting Services
PO Box 369
Louisville, CO 80027-0369
mhattel@msn.com; slaramesa@kpk.com

ATTN: Mike Hattel

Total number of pages in report: 22

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Scott Heideman
Laboratory Director

Client Service contact: Shea Greiner 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

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Test results relate only to samples analyzed.

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Accutest Laboratories

Sample Summary

K.P. Kauffmann Company, Inc.

Job No: D49891

Wattenberg GW

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D49891-1	08/27/13	10:00 MH	08/27/13	AQ	Ground Water	OW-1

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: K.P. Kauffmann Company, Inc. **Job No** D49891

Site: Wattenberg GW **Report Date** 9/5/2013 9:26:21 AM

On 08/27/2013, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 5.9 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D49891 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Extractables by GCMS By Method SW846 8270C

Matrix AQ **Batch ID:** OP8462

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D48562-12MS, D48562-12MSD were used as the QC samples indicated.
- The matrix spike (MS) recovery(s) of 4-Nitroaniline are outside control limits. Outside control limits due to possible matrix interference.
- The matrix spike duplicate (MSD) recovery(s) of 2-Nitroaniline, 4-Nitroaniline are outside control limits. Probable cause due to matrix interference.
- The RPD(s) for the MS and MSD recoveries of 3,3'-Dichlorobenzidine, Benzo(b)fluoranthene are outside control limits for sample OP8462-MSD. Variability of recovery may be due to sample matrix/homogeneity.
- Sample(s) D49891-1 have surrogates outside control limits. Probable cause due to matrix interference.
- D49891-1: Confirmation run.
- D49891-1 for 2,4,6-Tribromophenol: Outside control limits due to possible matrix interference. Confirmed by reanalysis.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Summary of Hits

Job Number: D49891
Account: K.P. Kauffmann Company, Inc.
Project: Wattenberg GW
Collected: 08/27/13

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Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D49891-1	**OW-1**					
bis(2-Ethylhexyl)phthalate		1.9 J	4.8	1.0	ug/l	SW846 8270C

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

4.1

4

Client Sample ID:	OW-1		
Lab Sample ID:	D49891-1	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/27/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	Wattenberg GW		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G115212.D	1	08/29/13	DC	08/28/13	OP8462	E1G1099
Run #2 [a]	1G115235.D	1	08/30/13	DC	08/28/13	OP8462	E1G1101

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2	1050 ml	1.0 ml

ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	9.5	9.5	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	0.60	ug/l	
95-57-8	2-Chlorophenol	ND	4.8	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.8	0.58	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	0.50	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	4.8	0.48	ug/l	
51-28-5	2,4-Dinitrophenol	ND	4.8	3.8	ug/l	
95-48-7	2-Methylphenol	ND	4.8	0.48	ug/l	
106-44-5	4-Methylphenol	ND	4.8	0.48	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.48	ug/l	
100-02-7	4-Nitrophenol	ND	4.8	0.48	ug/l	
87-86-5	Pentachlorophenol	ND	4.8	0.48	ug/l	
108-95-2	Phenol	ND	4.8	0.48	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	0.51	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.50	ug/l	
83-32-9	Acenaphthene	ND	4.8	0.49	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.48	ug/l	
120-12-7	Anthracene	ND	4.8	0.48	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.48	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.48	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.48	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.48	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.48	ug/l	
100-51-6	Benzyl Alcohol	ND	4.8	0.61	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	4.8	0.48	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.8	0.48	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.62	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	0.48	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	0.48	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	0.53	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	0.48	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.8	0.48	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OW-1		
Lab Sample ID:	D49891-1	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/27/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	Wattenberg GW		

4.1

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ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
218-01-9	Chrysene	ND	4.8	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.48	ug/l	
132-64-9	Dibenzofuran	ND	4.8	0.48	ug/l	
84-74-2	Di-n-butyl phthalate	ND	4.8	0.66	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.8	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.8	0.58	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	4.8	0.57	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	4.8	0.48	ug/l	
84-66-2	Diethyl phthalate	ND	4.8	0.48	ug/l	
131-11-3	Dimethyl phthalate	ND	4.8	0.48	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.8	0.48	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.8	0.53	ug/l	
117-84-0	Di-n-octyl phthalate	ND	4.8	0.48	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	1.9	4.8	1.0	ug/l	J
206-44-0	Fluoranthene	ND	4.8	0.48	ug/l	
86-73-7	Fluorene	ND	4.8	0.48	ug/l	
118-74-1	Hexachlorobenzene	ND	4.8	0.48	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.8	0.48	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	4.8	3.8	ug/l	
67-72-1	Hexachloroethane	ND	4.8	0.54	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.54	ug/l	
78-59-1	Isophorone	ND	4.8	0.48	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.48	ug/l	
91-20-3	Naphthalene	ND	4.8	0.48	ug/l	
88-74-4	2-Nitroaniline	ND	4.8	0.55	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.88	ug/l	
100-01-6	4-Nitroaniline	ND	4.8	0.50	ug/l	
98-95-3	Nitrobenzene	ND	4.8	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.48	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.8	0.70	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.48	ug/l	
129-00-0	Pyrene	ND	4.8	0.48	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	13%	13%	10-130%
4165-62-2	Phenol-d5	23%	23%	10-130%
118-79-6	2,4,6-Tribromophenol	15% [b]	15%	16-130%
4165-60-0	Nitrobenzene-d5	66%	67%	14-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OW-1		
Lab Sample ID:	D49891-1	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/27/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	Wattenberg GW		

ABN HSL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	68%	68%	16-130%
1718-51-0	Terphenyl-d14	79%	80%	10-145%

(a) Confirmation run.
(b) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories

4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX 303-425-6854

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # D49891

Client / Reporting Information

Company Name: K.P. Kauffman Company, Inc.
Address: 1675 Broadway, Suite 2800
City: Denver State: CO Zip: 80202-4628
Project Contact: Susana Lara-Mesa SLaraMesa@kpk.com
Phone #: 303-665-1400
Samplers's Name: MICHAEL HATTEL (303-665-1400)

Project Information

Project Name: WATTENBERG GROUNDWATER
Street:
City: Fort Lupton State: CO
Project #:
Fax #:
Client Purchase Order #: 7591

Requested Analysis

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	8270 - FULL LIST	LAB USE ONLY
	OW-1		8/27/13	1100	MDH	GW	1									X	01

Matrix Codes: DW- Drinking Water; GW- Ground Water; WW- Water; SW- Surface Water; SO- Soil; SL-Sludge; Ol-Oil; LIQ- Other Liquid; AIR- Air; SOL-Other Solid; WP-Wipe

Turnaround Time (Business days): [X] Std. 10 Business Days; Approved By:/ Date:

Data Deliverable Information: [ ] Commercial "A"; [ ] Commercial "B"; [ ] NJ Reduced; [ ] NJ Full; [X] Hard Copy; [ ] FULL CLP; [ ] NYASP Category A; [ ] NYASP Category B; [ ] State Forms; [X] PDF

Comments / Remarks: PDF copy to Susana Lara-Mesa with KPK at SLaraMesa@kpk.com; PDF copy also to Mike Hattel with APEX at mhattel@msn.com; Hard copy ONLY to Mike Hattel with APEX, P.O. Box 369, Louisville, CO 80027-0369

Emergency T/A data available VIA Lablink

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	8/27/13 1320	2	2		2
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☐ Cooler Temp.

+ID 5.7

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D49891: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D49891 **Client:** KAUFFMAN **Immediate Client Services Action Required:** No

Date / Time Received: 8/27/2013 1:20:00 PM **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: WATTENBURG **Airbill #'s:** HD

Cooler Security	Y	or N		Y	or N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	or N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Infared gun	
3. Cooler media:	Ice (bag)	

Quality Control Preservation	Y	or N	N/A
1. Trip Blank present / cooler:	☐	☐	
2. Trip Blank listed on COC:	☐	☐	
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	or N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	or N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	or N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume rec'd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:(303) 425-6021
4036 Youngfield Street
F: (303) 425-6854
Wheat Ridge, CO
www/accutest.com

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D49891: Chain of Custody
Page 2 of 2

Mountain States ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D49891
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8462-MB	1G115204.D	1	08/29/13	DC	08/28/13	OP8462	E1G1099

The QC reported here applies to the following samples: **Method:** SW846 8270C

D49891-1

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	10	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.63	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.56	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	0.61	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	0.53	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	0.50	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	4.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.50	ug/l	
106-44-5	4-Methylphenol	ND	5.0	0.50	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	5.0	0.50	ug/l	
87-86-5	Pentachlorophenol	ND	5.0	0.50	ug/l	
108-95-2	Phenol	ND	5.0	0.50	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	0.54	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.52	ug/l	
83-32-9	Acenaphthene	ND	5.0	0.51	ug/l	
208-96-8	Acenaphthylene	ND	5.0	0.50	ug/l	
120-12-7	Anthracene	ND	5.0	0.50	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.50	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.50	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	0.50	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.50	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.50	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.50	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.50	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.65	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.50	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.50	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.56	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.50	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.50	ug/l	
218-01-9	Chrysene	ND	5.0	0.50	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.50	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.50	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.69	ug/l	

Method Blank Summary

Job Number: D49891
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8462-MB	1G115204.D	1	08/29/13	DC	08/28/13	OP8462	E1G1099

