Department of Energy
Washington, DC 20585

August 6, 2018

Mr. Ray Brown, Chairman
Northern Arapaho Business Council
P.O. Box 217
Ft. Washakie, WY 82514

WM-00060

Subject: August 2018 Environmental Sampling at Riverton, Wyoming, Processing Site

Dear Mr. Brown:

The purpose of this letter is to inform you of the upcoming sampling event at Riverton, Wyoming. Enclosed are the map and tables specifying sample locations and analytes for monitoring at the Riverton processing site. Water quality data will be collected at this site as part of the routine environmental sampling currently scheduled to begin the week of August 27, 2018.

The following lists show the monitoring wells (with zone of completion), continuous multichannel tubing (CMT) wells, surface locations, and domestic wells scheduled to be sampled during this event.

Monitoring Wells*

705 Se	716 Sf	719 Se	722R Sf	729 Sf	732 Se	788 Sf	824 Sf
707 Sf	717 Se	720 Sf	723 Se	730 Se	784 Sf	789 Sf	826 Sf
710 Sf	718 Sf	721 Se	727 Se				

*NOTE: Se = Semi-confined sandstone; Sf = surficial

Surface Locations

747	794	810	811	812	822	823	879
749	796						

Domestic Wells

405	436	460	828	841	842	876	878
430							

CMT wells (each well has 4 ports)

0852	0854	0855	0856	0857	0858	0859	0860
0853							

Samples will be collected as directed in the *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites*. Access agreements are being reviewed and are expected to be complete by the beginning of fieldwork.

NMSS01
NMSS

Printed with soy ink on recycled paper

Please call me at (970) 248-6041 if you have any questions. Please send any correspondence to:

U.S. Department of Energy
Office of Legacy Management
2597 Legacy Way
Grand Junction, CO 81503

Sincerely,

William J. Frazier, P.E.
Site Manager

Enclosures

cc w/enclosures:
D. Googles, NABC
R. Ortiz, NABC
M. Quiver, NABC
H. Cane, Chemtrade Refinery
D. Orlando, NRC (WM-00060)
G. Phillips EPA
S. Campbell, Navarro (e)
File: RVT 0400.02 (rc grand junction)

Sampling Frequencies for Locations at Riverton, Wyoming

Location ID	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Monitoring Wells						
101					X	WL only; data logger
110					X	WL only
111					X	WL only
700					X	WL only
702					X	Data logger
705			X			
707			X			**Soil sample per IDW for Mo; Data logger**
709					X	WL only; data logger
710			X			
716			X			Data logger
717			X			
718			X			
719			X			
720			X			
721			X			
722R			X			Data logger
723			X			
724					X	WL only; data logger
725					X	WL only
726					X	WL only
727			X			
728					X	WL only
729			X			Data logger
730			X			
732			X			
733					X	WL only
734					X	WL only
736					X	WL only
784			X			
788			X			
789			X			Data logger
824			X			Data logger
826			X			Data logger
849					X	only
852-1			X			Multi-level well
852-2			X			Multi-level well
852-3			X			Multi-level well
852-4			X			Multi-level well
853-1			X			Multi-level well
853-2			X			Multi-level well
853-3			X			Multi-level well
853-4			X			Multi-level well

Sampling Frequencies for Locations at Riverton, Wyoming

Location ID	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Monitoring Wells						
854-1			X			Multi-level well
854-2			X			Multi-level well
854-3			X			Multi-level well
854-4			X			Multi-level well
855-1			X			Multi-level well
855-2			X			Multi-level well
855-3			X			Multi-level well
855-4			X			Multi-level well
856-1			X			Multi-level well
856-2			X			Multi-level well
856-3			X			Multi-level well
856-4			X			Multi-level well
857-1			X			Multi-level well
857-2			X			Multi-level well
857-3			X			Multi-level well
857-4			X			Multi-level well
858-1			X			Multi-level well
858-2			X			Multi-level well
858-3			X			Multi-level well
858-4			X			Multi-level well
859-1			X			Multi-level well
859-2			X			Multi-level well
859-3			X			Multi-level well
859-4			X			Multi-level well
860-1			X			Multi-level well
860-2			X			Multi-level well
860-3			X			Multi-level well
860-4			X			Multi-level well
Surface Locations						
747			X			
749			X			
794			X			
796			X			
810			X			Gravel pit
811			X			Little Wind River
812			X			Little Wind River
822			X			
823			X			
879			X			

