

Appendix B

Field Data Sheets

New Mexico Environment Department
 Ground Water Quality Bureau
 Mining Environmental Compliance
 1190 S Saint Francis Dr, Santa Fe, NM 87502

**GROUNDWATER SAMPLE
 COLLECTION FORM**

Page 1 of 1

Well ID: B5Agn-6

Site Name: _____ Date: 10/4/23
 Project No: DOE Offsite Field Crew: Rheinbottom Hays
 Location: _____

PURGING INFORMATION

Method: Volume Purge (complete [a] to [g]) Low Flow (complete [a] to [c]) No Purge (complete [a] to [c])
 Screen Interval (ft btoc): _____
 Pump Placement (ft btoc): _____

[a] Depth to Water (ft btoc): _____ [d] Unit Casing Volume* (gal/LF): _____
 [b] Total Well Depth (ft btoc): _____ [e] Static Water Column [e] = [b] - [a] (ft): _____
 [c] Casing Diameter (in): _____ [f] Casing Water Volume [f] = [d] * [e] (gal): _____
 [g] Three Purge Volumes [g] = 3 * [f] (gal): _____

EQUIPMENT

YSI # _____ Pump # _____ Bailer Size: _____ Tubing: _____ Other: _____

FIELD PARAMETERS

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	Temperature (°C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
Well started @ 9:00 AM									
10:04				14.1	7.68		6.65		0.81
10:09				14.2	7.67		6.60		0.85
10:14				14.1	7.64		6.47		0.89
10:19				14.0	7.65		6.55		0.83

OBSERVATIONS

Color: — Turbidity: — Notes: _____
 Odor: — Purged Dry (Y/N): —

ANALYSIS (mark applicable analysis)

Analyte	Analysis	Bottles	Preservative	Filtered	Lab
Gen Chem Tot + Diss Metals					Evoteks

SAMPLE COLLECTION

Sample ID: B-50 Dup ID: _____
 Sample Collection Date & Time: 10/4/23 10:29A MS/MSD: _____
 Signature: _____ Equip. Blank: _____

Casing Diameter (in)	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
*Unit Casing Volume (gal/LF)	0.04	0.09	0.16	0.37	0.65	1.00	1.55	2.60

B-50

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**GROUNDWATER SAMPLE
 COLLECTION FORM**
 Well ID: BSAG 9

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Site Name: _____ Date: 10/4/23
 Project No: DOE Offsite Field Crew: Rhenbottom
 Location: Hays

PURGING INFORMATION

Method: Volume Purge (complete [a] to [g])
 Low Flow (complete [a] to [c])
 No Purge (complete [a] to [c])

Screen Interval (ft btoc): _____
 Pump Placement (ft btoc): _____
 [d] Unit Casing Volume* (gal LF): _____
 [a] Depth to Water (ft btoc): _____
 [e] Static Water Column [e] = [b] - [a] (ft): _____
 [b] Total Well Depth (ft btoc): _____
 [f] Casing Water Volume [f] = [d] * [e] (gal): _____
 [c] Casing Diameter (in): _____
 [g] Three Purge Volumes [g] = 3 * [f] (gal): _____

EQUIPMENT

YSI # _____ Pump # _____ Bailer Size: _____ Tubing: _____ Other: _____

FIELD PARAMETERS

Time	Depth to Water (ft)	Flow (gpm)	Total Volume (gal)	Temperature (°C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
<u>Uncertain</u>	<u>N</u>	<u>operation</u>	<u>Purged approx 20 gallons</u>						
<u>2:53</u>				<u>19.5</u>	<u>8.47</u>	<u>4.60</u>			<u>2.71</u>
<u>3:00</u>				<u>18.8</u>	<u>8.50</u>	<u>3.15</u>			<u>13.67</u>
<u>3:06</u>				<u>18.6</u>	<u>8.52</u>	<u>3.50</u>			<u>4.60</u>

OBSERVATIONS

Color: ✓ Turbidity: yes Notes: Bubbles
 Odor: yes Purged Dry (Y/N): N

ANALYSIS (mark applicable analysis)

Analyte	Analysis	Bottles	Preservative	Filtered	Lab
	<u>Gen Chem</u>				<u>Eurofins</u>
	<u>Tot Metals</u>				
	<u>Diss Metals</u>				

SAMPLE COLLECTION

Sample ID: BSAG 9 Dup ID: _____
 Sample Collection Date & Time: 10/4/23 2:15 PM MS/MSD: _____
 Signature: AM M Equip. Blank: _____

Casing Diameter (in)	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
*Unit Casing Volume (gal/LF)	0.04	0.09	0.16	0.37	0.65	1.00	1.55	2.60