The QC reported here applies to the following samples: **Method:** SW846 8270C

D49891-1

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	5.0	0.56	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	0.61	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	0.60	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.50	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.50	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.56	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.50	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.1	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.50	ug/l	
86-73-7	Fluorene	ND	5.0	0.50	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.50	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.50	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	4.0	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.57	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	0.57	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.50	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.58	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.92	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.52	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.73	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.50	ug/l	
129-00-0	Pyrene	ND	5.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	49%	10-130%
4165-62-2	Phenol-d5	32%	10-130%
118-79-6	2,4,6-Tribromophenol	83%	16-130%

Method Blank Summary

Job Number: D49891
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8462-MB	1G115204.D	1	08/29/13	DC	08/28/13	OP8462	E1G1099

The QC reported here applies to the following samples: **Method:** SW846 8270C

D49891-1

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	71%	14-130%
321-60-8	2-Fluorobiphenyl	68%	16-130%
1718-51-0	Terphenyl-d14	94%	10-145%

6.1.1

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Blank Spike Summary

Job Number: D49891
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8462-BS	1G115205.D	1	08/29/13	DC	08/28/13	OP8462	E1G1099

The QC reported here applies to the following samples: **Method:** SW846 8270C

D49891-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	8.0	16	10-130
59-50-7	4-Chloro-3-methyl phenol	50	48.0	96	55-130
95-57-8	2-Chlorophenol	50	41.7	83	35-130
120-83-2	2,4-Dichlorophenol	50	44.6	89	45-130
105-67-9	2,4-Dimethylphenol	50	43.8	88	33-130
534-52-1	4,6-Dinitro-o-cresol	50	42.2	84	43-130
51-28-5	2,4-Dinitrophenol	50	41.8	84	19-130
95-48-7	2-Methylphenol	50	39.2	78	29-130
106-44-5	4-Methylphenol	50	36.8	74	22-130
88-75-5	2-Nitrophenol	50	44.6	89	37-130
100-02-7	4-Nitrophenol	50	18.2	36	11-130
87-86-5	Pentachlorophenol	50	36.3	73	54-130
108-95-2	Phenol	50	18.1	36	10-130
95-95-4	2,4,5-Trichlorophenol	50	45.7	91	54-130
88-06-2	2,4,6-Trichlorophenol	50	45.3	91	54-130
83-32-9	Acenaphthene	50	39.4	79	53-130
208-96-8	Acenaphthylene	50	42.5	85	55-130
120-12-7	Anthracene	50	46.9	94	70-130
56-55-3	Benzo(a)anthracene	50	47.8	96	69-130
205-99-2	Benzo(b)fluoranthene	50	46.1	92	52-146
207-08-9	Benzo(k)fluoranthene	50	50.7	101	41-158
191-24-2	Benzo(g,h,i)perylene	50	47.7	95	53-140
50-32-8	Benzo(a)pyrene	50	48.4	97	55-140
100-51-6	Benzyl Alcohol	50	40.1	80	21-130
101-55-3	4-Bromophenyl phenyl ether	50	45.9	92	69-130
85-68-7	Butyl benzyl phthalate	50	53.6	107	57-130
106-47-8	4-Chloroaniline	50	43.2	86	37-130
111-91-1	bis(2-Chloroethoxy)methane	50	44.4	89	45-130
111-44-4	bis(2-Chloroethyl)ether	50	41.0	82	37-130
108-60-1	bis(2-Chloroisopropyl)ether	50	40.3	81	36-130
91-58-7	2-Chloronaphthalene	50	36.3	73	41-130
7005-72-3	4-Chlorophenyl phenyl ether	50	42.7	85	56-130
218-01-9	Chrysene	50	47.4	95	70-130
53-70-3	Dibenzo(a,h)anthracene	50	49.0	98	51-143
132-64-9	Dibenzofuran	50	42.3	85	59-130
84-74-2	Di-n-butyl phthalate	50	51.0	102	62-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: D49891
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8462-BS	1G115205.D	1	08/29/13	DC	08/28/13	OP8462	E1G1099

The QC reported here applies to the following samples: **Method:** SW846 8270C

D49891-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-50-1	1,2-Dichlorobenzene	50	25.7	51	22-130
541-73-1	1,3-Dichlorobenzene	50	21.9	44	16-130
106-46-7	1,4-Dichlorobenzene	50	23.0	46	18-130
91-94-1	3,3'-Dichlorobenzidine	50	52.7	105	10-200
84-66-2	Diethyl phthalate	50	48.6	97	10-151
131-11-3	Dimethyl phthalate	50	47.2	94	10-155
121-14-2	2,4-Dinitrotoluene	50	47.5	95	70-130
606-20-2	2,6-Dinitrotoluene	50	47.0	94	70-130
117-84-0	Di-n-octyl phthalate	50	51.6	103	46-146
117-81-7	bis(2-Ethylhexyl)phthalate	50	52.6	105	67-130
206-44-0	Fluoranthene	50	46.1	92	70-130
86-73-7	Fluorene	50	43.3	87	58-130
118-74-1	Hexachlorobenzene	50	45.7	91	69-130
87-68-3	Hexachlorobutadiene	50	17.5	35	10-130
77-47-4	Hexachlorocyclopentadiene	50	20.7	41	10-130
67-72-1	Hexachloroethane	50	17.8	36	10-130
193-39-5	Indeno(1,2,3-cd)pyrene	50	48.7	97	49-142
78-59-1	Isophorone	50	46.2	92	52-130
91-57-6	2-Methylnaphthalene	50	33.1	66	38-130
91-20-3	Naphthalene	50	35.0	70	39-130
88-74-4	2-Nitroaniline	50	48.5	97	63-130
99-09-2	3-Nitroaniline	50	48.5	97	22-156
100-01-6	4-Nitroaniline	50	48.5	97	65-130
98-95-3	Nitrobenzene	50	43.1	86	42-130
86-30-6	N-Nitrosodiphenylamine	50	47.4	95	54-134
621-64-7	N-Nitroso-di-n-propylamine	50	45.3	91	44-130
85-01-8	Phenanthrene	50	45.8	92	70-130
129-00-0	Pyrene	50	51.3	103	70-130
120-82-1	1,2,4-Trichlorobenzene	50	26.2	52	22-130

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	55%	10-130%
4165-62-2	Phenol-d5	37%	10-130%
118-79-6	2,4,6-Tribromophenol	92%	16-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: D49891
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8462-BS	1G115205.D	1	08/29/13	DC	08/28/13	OP8462	E1G1099

The QC reported here applies to the following samples: **Method:** SW846 8270C

D49891-1

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	84%	14-130%
321-60-8	2-Fluorobiphenyl	85%	16-130%
1718-51-0	Terphenyl-d14	102%	10-145%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D49891
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8462-MS	1G115227.D	1	08/30/13	DC	08/28/13	OP8462	E1G1101
OP8462-MSD	1G115228.D	1	08/30/13	DC	08/28/13	OP8462	E1G1101
D48562-12	1G115226.D	1	08/30/13	DC	08/28/13	OP8462	E1G1101

The QC reported here applies to the following samples: **Method:** SW846 8270C

D49891-1

CAS No.	Compound	D48562-12 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		50	12.9	26	10.3	21	22	10-130/30
59-50-7	4-Chloro-3-methyl phenol	ND		50	51.9	104	42.4	85	20	47-130/30
95-57-8	2-Chlorophenol	ND		50	47.7	95	38.2	76	22	21-130/30
120-83-2	2,4-Dichlorophenol	ND		50	50.7	101	40.5	81	22	25-130/30
105-67-9	2,4-Dimethylphenol	ND		50	43.5	87	37.4	75	15	21-130/30
534-52-1	4,6-Dinitro-o-cresol	ND		50	41.6	83	34.6	69	18	10-130/30
51-28-5	2,4-Dinitrophenol	ND		50	40.2	80	35.1	70	14	10-130/30
95-48-7	2-Methylphenol	ND		50	43.7	87	37.2	74	16	22-130/30
106-44-5	4-Methylphenol	ND		50	41.2	82	34.6	69	17	17-130/30
88-75-5	2-Nitrophenol	ND		50	51.1	102	40.2	80	24	22-130/30
100-02-7	4-Nitrophenol	ND		50	17.8	36	14.9	30	18	10-130/30
87-86-5	Pentachlorophenol	ND		50	39.5	79	32.8	66	19	13-130/30
108-95-2	Phenol	ND		50	20.5	41	16.6	33	21	10-130/30
95-95-4	2,4,5-Trichlorophenol	ND		50	49.7	99	39.7	79	22	24-130/30
88-06-2	2,4,6-Trichlorophenol	ND		50	47.8	96	38.3	77	22	17-130/30
83-32-9	Acenaphthene	ND		50	44.2	88	35.6	71	22	38-130/30
208-96-8	Acenaphthylene	ND		50	46.3	93	37.9	76	20	39-130/30
120-12-7	Anthracene	ND		50	50.3	101	40.7	81	21	65-130/30
56-55-3	Benzo(a)anthracene	ND		50	51.5	103	41.5	83	22	62-130/30
205-99-2	Benzo(b)fluoranthene	ND		50	54.0	108	39.4	79	31* [a]	51-146/30
207-08-9	Benzo(k)fluoranthene	ND		50	50.8	102	44.3	89	14	41-158/30
191-24-2	Benzo(g,h,i)perylene	ND		50	51.9	104	40.5	81	25	51-140/30
50-32-8	Benzo(a)pyrene	ND		50	51.9	104	41.2	82	23	52-140/30
100-51-6	Benzyl Alcohol	ND		50	44.2	88	38.2	76	15	16-130/30
101-55-3	4-Bromophenyl phenyl ether	ND		50	50.0	100	41.0	82	20	56-130/30
85-68-7	Butyl benzyl phthalate	ND		50	58.2	116	47.4	95	20	48-130/30
106-47-8	4-Chloroaniline	ND		50	39.2	78	30.9	62	24	22-130/30
111-91-1	bis(2-Chloroethoxy)methane	ND		50	49.7	99	41.1	82	19	32-130/30
111-44-4	bis(2-Chloroethyl)ether	ND		50	47.7	95	39.0	78	20	27-130/30
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	47.2	94	38.6	77	20	23-130/30
91-58-7	2-Chloronaphthalene	ND		50	41.0	82	33.0	66	22	27-130/30
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	46.5	93	37.6	75	21	44-130/30
218-01-9	Chrysene	ND		50	50.7	101	41.0	82	21	69-130/30
53-70-3	Dibenzo(a,h)anthracene	ND		50	53.6	107	42.2	84	24	49-139/30
132-64-9	Dibenzofuran	ND		50	46.6	93	37.6	75	21	44-130/30
84-74-2	Di-n-butyl phthalate	ND		50	54.7	109	45.9	92	17	51-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D49891
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8462-MS	1G115227.D	1	08/30/13	DC	08/28/13	OP8462	E1G1101
OP8462-MSD	1G115228.D	1	08/30/13	DC	08/28/13	OP8462	E1G1101
D48562-12	1G115226.D	1	08/30/13	DC	08/28/13	OP8462	E1G1101