Sampling Frequencies for Locations at Riverton, Wyoming

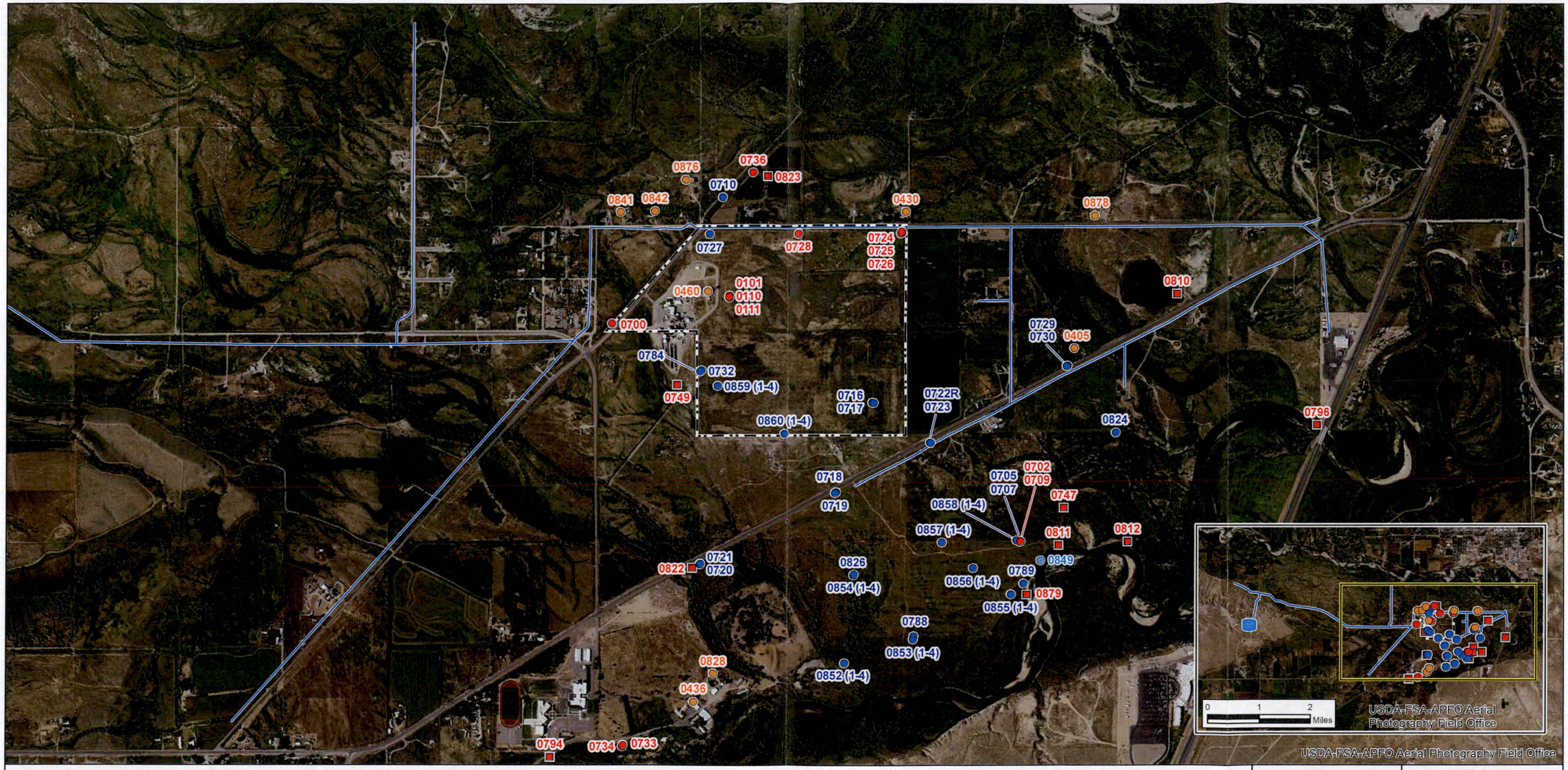
Location ID	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Domestic Wells						
405			X			921 Rendezvous Road
430			X			204 Goes in Lodge Road
436			X			33 St Stephens Road
460			X			140 Goes in Lodge Road
828			X			33 St Stephens Road
841			X			22 Whitetail Dr
842			X			14 Whitetail Dr
876			X			160 Goes in Lodge Road
878			X			250 Goes in Lodge Road