Site Name: _____ Date: 10/2/23
 Project No: DOE Offsite Field Crew: A. Rencabotton
 Location: Bladern 5 T-40 City of Grants Mike + Jesse

PURGING INFORMATION

Method: Volume Purge (complete [a] to [g]) Low Flow (complete [a] to [c]) No Purge (complete [a] to [c])

Screen Interval (ft btoc): _____
 Pump Placement (ft btoc): _____

[a] Depth to Water (ft btoc): _____ [d] Unit Casing Volume* (gal/LF): _____
 [b] Total Well Depth (ft btoc): _____ [e] Static Water Column [e] = [b] - [a] (ft): _____
 [c] Casing Diameter (in): _____ [f] Casing Water Volume [f] = [d] * [e] (gal): _____
 [g] Three Purge Volumes [g] = 3 * [f] (gal): _____

EQUIPMENT

YSI # U-team Pump # _____ Bailer Size: _____ Tubing: _____ Other: _____

FIELD PARAMETERS

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	Temperature (°C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
<u>Pump running since 7AM - no purge, field param stabilize</u>									
<u>10:03</u>				<u>16.4</u>	<u>7.66</u>		<u>4.59</u>		<u>0.97</u>
<u>10:08</u>				<u>16.5</u>	<u>7.41</u>		<u>4.55</u>		<u>1.04</u>
<u>10:16</u>				<u>16.3</u>	<u>7.51</u>	<u>46</u>	<u>4.72</u>		<u>1.02</u>
<u>10:20</u>				<u>16.4</u>	<u>7.38</u>		<u>4.43</u>		<u>0.97</u>

OBSERVATIONS

Color: clear Turbidity: low Notes: _____
 Odor: none Purged Dry (Y/N): N

ANALYSIS (mark applicable analysis)

Analyte	Analysis	Bottles	Preservative	Filtered	Lab
T Metals		<u>1 - 500 ml</u>	<u>X</u>	<u>X</u>	<u>Envofins</u>
D Metals		<u>1 - 500 ml VP</u>	<u>X</u>	<u>X</u>	
Hk		<u>1 - 250</u>	<u>-</u>	<u>-</u>	
chl sulf		<u>1 - 250</u>	<u>-</u>	<u>-</u>	
nitrate		<u>1 - glass v</u>	<u>X</u>	<u>-</u>	
TDs		<u>1 - liter</u>	<u>-</u>	<u>-</u>	

SAMPLE COLLECTION

Sample ID: BSAG-11 Dup ID: _____
 Sample Collection Date & Time: 10/2/23 10:30 MS/MSD: _____
 Signature: [Signature] Equip. Blank: _____

Casing Diameter (in)	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
*Unit Casing Volume (gal/LF)	0.04	0.09	0.16	0.37	0.65	1.00	1.55	2.60

Grants Well #1 arrive 9:30A

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**GROUNDWATER SAMPLE
COLLECTION FORM**

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Well ID: BSAG-15

Site Name:

Date:

10/3/23

Project No:

Field Crew:

A. Frenchbottom
Dore Hays

Location:

Field to East of well

PURGING INFORMATION

- Method:
- Volume Purge (complete [a] to [g])
 - Low Flow (complete [a] to [c])
 - No Purge (complete [a] to [c])

Screen Interval (ft btoc):

Pump Placement (ft btoc):

[d] Unit Casing Volume* (gal/LF):

[a] Depth to Water (ft btoc):

[e] Static Water Column [e] = [b] - [a] (ft):

[b] Total Well Depth (ft btoc):

[f] Casing Water Volume [f] = [d] * [e] (gal):

[c] Casing Diameter (in):

[g] Three Purge Volumes [g] = 3 * [f] (gal):

EQUIPMENT

YSI #

Pump #

Bailer Size:

Tubing:

Other:

FIELD PARAMETERS

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	Temperature (°C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
<u>Pump turned on @ 1:10, Flood rising to field</u>									
<u>1:21</u>				<u>15.9</u>	<u>7.19</u>		<u>2.78</u>		<u>4.27</u>
<u>1:26</u>				<u>15.8</u>	<u>7.20</u>		<u>3.06</u>		<u>3.99</u>
<u>1:31</u>				<u>15.7</u>	<u>7.17</u>		<u>2.00</u>		<u>3.61</u>
<u>1:36</u>				<u>15.7</u>	<u>7.7</u>		<u>2.19</u>		<u>3.5</u>

OBSERVATIONS

Color: — Turbidity: 4 Notes:
Odor: — Purged Dry (Y/N): N

ANALYSIS (mark applicable analysis)