The QC reported here applies to the following samples: **Method:** SW846 8270C

D49891-1

CAS No.	Compound	D48562-12 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-50-1	1,2-Dichlorobenzene	ND		50	30.8	62	23.1	46	29	16-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	26.4	53	20.0	40	28	11-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	27.5	55	20.7	41	28	13-130/30
91-94-1	3,3'-Dichlorobenzidine	ND		50	17.8	36	12.3	25	37* [a]	10-200/30
84-66-2	Diethyl phthalate	ND		50	51.9	104	43.4	87	18	10-151/30
131-11-3	Dimethyl phthalate	ND		50	50.9	102	42.7	85	18	10-155/30
121-14-2	2,4-Dinitrotoluene	ND		50	50.8	102	42.1	84	19	61-130/30
606-20-2	2,6-Dinitrotoluene	ND		50	49.6	99	41.4	83	18	62-130/30
117-84-0	Di-n-octyl phthalate	ND		50	55.9	112	45.5	91	21	44-146/30
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	57.1	114	47.0	94	19	57-130/30
206-44-0	Fluoranthene	ND		50	49.6	99	41.1	82	19	70-130/30
86-73-7	Fluorene	ND		50	46.8	94	38.0	76	21	48-130/30
118-74-1	Hexachlorobenzene	ND		50	50.3	101	41.2	82	20	61-130/30
87-68-3	Hexachlorobutadiene	ND		50	21.1	42	16.5	33	24	10-130/30
77-47-4	Hexachlorocyclopentadiene	ND		50	24.6	49	19.2	38	25	10-130/30
67-72-1	Hexachloroethane	ND		50	21.1	42	16.0	32	27	10-130/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	53.1	106	41.9	84	24	47-142/30
78-59-1	Isophorone	ND		50	51.9	104	42.0	84	21	39-130/30
91-57-6	2-Methylnaphthalene	ND		50	38.6	77	29.9	60	25	27-130/30
91-20-3	Naphthalene	ND		50	40.8	82	32.1	64	24	28-130/30
88-74-4	2-Nitroaniline	ND		50	25.1	50	20.7	41* [b]	19	50-130/30
99-09-2	3-Nitroaniline	ND		50	38.3	77	31.2	62	20	11-156/30
100-01-6	4-Nitroaniline	ND		50	18.7	37* [b]	14.7	29* [b]	24	49-130/30
98-95-3	Nitrobenzene	ND		50	50.9	102	41.6	83	20	31-130/30
86-30-6	N-Nitrosodiphenylamine	ND		50	49.4	99	40.9	82	19	34-134/30
621-64-7	N-Nitroso-di-n-propylamine	ND		50	51.1	102	43.3	87	17	33-130/30
85-01-8	Phenanthrene	ND		50	49.5	99	40.2	80	21	63-130/30
129-00-0	Pyrene	ND		50	54.8	110	44.2	88	21	68-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	32.0	64	24.2	48	28	15-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D48562-12	Limits
367-12-4	2-Fluorophenol	62%	45%	45%	10-130%
4165-62-2	Phenol-d5	41%	34%	29%	10-130%
118-79-6	2,4,6-Tribromophenol	98%	74%	76%	16-130%

* = Outside of Control Limits.

6.3.1

6

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D49891
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8462-MS	1G115227.D	1	08/30/13	DC	08/28/13	OP8462	E1G1101
OP8462-MSD	1G115228.D	1	08/30/13	DC	08/28/13	OP8462	E1G1101
D48562-12	1G115226.D	1	08/30/13	DC	08/28/13	OP8462	E1G1101

The QC reported here applies to the following samples: **Method:** SW846 8270C

D49891-1

CAS No.	Surrogate Recoveries	MS	MSD	D48562-12	Limits
4165-60-0	Nitrobenzene-d5	96%	75%	66%	14-130%
321-60-8	2-Fluorobiphenyl	92%	75%	64%	16-130%
1718-51-0	Terphenyl-d14	106%	89%	92%	10-145%

(a) Variability of recovery may be due to sample matrix/homogeneity.
(b) Outside control limits due to possible matrix interference.

* = Outside of Control Limits.

OMB No. 2040-0042 Approval Expires 12/31/2011

EPA

United States Environmental Protection Agency
Washington, DC 20460

Injection Well Monitoring Report

Year 2013	Month July	Month August	Month September
Injection Pressure (PSI)			
1. Minimum	500	500	500
2. Average	462	429	481
3. Maximum	500	500	500
Injection Rate (Gal/Min)			
1. Minimum	55	55	55
2. Average	55	55	55
3. Maximum	55	55	55
Annular Pressure (PSI)			
1. Minimum	130	130	130
2. Average	130	130	130
3. Maximum	130	130	130
Injection Volume (Gal)			
1. Monthly Total	670,278	741,048	794,514
2. Yearly Cumulative	4,365,690	5,106,738	5,901,252
Temperature (F °)			
1. Minimum			
2. Average			
3. Maximum			
pH			
1. Minimum			
2. Average			
3. Maximum			
Other			
Class I-Non-Hazardous	0	0	0
Class I-Non-Haz. Cumulative	50	50	50

Name and Address of Permittee
Wattenberg Disposal, LLC, 8979 WCR 22, Fort Lupton, CO 80621

Permit Number
CO-10938-2115

Name and Official Title *(Please type or print)*
Renae Patterson, Admin. Assistant

Signature
Renae Patterson

Date Signed
10/9/13

EPA Form 7520-8 (Rev. 12-08)

LEASE #	LEASE NAME	DATE 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		LEASE TOTALS
67528	AMEN 1																					60											60
61864	AMOCO-CHARTER-SCHNEI					33																				40							73
61883	AMOCO CHART SCHNEIDER A					34																				40							74
61902	AMOCO CHART SCHNEIDER B					33																				40							73
58368	AMOCO-ENERGY-SMITS U					30														50											15		80
17450	ANDERSON				20														35												18		70
192530	BAURER 41-36			40						33				30					43					27				43					234
58425	BELL UNIT, *CHARLES									27				25																			52
58406	BELL, *CHARLES C									28				25																			53
59850	BERGER A						18																	23									41
59850B	BERGER, *JACK & BERG						17																	22									39
103500	BRIGGS #1											70																					70
61186	BURKHARDT SELTZER																	40								30							70
24571	CAMENISCH 2-32						55																										55
24591	CAMENISCH 8-32						55																										55
24569	CAMENISCH 41-32						55																										55
24704	CAMENISCH 50-32					130																		130									260
17451	CARTER 21-33									55									80									20					135
68996	CHAMPLIN 86 AMOCO F 3									15																		20					35
58463	CHRISTENSEN UNIT, *N									15																							35
58444	CHRISTENSEN, *NELS											23																					23
09163	COBURN CLEMENTINE 1											22																					22
09593	COBURN CLEMENTINE B1																							40									100
58482	DAMIANA, *JAMES A			30		30																				40							40
60040	DEEPE C, *CARL R													10																			10
07895	DEVORE 1, 2													10																			10
07896	DEVORE 2													10																			10
09272	DEVORE 3, 4													10										27				43			19		235
09271	DEVORE 4									33				30					43					26				44			18		236
194160	EIBERGER 32-36			40						34				30					44									5					29
194110	EIBERGER 42-36			40															18									5					29
08391	ELKHORN CO B3					6													19									5					29
08694	ELKHORN CO B5					5													18									5					29
09488	ELKHORN CO B6					6													18									5					30
09489	ELKHORN CO B7					6													19									5					29
09490	ELKHORN CO B8					6													18									5					40
09491	ELKHORN CO B9					6																											420
16081	EWING 23-30				40					125		85					130			100													920
00001	FACILITY 1			40							330	130								30				130	260								60
00002	FACILITY 2						60											130										130					650
00003	FACILITY 3					130					130	130					80	80								80							470
00004	FACILITY 4			100		130											130	120		20				130									435
00005	FACILITY 5					25				40		100																					230
00006	FACILITY 6				100														130														390
00007	FACILITY 7				130						130						130																130
00008	FACILITY 8									55							130				130										130		185
0004WA	FACILITY 4WA				130														80														390
0004WB	FACILITY 4WB																130																80
60095	FINDLAY, *RICHARD R																130				30												130
59269	FIRECRACKER																				30												30
62016	FRISBEE																																30
32751	FRONT RANGE 11-17-5						40												17														40
32754	FRONT RANGE 11-17-6																		18														17
62603	GENESIS 3																		17														18
07887	GERHARDT GEORGE H 1																		18														17
08124	GERHARDT GEORGE H 2																		17														18
08946	GERHARDT GEORGE H 3																		18										40				40
13577	GERHARDT GEORGE H 4																																30
59639	GRANT #'S 1,2,3,4				30							40						40									40						150
61484	GUILDNER					30																						17					32
5869	GUTHRIE 1 & 2				15																							25					55
60192	HALEY TRUSTEE, *JAME			30							35																						35
60211	HANKS																			40													40
60249	HART UNIT B, MARTIN				15																			18				16					31
59033	HAUDRICH #1 & 2					15								35										17							15		83
62020	HEIN 1-2						15							35																	15		82
60290	HERMAN UNIT B, *ALFR						15													15													15
58505	HERMAN UNIT, *ALFRED																	35				20											55
58501	HLADKY-O'GORMAN							20																									20
60310	HORST B, JOHN 1 & 2										40	65																25					105
04200	HORTH R1-R2																					25											25
60324	HUNZIKER																					25											25
59592	JOHNSON #'S 1 & 2																			13											7		20
16057	KOCH 41-6																			14											6		20
09204	KOCH, KEN																			13											7		20
29642	KOESTER 18-33																			40											30		115
29643	KOESTER 18-33-6											45								25													25
29605	KOESTER 18-33-4																										130						130
29606	KOESTER 3-33-3																																7
58789	KOSHIO											7																					8
31483	KNUDSEN											8																					7
16116	KUNZMAN 43-6											7																					8
07686	KUNZMAN JOHN A #1											8								35													35
09296	KUNZMAN 2																																
09719	KUNZMAN 4																																
09653	LANSDOWN 1																																