Annual groundwater and surface water sampling conducted in August. Alternate Water Supply System sampling not scheduled for FY18.

Constituent Sampling Breakdown

Site	Riverton						
Analyte	Groundwater	Surface Water	Domestic Wells	AWSS	Required Detection Limit (mg/L)	Analytical Method	Line Item Code
Approx. No. Samples/yr	56	9	9	26			
Field Measurements							
Total Alkalinity	X	X	X				
Dissolved Oxygen	X	X	X	X			
Redox Potentia	X	X	X	X			
Total Chlorine				X			
pH	X	X	X	X			
Specific Conductance	X	X	X	X			
Turbidity	X	X	X	X			
Temperature	X	X	X	X			
Laboratory Measurements							
Aluminum							
Ammonia as N (NH3-N)							
Calcium	X	X	X		5	SW-846 6010	LMM-01
Chloride	X	X	X		0.5	SW-846 9056	MIS-A-039
Chromium							
Gross Alpha							
Gross Beta							
Iron							
Lead							
Magnesium	X	X	X		5	SW-846 6010	LMM-01
Manganese	X	X	X		0.005	SW-846 6010	LMM-01
Molybdenum	X	X	X		0.003	SW-846 6020	LMM-02
Nickel							
Nickel-63							
Nitrate + Nitrite as N(NO3+NO2)-N							
Potassium	X	X	X		1	SW-846 6010	LMM-01
Radium-226				X	1 pCi/L	Gas Proportional Counter	GPC-A-018
Radium-228				X	1 pCi/L	Gas Proportional Counter	GPC-A-020
Selenium							
Silica							
Sodium	X	X	X		1	SW-846 6010	LMM-01
Strontium							
Sulfate	X	X	X		0.5	SW-846 9056	MIS-A-044
Sulfide							
Total Organic Carbon							
Uranium	X	X	X	X	0.0001	SW-846 6020	LMM-02
Vanadium							
Zinc							
Total No. of Analytes	9	9	9	3			

Note: All analyte samples are considered unfiltered unless stated otherwise. All private well samples are to be unfiltered. The total number of analytes does not include field parameters.



LEGEND

- MONITORING WELL TO BE SAMPLED
- DOMESTIC WELL TO BE SAMPLED
- MONITORING WELL - WATER LEVEL ONLY
- SURFACE LOCATION TO BE SAMPLED
- STILLING WELL - WATER LEVEL ONLY
- ALTERNATE WATER SUPPLY LINE
- ALTERNATE WATER SUPPLY STORAGE TANK
- SITE BOUNDARY

N

0 0.25 0.5 Miles

U.S. DEPARTMENT OF ENERGY
OFFICE OF LEGACY MANAGEMENT

Work Performed by
Navarro Research & Engineering, Inc.
Under DOE Contract Number DE-LM0000421

Planned Sample Locations
Riverton, WY, Processing Site
August 2018

DATE PREPARED: July 10, 2018

FILE NAME: S2021700-11X17

\\LM\ess\EnvProjects\EBM\LTS\111\0001\16\005\S20217\S2021700-11X17.mxd smithw 07/10/2018 12:40:39 PM