Analyte	Analysis	Bottles	Preservative	Filtered	Lab
<u>Gen Chem</u>	<u>Metals Tot + Disx</u>				<u>Eurofins</u>

SAMPLE COLLECTION

Sample ID: BSAG-15 Dup ID: _____
 Sample Collection Date & Time: 10/3/23 1:45 PM MS/MSD: _____
 Signature: [Signature] Equip. Blank: [Signature]

Casing Diameter (in)	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
*Unit Casing Volume (gal/LF)	0.04	0.09	0.16	0.37	0.65	1.00	1.55	2.60

Murray Acres Irrig - arrive 1:00

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Mining Environmental Compliance

GROUNDWATER SAMPLE COLLECTION FORM

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1190 S Saint Francis Dr, Santa Fe, NM 87502 Well ID: BSA216

Site Name: DOB Offsite Date: 10/4/23
Project No: _____ Field Crew: Ranchbottom Hays
Location: _____

PURGING INFORMATION

Method: Volume Purge (complete [a] to [g]) Low Flow (complete [a] to [c]) No Purge (complete [a] to [c])

Screen Interval (ft btoc): _____
Pump Placement (ft btoc): _____

[d] Unit Casing Volume* (gal/LF): _____
[e] Static Water Column [e] = [b] - [a] (ft): _____
[f] Casing Water Volume [f] = [d] * [e] (gal): _____
[g] Three Purge Volumes [g] = 3 * [f] (gal): _____

EQUIPMENT

YSI # _____ Pump # _____ Bailer Size: _____ Tubing: _____ Other: _____

FIELD PARAMETERS

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	Temperature (°C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
<u>Well started @</u>		<u>3.5</u>							
<u>11:16</u>				<u>14.5</u>	<u>7.88</u>		<u>6.35</u>		<u>0.73</u>
<u>11:19</u>				<u>14.3</u>	<u>7.82</u>		<u>6.64</u>		<u>0.51</u>
<u>11:24</u>				<u>14.3</u>	<u>7.80</u>		<u>6.60</u>		<u>0.71</u>

OBSERVATIONS

Color: Turbidity: Notes: _____
Odor: Purged Dry (Y/N):

ANALYSIS (mark applicable analysis)

Analyte	Analysis	Bottles	Preservative	Filtered	Lab
<u>Gen Chem</u>	<u>TOC + Diss Metals</u>				<u>E values</u>

SAMPLE COLLECTION

Sample ID: _____ Dup ID: _____
Sample Collection Date & Time: 10/4/23 11:30 MS/MSD: _____
Signature: [Signature] Equip. Blank: _____

Casing Diameter (in)	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
*Unit Casing Volume (gal/LF)	0.04	0.09	0.16	0.37	0.65	1.00	1.55	2.60

B23 Arrive @ 11:00

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**GROUNDWATER SAMPLE
 COLLECTION FORM**

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Well ID: BSAG 23

Site Name: THE Offsite
 Project No: _____
 Location: _____

Date: 10/5/23
 Field Crew: Rubio/Maurer

PURGING INFORMATION

- Method: Volume Purge (complete [a] to [g])
 Low Flow (complete [a] to [c])
 No Purge (complete [a] to [c])

Screen Interval (ft btoc): _____
 Pump Placement (ft btoc): _____

[a] Depth to Water (ft btoc): _____
 [b] Total Well Depth (ft btoc): _____
 [c] Casing Diameter (in): _____

[d] Unit Casing Volume* (gal/LF): _____
 [e] Static Water Column [e] = [b] - [a] (ft): _____
 [f] Casing Water Volume [f] = [d] * [e] (gal): _____
 [g] Three Purge Volumes [g] = 3 * [f] (gal): _____

EQUIPMENT

YSI # _____ Pump # _____ Bailer Size: _____ Tubing: _____ Other: _____

FIELD PARAMETERS

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	Temperature (°C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
<u>House well always on, purged 5 gallons</u>									
<u>11:16</u>				<u>15.4</u>	<u>7.62</u>		<u>5.53</u>		<u>0.61</u>
<u>11:20</u>				<u>15.1</u>	<u>7.66</u>		<u>5.80</u>		<u>0.74</u>
<u>11:24</u>				<u>14.9</u>	<u>7.64</u>		<u>6.03</u>		<u>0.77</u>

OBSERVATIONS

Color: none Turbidity: low Notes: _____
 Odor: none Purged Dry (Y/N): (Y)

ANALYSIS (mark applicable analysis)

Analyte	Analysis	Bottles	Preservative	Filtered	Lab
<u>Gen Chem</u>	<u>Metals - tot & diss</u>				<u>Eurofins</u>