Mountain States ACCUTEST LABORATORIES

10/10/13

Technical Report for

K.P. Kauffmann Company, Inc.

Wattenberg Tank

Accutest Job Number: D51004

Sampling Date: 09/26/13

Report to:

Apex Consulting Services
PO Box 369
Louisville, CO 80027-0369
mhattel@msn.com; slaramesa@kpk.com

ATTN: Mike Hattel

Total number of pages in report: 29

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Scott Heideman
Laboratory Director

Client Service contact: Shea Greiner 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

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ACCUTEST LABORATORIES

2

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	K.P. Kauffmann Company, Inc.	**Job No**	D51004
Site:	Wattenberg Tank	**Report Date**	10/10/2013 3:11:44 PM

On 09/26/2013, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 4 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D51004 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals By Method SW846 6010C

Matrix AQ **Batch ID:** MP11280

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D51020-1FMS, D51020-1FMSD, D51020-1FSDL were used as the QC samples for the metals analysis.

Wet Chemistry By Method ASTM D287

Matrix ALL **Batch ID:** GN22063

- The data for ASTM D287 meets quality control requirements.

Wet Chemistry By Method EPA 1664A

Matrix AQ **Batch ID:** GP11131

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D50948-1MS were used as the QC samples for the HEM Oil and Grease analysis.

Wet Chemistry By Method EPA 300.0/SW846 9056

Matrix AQ **Batch ID:** GP11028

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D51020-3MS, D51020-3MSD were used as the QC samples for the Chloride, Nitrogen, Nitrate, Nitrogen, Nitrite, Sulfate, Chloride analysis.
- D51004-1 for Nitrogen, Nitrate: Elevated detection limit due to matrix interference.

Wet Chemistry By Method SM 2540C-2011

Matrix AQ **Batch ID:** GN22105

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D50934-1DUP were used as the QC samples for the Solids, Total Dissolved analysis.

Wet Chemistry By Method SM 5310B-2011

Matrix AQ	Batch ID: GP11056

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D50865-3DUP, D50865-3MS, D50865-3MSD were used as the QC samples for the Total Organic Carbon analysis.

Wet Chemistry By Method SM4500HB+-2011/9040C

Matrix AQ	Batch ID: GN22084

- The following samples were run outside of holding time for method SM4500HB+-2011/9040C: D51004-1 Analysis performed past the required 15 minutes from collection time/holding time.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-I		
Lab Sample ID:	D51004-1	Date Sampled:	09/26/13
Matrix:	AQ - Water	Date Received:	09/26/13
		Percent Solids:	n/a
Project:	Wattenberg Tank		

4.1

4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	4660	130	mg/l	250	09/27/13 11:40	SK	EPA 300.0/SW846 9056
HEM Oil and Grease	314	4.8	mg/l	1	10/10/13	SWT	EPA 1664A
Nitrogen, Nitrate [a]	< 0.20	0.20	mg/l	20	09/27/13 10:22	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrite	0.10	0.080	mg/l	20	09/27/13 10:22	SK	EPA 300.0/SW846 9056
Solids, Total Dissolved	8590	10	mg/l	1	10/01/13	JD	SM 2540C-2011
Specific Gravity by Hydromete	1.0071			1	09/27/13	MM	ASTM D287
Sulfate	12.7	10	mg/l	20	09/27/13 10:22	SK	EPA 300.0/SW846 9056
Total Organic Carbon	1480	100	mg/l	100	10/02/13 16:27	GH	SM 5310B-2011
pH [b]	8.76		su	1	09/30/13 09:45	JD	SM4500HB+-2011/9040C

(a) Elevated detection limit due to matrix interference.
(b) Analysis performed past the required 15 minutes from collection time/holding time.

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-I		
Lab Sample ID:	D51004-1F	Date Sampled:	09/26/13
Matrix:	AQ - Water Filtered	Date Received:	09/26/13
		Percent Solids:	n/a
Project:	Wattenberg Tank		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	65000	20000	ug/l	5	10/04/13	10/05/13	JM	SW846 6010C [1]	SW846 3010A [3]
Magnesium	13200	10000	ug/l	5	10/04/13	10/05/13	JM	SW846 6010C [1]	SW846 3010A [3]
Potassium	111000	50000	ug/l	5	10/04/13	10/05/13	JM	SW846 6010C [1]	SW846 3010A [3]
Sodium	3100000	20000	ug/l	5	10/04/13	10/08/13	JM	SW846 6010C [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA4038
(2) Instrument QC Batch: MA4046
(3) Prep QC Batch: MP11280

RL = Reporting Limit

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories

4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX: 303-425-6854

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: D51004

Client / Reporting Information

Company Name: K.P. Kauffman Company, Inc.
Address: 1675 Broadway, Suite 2800
City: Denver State: CO Zip: 80202-4628
Project Contact: Susan Lara-Mesa SLaraMesa@kpk.com
Phone #: 303-825-4822
Samplers's Name: MICHAEL HATTEL (303-665-1400)

Project Information

Project Name: WATTENBERG TANK
Street:
City: Fort Lupton State: CO
Project #:
Fax #:
Client Purchase Order #: 7591

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	OIL & GREASE 1664	ANIONS (NITRATE, NITRITE, SULFATE, CHLORIDE)	pH	CATIONS (Ca, K, Mg, NA)	SPECIFIC GRAVITY	TDS	TOC					LAB USE ONLY
	TANK - I		9/26/13	1102	MDH	LIQ	6	X			X					X	X	X	X	X	X	X					01
																											9/26/13

Requested Analysis

Matrix Codes: DW- Drinking Water; GW- Ground Water; WW- Water; SW- Surface Water; SO- Soil; SL-Sludge; OI-Oil; LIQ- Other Liquid; AIR- Air; SOL-Other Solid; WP-Wipe

Turnaround Time (Business days)
[X] Std. 10 Business Days
Approved By/ Date:
Emergency T/A data available VIA Lablink

Data Deliverable Information
[ ] Commercial "A"
[ ] Commercial "B"
[ ] NJ Reduced
[ ] NJ Full
[X] Hard Copy
[ ] FULL CLP
[ ] NYASP Category A
[ ] NYASP Category B
[ ] State Forms
[X] PDF

Comments / Remarks
NO Hard Copy
PDF copy to Mike Hattel with APEX at mhattel@msn.com
PDF copy to Susana Lara-Mesa w KPK at SLaraMesa@kpk.com

Sample Custody must be documented below each time samples change possession, including courier delivery

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	[signature]	9/26/13 1310	1 [signature] 9/26/13 1310	[signature] 9/26/13	1545	2 Jacob Porter 9/26/13 1600
2	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3			3	4		4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal # HD/CU	Preserved where applicable ☒	On Ice ☒ Cooler Temp. 4.0

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D51004: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D51004 **Client:** K.P.KAUFFMAN COMPANY **Immediate Client Services Action Required:** No

Date / Time Received: 9/26/2013 4:00:00 PM **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: WATTENBERG TANK **Airbill #'s:** HD-CO

Cooler Security	Y	or N		Y	or N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	or N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Infared gun	
3. Cooler media:	Ice (bag)	

Quality Control Preservation	Y	or N	N/A
1. Trip Blank present / cooler:	☐	☐	
2. Trip Blank listed on COC:	☐	☐	
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	or N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	or N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	or N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume rec'd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:(303) 425-6021
4036 Youngfield Street
F: (303) 425-6854
Wheat Ridge, CO
www/accutest.com

5.1 5

D51004: Chain of Custody
Page 2 of 2

Mountain States ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D51004
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP11280
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/04/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	11	41		
Antimony	30	2.1	19		
Arsenic	25	3.8	5.6		
Barium	10	.2	1.4		
Beryllium	10	.9	1.2		
Boron	50	.8	6.6		
Cadmium	10	.2	.36		
Calcium	400	2.4	41	1.0	<400
Chromium	10	.3	.4		
Cobalt	5.0	.5	.57		
Copper	10	.8	1.9		
Iron	70	1.5	9.5		
Lead	50	2.1	21		
Lithium	5.0	.4	2.7		
Magnesium	200	6.8	19	12.2	<200
Manganese	5.0	.5	.46		
Molybdenum	10	.4	.84		
Nickel	30	.5	.87		
Phosphorus	100	15	20		
Potassium	1000	99	270	70.1	<1000
Selenium	50	7.1	11		
Silicon	50	4.7	5.2		
Silver	30	.3	.6		
Sodium	400	7.3	170	26.4	<400
Strontium	5.0	.01	.12		
Thallium	10	1.8	4		
Tin	50	12	16		
Titanium	10	.1	2.1		
Uranium	50	2.9	5.5		
Vanadium	10	.4	.4		
Zinc	30	.4	3.2		

Associated samples MP11280: D51004-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D51004
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP11280
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.1

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D51004
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP11280
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/04/13

Metal	D51020-1F Original	MS	Spikelot ICPALL2	% Rec	QC Limits
Aluminum					
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium					
Boron					
Cadmium	anr				
Calcium	243000	266000	25000	112.0	75-125
Chromium	anr				
Cobalt	anr				
Copper					
Iron	anr				
Lead	anr				
Lithium					
Magnesium	46700	71300	25000	98.4	75-125
Manganese	anr				
Molybdenum					
Nickel	anr				
Phosphorus					
Potassium	11000	40600	25000	118.4	75-125
Selenium	anr				
Silicon					
Silver	anr				
Sodium	110000	135000	25000	100.0	75-125
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP11280: D51004-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D51004
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP11280
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.1.2
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D51004
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP11280
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/04/13

Metal	D51020-1F Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium						
Boron						
Cadmium	anr					
Calcium	243000	261000	25000	92.0	1.9	20
Chromium	anr					
Cobalt	anr					
Copper						
Iron	anr					
Lead	anr					
Lithium						
Magnesium	46700	70800	25000	96.4	0.7	20
Manganese	anr					
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	11000	40400	25000	117.6	0.5	20
Selenium	anr					
Silicon						
Silver	anr					
Sodium	110000	136000	25000	104.0	0.7	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP11280: D51004-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D51004
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP11280
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.1.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D51004
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP11280
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/04/13

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium	24900	25000	99.6	80-120
Chromium	anr			
Cobalt	anr			
Copper				
Iron	anr			
Lead	anr			
Lithium				
Magnesium	24100	25000	96.4	80-120
Manganese	anr			
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	26300	25000	105.2	80-120
Selenium	anr			
Silicon				
Silver	anr			
Sodium	25500	25000	102.0	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP11280: D51004-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D51004
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP11280
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.3

6

SERIAL DILUTION RESULTS SUMMARY

Login Number: D51004
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP11280
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/04/13

Metal	D51020-1F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium	243000	246000	3.1	0-10
Chromium	anr			
Cobalt	anr			
Copper				
Iron	anr			
Lead	anr			
Lithium				
Magnesium	46700	48200	3.1	0-10
Manganese	anr			
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	11000	10800	2.3	0-10
Selenium	anr			
Silicon				
Silver	anr			
Sodium	110000	110000	0.5	0-10
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP11280: D51004-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D51004
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP11280
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

6.1.4

6

Mountain States ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D51004
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP11028/GN22065	0.050	0.0	mg/l	20	19.4	97.0	90-110%
Chloride	GP11028/GN22065	0.50	0.28	mg/l	20	19.5	97.5	90-110%
Fluoride	GP11028/GN22065	0.10	0.0	mg/l	10	9.51	95.1	90-110%
HEM Oil and Grease	GP11131/GN22239	5.0	0.0	mg/l	40	35.9	89.8	78-114%
Nitrogen, Nitrate	GP11028/GN22065	0.010	0.0	mg/l	4.52	4.40	97.4	90-110%
Nitrogen, Nitrite	GP11028/GN22065	0.0040	0.0	mg/l	6.09	6.12	100.5	90-110%
Solids, Total Dissolved	GN22105	10	0.0	mg/l	400	403	100.8	90-110%
Sulfate	GP11028/GN22065	0.50	0.0	mg/l	30	28.8	96.0	90-110%
Total Organic Carbon	GP11056/GN22123	1.0	0.0	mg/l	8.82	8.86	100.5	90-110%
pH	GN22084			su	8.00	7.98	99.8	99.3-100.7%

Associated Samples:
Batch GN22084: D51004-1
Batch GN22105: D51004-1
Batch GP11028: D51004-1
Batch GP11056: D51004-1
Batch GP11131: D51004-1
(*) Outside of QC limits

7

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D51004
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
HEM Oil and Grease	GP11131/GN22239	mg/l	40	35.5	1.1	20%

Associated Samples:
Batch GP11131: D51004-1
(*) Outside of QC limits

7.2
7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D51004
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN22105	D50934-1	mg/l	608	612	0.7	0-20%
Total Organic Carbon	GP11056/GN22123	D50865-3	mg/l	2.3	2.3	0.0	0-20%

Associated Samples:
Batch GN22105: D51004-1
Batch GP11056: D51004-1
(*) Outside of QC limits

7.3

7

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D51004
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP11028/GN22065	D51020-3	mg/l	0.65	5	5.5	97.0	80-120%
Bromide	GP11028/GN22065	D51020-3	mg/l	0.65	5	5.5	97.0	80-120%
Chloride	GP11028/GN22065	D51020-3	mg/l	78.5	50	127	97.0	80-120%
Chloride	GP11028/GN22065	D51020-3	mg/l	79.5	50	127	97.0	80-120%
Fluoride	GP11028/GN22065	D51020-3	mg/l	0.17	5	4.7	94.0	80-120%
Fluoride	GP11028/GN22065	D51020-3	mg/l	0.0	5	4.7	94.0	80-120%
HEM Oil and Grease	GP11131/GN22239	D50948-1	mg/l	0.0	40	37.5	93.8	78-114%
Nitrogen, Nitrate	GP11028/GN22065	D51020-3	mg/l	0.10	2.83	2.9	94.9	80-120%
Nitrogen, Nitrate	GP11028/GN22065	D51020-3	mg/l	0.22	2.83	2.9	94.9	80-120%
Nitrogen, Nitrite	GP11028/GN22065	D51020-3	mg/l	0.0	0.609	0.59	96.9	80-120%
Nitrogen, Nitrite	GP11028/GN22065	D51020-3	mg/l	0.0	0.609	0.59	96.9	80-120%
Sulfate	GP11028/GN22065	D51020-3	mg/l	19.0	20	40.0	104.0	80-120%
Sulfate	GP11028/GN22065	D51020-3	mg/l	19.2	20	40.0	104.0	80-120%
Total Organic Carbon	GP11056/GN22123	D50865-3	mg/l	2.3	10	12.7	104.0	80-120%

Associated Samples:
Batch GP11028: D51004-1
Batch GP11056: D51004-1
Batch GP11131: D51004-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D51004
Account: KPKCOD - K.P. Kauffmann Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP11028/GN22065	D51020-3	mg/l	0.65	5	5.5	0.0	20%
Bromide	GP11028/GN22065	D51020-3	mg/l	0.65	5	5.5	0.0	20%
Chloride	GP11028/GN22065	D51020-3	mg/l	78.5	50	128	0.8	20%
Chloride	GP11028/GN22065	D51020-3	mg/l	79.5	50	128	0.8	20%
Fluoride	GP11028/GN22065	D51020-3	mg/l	0.17	5	4.7	0.0	20%
Fluoride	GP11028/GN22065	D51020-3	mg/l	0.0	5	4.7	0.0	20%
Nitrogen, Nitrate	GP11028/GN22065	D51020-3	mg/l	0.10	2.83	2.9	0.0	20%
Nitrogen, Nitrate	GP11028/GN22065	D51020-3	mg/l	0.22	2.83	2.9	0.0	20%
Nitrogen, Nitrite	GP11028/GN22065	D51020-3	mg/l	0.0	0.609	0.59	0.0	20%
Nitrogen, Nitrite	GP11028/GN22065	D51020-3	mg/l	0.0	0.609	0.59	0.0	20%
Sulfate	GP11028/GN22065	D51020-3	mg/l	19.0	20	40.0	0.0	20%
Sulfate	GP11028/GN22065	D51020-3	mg/l	19.2	20	40.0	0.0	20%
Total Organic Carbon	GP11056/GN22123	D50865-3	mg/l	2.3	10	12.3	3.2	20%

Associated Samples:
Batch GP11028: D51004-1
Batch GP11056: D51004-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

7.5

7

Mountain States ACCUTEST LABORATORIES

10/10/13

Technical Report for

K.P. Kauffmann Company, Inc.

Wattenberg GW

Accutest Job Number: D51003

Sampling Date: 09/26/13

Report to:

Apex Consulting Services
PO Box 369
Louisville, CO 80027-0369
mhattel@msn.com; slaramesa@kpk.com

ATTN: Mike Hattel

Total number of pages in report: 14

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Scott Heideman
Laboratory Director

Client Service contact: Shea Greiner 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

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Test results relate only to samples analyzed.

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Sample Summary

K.P. Kauffmann Company, Inc.

Wattenberg GW

Job No: D51003

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D51003-1	09/26/13	09:00 MH	09/26/13	AQ	Ground Water	OW-1

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	K.P. Kauffmann Company, Inc.	**Job No**	D51003
Site:	Wattenberg GW	**Report Date**	10/10/2013 3:10:51 PM

On 09/26/2013, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 4.7 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D51003 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GC By Method SW846 8021B

Matrix AQ **Batch ID:** GTB1237

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D48574-16MS, D48574-16MSD were used as the QC samples indicated.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Summary of Hits

Job Number: D51003
Account: K.P. Kauffmann Company, Inc.
Project: Wattenberg GW
Collected: 09/26/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D51003-1	**OW-1**					
Benzene		3.6	1.0	0.20	ug/l	SW846 8021B

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

4.1

4

Client Sample ID:	OW-1		
Lab Sample ID:	D51003-1	**Date Sampled:**	09/26/13
Matrix:	AQ - Ground Water	**Date Received:**	09/26/13
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	Wattenberg GW		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB22480.D	1	10/10/13	EV	n/a	n/a	GTB1237
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	3.6	1.0	0.20	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	96%		60-140%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories
4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX 303-425-6854

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: D51003

Client / Reporting Information

Company Name: K.P. Kauffman Company, Inc.
Address: 1675 Broadway, Suite 2800
City: Denver State: CO Zip: 80202-4628
Project Contact: Susana Lara-Mesa SLaraMesa@kpk.com
Phone #: 303-665-1400
Samplers's Name: MICHAEL HATTEL (303-665-1400)

Project Information

Project Name: WATTENBERG GROUNDWATER
Street:
City: Fort Lupton State: CO
Project #:
Fax #:
Client Purchase Order #: 7591

Requested Analysis

Matrix Codes: DW- Drinking Water; GW- Ground Water; WW- Water; SW- Surface Water; SO- Soil; SL-Sludge; OI-Oil; LIQ- Other Liquid; AIR- Air; SOL-Other Solid; WP-Wipe

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	Na2S2O3	MEOH	ENCORE	BTEX	LAB USE ONLY
	OW-1		9/26/13	0900	MDH	GW	2	X								X	01

9/26/13

Turnaround Time (Business days)

- [X] Std. 10 Business Days
- Approved By/ Date:

Emergency T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] NJ Reduced
- [ ] NJ Full
- [X] Hard Copy
- [ ] FULL CLP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [X] PDF

Comments / Remarks

PDF copy to Susana Lara-Mesa with KPK at SLaraMesa@kpk.com

PDF copy also to Mike Hattel with APEX at mhattel@msn.com

Hard copy ONLY to Mike Hattel with APEX, P.O. Box 369, Louisville, CO 80027-0369

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	9/26/13 1540	1 9/26/13 1540	9/26/13	1545	2 Jacob Porter 9/26/13 1600
Relinquished By: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished By: 5	Date Time:	Received By: 5	Custody Seal # HP/00	Preserved where applicable X	On Ice X Cooler Temp. 4.7

5.1 5

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D51003 **Client:** K.P.KAUFFMAN COMPANY INC. **Immediate Client Services Action Required:** No

Date / Time Received: 9/26/2013 4:00:00 PM **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: WATTENBERG G.W. **Airbill #'s:** HD-CO

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Infared gun		
3. Cooler media:	Ice (bag)		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	
2. Trip Blank listed on COC:	☐		☐	
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume rec'd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www/accutest.com

5.1

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D51003: Chain of Custody
Page 2 of 2

Mountain States ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D51003
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTB1237-MB	TB22475.D	1	10/10/13	EV	n/a	n/a	GTB1237

The QC reported here applies to the following samples: **Method:** SW846 8021B

D51003-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
120-82-1	1,2,4-Trichlorobenzene	94%	60-140%

Blank Spike Summary

Job Number: D51003
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTB1237-BS	TB22476.D	1	10/10/13	EV	n/a	n/a	GTB1237

The QC reported here applies to the following samples: **Method:** SW846 8021B

D51003-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	27.2	24.3	89	70-130
100-41-4	Ethylbenzene	45.6	41.2	90	70-130
108-88-3	Toluene	212	180	85	70-130
1330-20-7	Xylenes (total)	216	201	93	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	100%	60-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D51003
Account: KPKCOD K.P. Kauffmann Company, Inc.
Project: Wattenberg GW

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D48574-16MS	TB22478.D	1	10/10/13	EV	n/a	n/a	GTB1237
D48574-16MSD	TB22479.D	1	10/10/13	EV	n/a	n/a	GTB1237
D48574-16	TB22477.D	1	10/10/13	EV	n/a	n/a	GTB1237

The QC reported here applies to the following samples: **Method:** SW846 8021B

D51003-1

CAS No.	Compound	D48574-16 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		27.2	24.7	91	24.2	89	2	55-133/30
100-41-4	Ethylbenzene	ND		45.6	41.7	91	40.9	90	2	63-130/30
108-88-3	Toluene	ND		212	183	86	179	85	2	70-130/30
1330-20-7	Xylenes (total)	ND		216	203	94	198	92	2	64-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D48574-16	Limits
120-82-1	1,2,4-Trichlorobenzene	101%	101%	96%	60-140%

* = Outside of Control Limits.

OMB No. 2040-0042 Approval Expires 12/31/2011

EPA

United States Environmental Protection Agency
Washington, DC 20460

Injection Well Monitoring Report

Year 2013	Month	Month	Month
Injection Pressure (PSI)	July	August	September
1. Minimum	500	500	500
2. Average	462	429	481
3. Maximum	500	500	500
Injection Rate (Gal/Min)			
1. Minimum	55	55	55
2. Average	55	55	55
3. Maximum	55	55	55
Annular Pressure (PSI)			
1. Minimum	130	130	130
2. Average	130	130	130
3. Maximum	130	130	130
Injection Volume (Gal)			
1. Monthly Total	670,278	741,048	794,514
2. Yearly Cumulative	4,365,690	5,106,738	5,901,252
Temperature (F °)			
1. Minimum			
2. Average			
3. Maximum			
pH			
1. Minimum			
2. Average			
3. Maximum			
Other			
Class I-Non-Hazardous	0	0	0
Class I-Non-Haz. Cumulative	50	50	50

Name and Address of Permittee
Wattenberg Disposal, LLC, 8979 WCR 22, Fort Lupton, CO 80621

Permit Number
CO-10938-2115

Name and Official Title *(Please type or print)*
Renae Patterson, Admin. Assistant

Signature
Renae Patterson

Date Signed
10/9/13

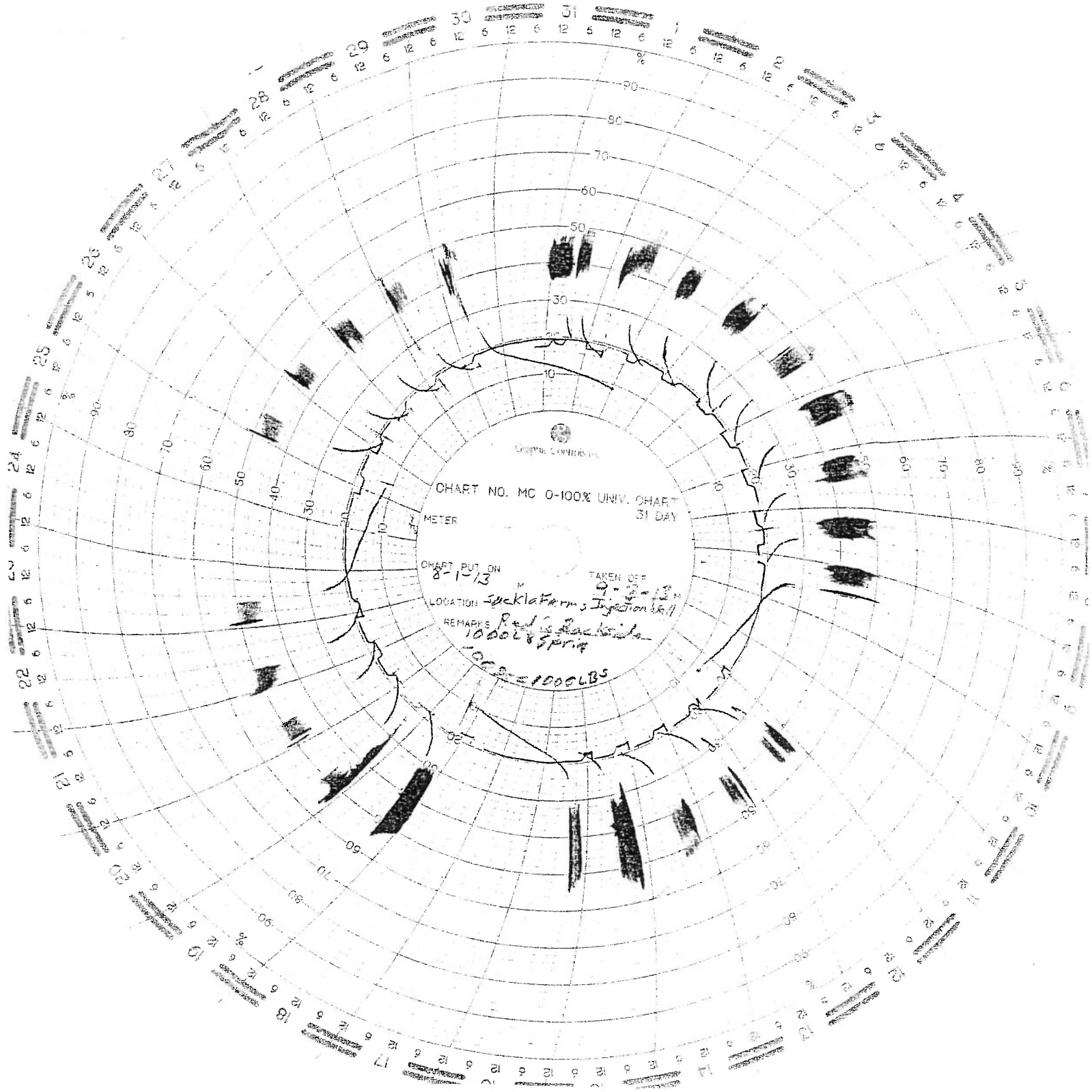
EPA Form 7520-8 (Rev. 12-08)

LEASE #	LEASE NAME	DATE 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	LEASE TOTALS
																																	25
60003	1415 CORPORATION C		25																		60										30		130
67528	AMEN 1									40																	10						10
61864	AMOCO-CHARTER-SCHNEI																										10						10
61883	AMOCO CHART SCHNEIDER A																										10						10
61902	AMOCO CHART SCHNEIDER B																					45											75
58368	AMOCO-ENERGY-SMITS U									30																			15				15
67529	ANDERSON #1																																40
61450	ANDERSON 1, 2						40																	27									64
17450	ANDERSON									20							17												15				15
23789	ANDERSON 13-32																												15				15
23790	ANDERSON 12-32																												15				15
23792	ANDERSON 14-32																											59			30		245
192530	BAURER 41-36							40					43			27				23			23					25			20		120
58425	BELL UNIT, *CHARLES								30												45							25			20		120
58406	BELL, *CHARLES C								30												45												15
59850	BERGER A																				15												15
59850B	BERGER, *JACK & BERG																				15												245
62607	BERNHARDT 1-11																							45					200				100
103500	BRIGGS #1									40													60										64
24571	CAMENISCH 2-32																										32				32		66
24591	CAMENISCH 8-32																										33				33		65
24569	CAMENISCH 41-32																										33				32		65
24704	CAMENISCH 50-32																										32				33		10
60113	CAMENISCH 1														10																		10
23577	CAMENISCH 32-10														10																		10
23578	CAMENISCH 32-16														10																		10
23579	CAMENISCH 32-9														10																		10
26440	CAMENISCH 20-32														10																		10
58463	CHRISTENSEN UNIT, *N								12								23							23							20		78
58444	CHRISTENSEN, *NELS								13								22							22							20		77
09163	COBURN CLEMENTINE 1							20									18														20		58
09593	COBURN CLEMENTINE B1							20									17														20		57
58482	DAMIANA, *JAMES A	45								35												45											125
60040	DEEPE C, *CARL R													45																			45
07886	DUTCHER B 1																17																17
08945	DUTCHER B 2																18																18
08684	DUTCHER C 1																17																17
08899	DUTCHER C 2																18																18
56054	ED KAM 3-28																130				115	100											345
194160	EIBERGER 32-36							40					43			27				24			23					58			30		245
194110	EIBERGER 42-36							40					44			26				23			24					58			30		245
08391	ELKHORN CO B3																														6		6
08694	ELKHORN CO B5																														5		5
09488	ELKHORN CO B6																														6		6
09489	ELKHORN CO B7																														6		6
09490	ELKHORN CO B8																														6		6
09491	ELKHORN CO B9																														6		6
59268	ENERGY MINERALS A 1																							15									15
60074	EWING C #1, *HARRY																												20				20
16081	EWING 23-30						23																										23
00001	FACILITY 1	70					130						25	130						70								130			100		655
00002	FACILITY 2		130					130												40				130			45				130		605
00003	FACILITY 3						40																							45			85
00004	FACILITY 4	110					80	130						130							130							130		130			840
00005	FACILITY 5		80										130			130							130										470
00006	FACILITY 6																		70					25						100			195
00007	FACILITY 7						130								130													130					390
00008	FACILITY 8	100													130														130				360
0004WB	FACILITY 4WB		70							80							90										80						320
60095	FINDLAY, *RICHARD R																											100					100
59269	FIRECRACKER		65												60														70				195
62016	FRISBEE	75																															75
32751	FRONT RANGE 11-17-5					25																						30					55
32754	FRONT RANGE 11-17-6					25																						30					55
62603	GENESIS 3																											130	130		130		390
07887	GERHARDT GEORGE H 1								10												15												25
08124	GERHARDT GEORGE H 2								10												15												25
08946	GERHARDT GEORGE H 3								10												15												25
13577	GERHARDT GEORGE H 4								10												15												25
59839	GRANT #'S 1,2,3,4																					40											40
67532	GRAY														13																		13
61484	GUILDNER												25																				25
5869	GUTHRIE 1 & 2		30							40						40					35							40			30		215
60192	HALEY TRUSTEE, *JAME	14												15															13				42
60211	HANKS																				40												40
60249	HART UNIT B, MARTIN																					30											30
60270	HART UNIT F, MARTIN																							15									15
60230	HART, MARTIN T 1,2,3																							15									15
59033	HAUDRICH #1 & 2		20							40							35							25							20		140
62020	HEIN 1-2	13												15															13				41
23535	HEPP 32-4														12																		12
23534	HEPP 32-5														13																		13
23536	HEPP 32-6														12																		12

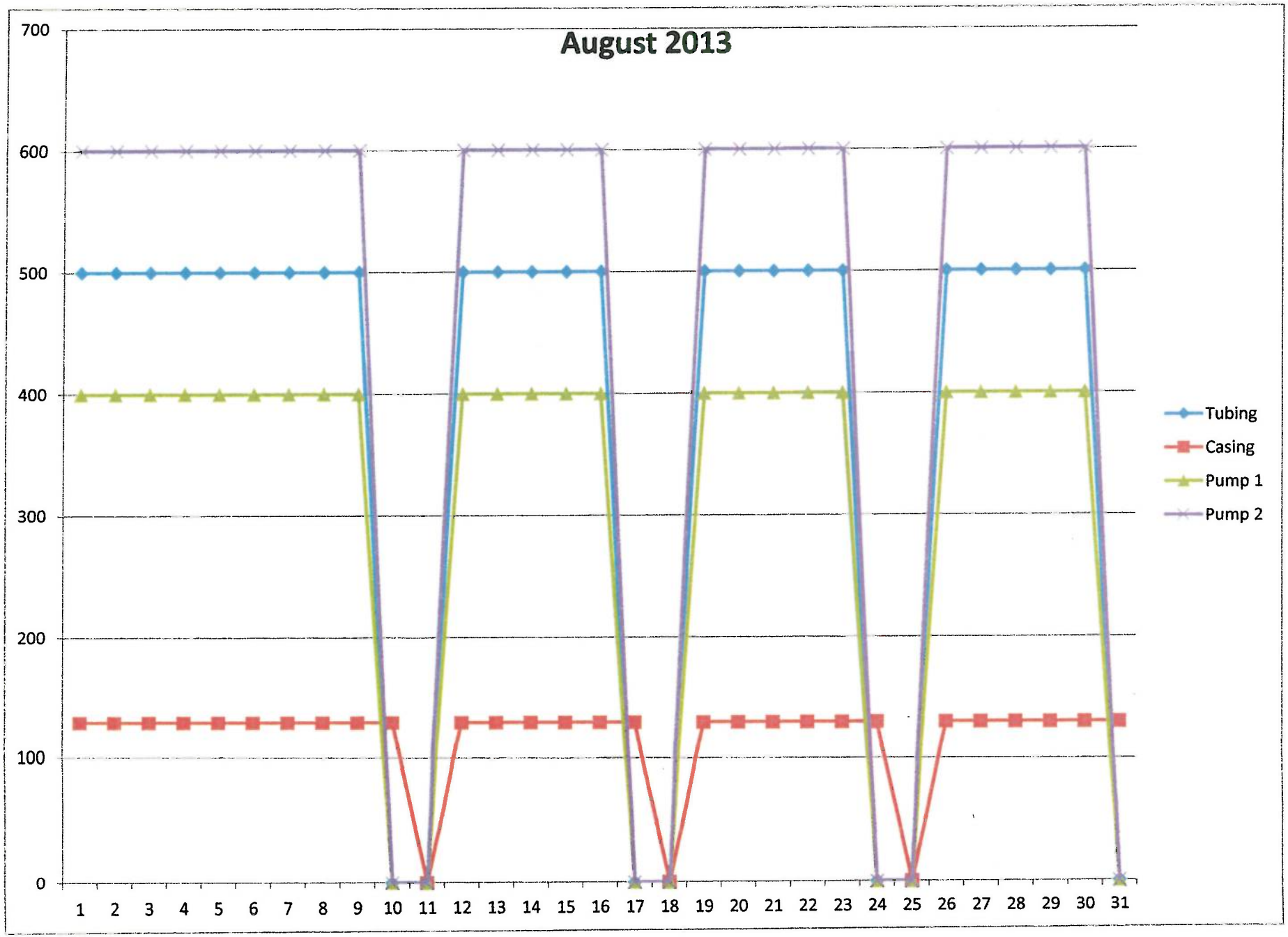
																																	38
60290	HERMAN UNIT B, *ALFR		20												18																		37
58505	HERMAN UNIT, *ALFRED		20												17																25		25
56134	HILL 3-10																																20
58501	HLADKY-O'GORMAN												20																				75
60310	HORST B, JOHN 1 & 2														25					30							20						45
04200	HORTH R1-R2								25																						20		80
60324	HUNZIKER					40																							20		40		20
58520	IONE LAND & CATTLE																												20				20
60320	IONE UNIT B 1																					25											25
59592	JOHNSON #'S 1 & 2																				20												20
16057	KOCH 41-8																				20												20
09204	KOCH, KEN													10																	13		23
29642	KOESTER 18-33													10																	14		24
29643	KOESTER 18-33-6																														13		13
29605	KOESTER 18-33-4													10																			10
34025	KOESTER 18-33-5																														30		110
29606	KOESTER 3-33-3					40					40											45											45
30275	KOESTER 3-33-21																			30													30
6080	KORTUM 2 A															9																	9
16116	KUNZMAN 43-6															8																	8
07668	KUNZMAN JOHN A #1															9																	9
09296	KUNZMAN 2															9																	9
09719	KUNZMAN 4																														15		37
09653	LANSDOWN 1	22																		20											15		58
07348	LANSDOWN WM D 1	23												30						20		30											80
10437	LANSDOWN WM D UNIT D1												60								70				70								265
59831	LANSON'S FARM 1-16		65											30								30											60
16883	LEGG 14-22															30															25		55
56138	LOEFFLER 1-18																														20		20
67150	LOEFFLER 2-24															20																	20
56141	MATSUSHIMA 3-14															20																	20
23518	MATSUSHIMA 4-19X																								35								35
07881	MCCOY PHILLIP #1												35						40							40						140
59071	MCCRUMB #'S 1 & 2		25																20														40
08644	MILLARD 1								20										20														40
10548	MILLARD 2								20																								27
58709	MILLER 13-5							27																				14					42
60572	MILLER A, *CARL A	13											15																				27
68278	MILLER B #14, *CARL							27																									26
60559	MILLER E #1, *CARL A							26																				20					40
6436	MITCHELL 32-3												20								20												40
6442	MITCHELL 32-8												20																				20
6446	MITCHELL 32-9												20								25												25
6352	MURPHY 5-2																																20
69075A	MUSICK 1-2-4-7							20																							30		60
69075B	MUSICK 3-5							30																						85			300
32872	NRC 9-9-15H		60				70									40						45											25
6119	NEWLANDER	25																															50
92250	PACE-CONNELLY 3																				50												50
92260	PACE-CONNELLY 8																				50												30
62410	PHELPS 1-13															30																	20
56058	PHELPS 3-26															20																	20
259619	ROCKY MOUNTAIN FUEL 9-8																			10							10						20
60762	ROCKY MTN FUEL CO C 7&8																			10							10						40
68126	ROCKY MTN FUEL CO C 4, 10																			20							20						20
6377	ROSENFIELD 6-1												20																				20
6381	ROSENFIELD 6-5																											20					20
58596	SAKATA 1														25					30							20						75
60790	SCHUTT, MARVIN E 1						35																										35
20008	SHAW 15-20						35																										35
20133	SHAW 16-20																										110						110
60800	SICKLER, SHELDON 1 T								20							18						28											66
12602	SPRAGUE A M A 1														43				43		8				43			30			37		204
6515	STATE 14-32														44				44		9				44			30			36		207
6741	STATE 14														43				43		8				43			30			37		204
6746	STATE 14-31																																73
60819A	STREAR, *SIDNEY		23					20							30																		72
60820	STREAR		22					20							30																30		30
62593	STRONG 1												145																				145
60933	SUCKLA BROWN 17																										12						12
35079	SUNMARKE 19-28-12																										13						13
35080	SUNMARKE 19-28-11																										12						12
35081	SUNMARKE 19-28-14																										13						13
35082	SUNMARKE 19-28-13													35																			35
5797	TIPPETT 6-2																			40													40
58653	TWOMBLEY B, *MARGARE													45																			45
02091B	UPRR 23 D4															20																	20
61070	UPRR 42 PAN AM AF 1,						130									130																	260
61008	UPRR 42 D								40													60											60
61047	UPRR 42 PAN AM G																											220					1240
61067	UPRR 43 PAN AM I										130	50		130	260					130							20					42
61068	UPRR 42 PAN AM N	190	130				22												50														50
61078	VINCENT UNIT, R S 1&																			12													24
67770	VINCENT J 3																			11													22
62130	WAGNER #1	12																		12													24
61719	WAGNER #1B	11																															
62131	WAGNER #'S 1A & 2A	12																															

61095	WALKING, *CARY													20																		20
15925	WOOLEY 13-14																										35					35
66995	WUERTZ 12-3														40																	40
	TOTALS	735	785	0	0	130	735	420	295	450	0	0	480	760	630	655	1045	0	70	360	905	370	540	605	0	0	555	1225	1080	360	1215	0	
																																14405
																																14405

LEASE #	LEASE NAME	DATE 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	LEASE TOTALS
																																	0
																																	0
	ANGI ALLES RECEIVER																																0
G018	BERTHOUD BOOSTER																																0
	CDP 7 RECEIVER																												80				210
G012	EATON PLANT					130													70														70
G033	ENTERPRISE BOOSTER																																0
G009	GREELEY OFFICE																							390								75	1375
G011	GREELEY PLANT			260	390	130										130																	0
	JODY BOOSTER																																0
G018	JOHNSTOWN BOOSTER																																0
G034	KRAUTHEAD																															80	160
G088	LIBSACK/GILL								80																								950
G013	LUCERNE PLANT		210		130		280								80							250											0
	MARIA BOOSTER																																0
G018	MARILYN BOOSTER																																130
	MARLA STATION														130																		0
G018	MARTHA BOOSTER																																2545
G014	MEWBOURN PLANT	130				260			90	70	130	210	100	100	140	65	85			140	80	85	130	70			130	200		200	130		0
	MID POINT BOOSTER																																0
	PARKER PARSLEY BOOSTER																																300
G862	PLATTEVILLE PLANT	80					90												130														0
	REINICK RECEIVER																																0
G035	RIVERSIDE BOOSTER																																0
G032	ROGGEN FIELD																																245
G031	ROGGEN PLANT													130	80	35																	0
G018	SINGLETREE BOOSTER																																0
	SOUTHFIELD BOOSTER																										65					80	615
G010	SPINDLE PLANT	150				240	80																										0
G018	SURREY BOOSTER																																0
G036	TAMPA																																0
G023	WELD BOOSTERS																																0
G017	WELD FIELD																																0
L095	WELD MEASUREMENT																																0
G018	WEST SPINDLE BOOSTER																																0
																																	0
	TOTAL	360	210	260	520	760	450	0	170	70	130	210	100	230	430	230	85	0	200	140	80	335	130	460	0	0	195	200	80	200	130	235	6600
																																	6600



Suckla Farms
Injection Well #1
8-1-13 to 9-3-13
100 LB spring - Backside
pressure @ 100% equal's 100 P.S.I.


August 2013
700
600
500
400
300
200
100
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Tubing
Casing
Pump 1
Pump 2

August 2013

WATTENBERG DAILY EVALUATION SHEET

Date	Time	Injecting Fluid Yes	Injecting Fluid No	Pressured Annulus Yes	Pressured Annulus No	Tubing Pressure	Annulus Pressure	Estimated Barrels Injected (prior 24 hrs)	Ambient Air Temperature (est)	Weather Conditions	Remarks/Summary Prior 24 Hrs.
1	All Night	X		X		650	130	1529			
2	6:15A		X	X		Ø	130	920			
3	6:15A		X	X		Ø	130	668			
4	6:15A		X	X		Ø	130	333			
5	6:15A		X	X		Ø	130	585			
6	6:15A		X	X		Ø	130	592			
7	6:15A		X	X		Ø	130	776			
8	6:15A		X	X		Ø	130	799			
9	6:15A		X	X		Ø	130	682			
10	Closed		X	X		Ø	130	585			
11	Closed		X	X		Ø	130	Ø			
12	6:15A		X	X		Ø	130	Ø			
13	6:15A		X	X		Ø	130	603			
14	6:00A		X	X		Ø	130	560			
15	6:15A		X	X		Ø	130	765			
16	6:15A		X	X		Ø	130	676			
17	Closed		X	X		Ø	130	687			
18	Closed		X	X		Ø	130	Ø			
19	6:15A		X	X		Ø	130	Ø			
20	6:15A		X	X		Ø	130	655			
21	6:15A		X	X		Ø	130	727			
22	7:00A		X	X		Ø	130	980			
23	6:15A		X	X		Ø	130	701			
24	Closed		X	X		Ø	130	932			
25	Closed		X	X		Ø	130	Ø			
26	6:15A		X	X		Ø	130	Ø			
27	6:15A		X	X		Ø	130	908			
28	6:15A		X	X		Ø	130	882			
29	6:15A		X	X		Ø	130	842			
30	6:15A		X	X		Ø	130	819			
31	Closed		X	X		Ø	130	1044			