SAMPLE COLLECTION

Sample ID: BSAG 23 Dup ID: _____
 Sample Collection Date & Time: 10/5/23 11:30 AM MS/MSD: _____
 Signature: [Signature] Equip. Blank: _____

Casing Diameter (in)	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
*Unit Casing Volume (gal/LF)	0.04	0.09	0.16	0.37	0.65	1.00	1.55	2.60

Arrive onsite 11:00 AM

New Mexico Environment Department
Ground Water Quality Bureau
Mining Environmental Compliance

GROUNDWATER SAMPLE COLLECTION FORM

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1190 S Saint Francis Dr, Santa Fe, NM 87502

Well ID: BSAG-26

Site Name: DOE Offsite Date: 10/4/23
Project No: _____ Field Crew: Rueda/Jan
Location: Half

PURGING INFORMATION

Method: Volume Purge (complete [a] to [g]) Low Flow (complete [a] to [c]) No Purge (complete [a] to [c])

Screen Interval (ft btoc): _____
Pump Placement (ft btoc): _____

[d] Unit Casing Volume* (gal/LF): _____
[a] Depth to Water (ft btoc): _____
[e] Static Water Column [e] = [b] - [a] (ft): _____
[b] Total Well Depth (ft btoc): _____
[f] Casing Water Volume [f] = [d] * [e] (gal): _____
[c] Casing Diameter (in): _____
[g] Three Purge Volumes [g] = 3 * [f] (gal): _____

EQUIPMENT

YSI # _____ Pump # _____ Bailer Size: _____ Tubing: _____ Other: _____

FIELD PARAMETERS

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	Temperature (°C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
Well Running - Purged			3 Gallons						
3:55				17.9	7.65		6.27		1.96
4:04				18.2	7.62		6.37		1.85

OBSERVATIONS

Color: Turbidity: Notes: new pump 2022
Odor: Purged Dry (Y/N):

ANALYSIS (mark applicable analysis)

Analyte	Analysis	Bottles	Preservative	Filtered	Lab
Gen Chem	Tot + Diss Metals				Envofas

SAMPLE COLLECTION

Sample ID: BSAG 26 Dup ID: _____
Sample Collection Date & Time: 10/4/23 4:15 MS/MSD: _____
Signature: _____ Equip. Blank: _____

Casing Diameter (in)	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
*Unit Casing Volume (gal/LF)	0.04	0.09	0.16	0.37	0.65	1.00	1.55	2.60

Time 3:45

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**GROUNDWATER SAMPLE
 COLLECTION FORM**

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Well ID: **BSAG-27**

Site Name: **DOE Offsite**
 Project No: _____
 Location: _____

Date: **10/3/23**
 Field Crew: **Rhonda Ann Hays**

PURGING INFORMATION

- Method:
- Volume Purge (complete [a] to [g])
 - Low Flow (complete [a] to [c])
 - No Purge (complete [a] to [c])

Screen Interval (ft btoc): _____
 Pump Placement (ft btoc): _____

[a] Depth to Water (ft btoc): _____
 [b] Total Well Depth (ft btoc): _____
 [c] Casing Diameter (in): _____

[d] Unit Casing Volume* (gal/LF): _____
 [e] Static Water Column [e] = [b] - [a] (ft): _____
 [f] Casing Water Volume [f] = [d] * [e] (gal): _____
 [g] Three Purge Volumes [g] = 3 * [f] (gal): _____

EQUIPMENT

YSI # _____ Pump # _____ Bailer Size: _____ Tubing: _____ Other: _____

FIELD PARAMETERS

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	Temperature (°C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
Well started @		2:00							
2:35				15.2	7.47		5.27		0.55
2:39				15.1	7.51		5.51		0.80
2:43				15.4	7.52		5.60		0.89

OBSERVATIONS

Color: **—** Turbidity: **—** Notes: _____
 Odor: **—** Purged Dry (Y/N): **✓**

ANALYSIS (mark applicable analysis)

Analyte	Analysis	Bottles	Preservative	Filtered	Lab
	Gen Chem				Envirofins
	Tot or Diss Metals				

SAMPLE COLLECTION

Sample ID: **BSAG-27** Dup ID: _____
 Sample Collection Date & Time: **10/3/23 2:50 PM** MS/MSD: _____
 Signature: **[Signature]** Equip. Blank: **✓**

Casing Diameter (in)	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0
*Unit Casing Volume (gal/LF)	0.04	0.09	0.16	0.37	0.65	1.00	1.55	2.60

Appendix A

Photographs

Field Activities Summary Report – 2023 Sampling Event
Groundwater Sampling of Private and Public Supply Wells
Bluewater & Homestake Disposal Areas, Cibola County, New Mexico



Photographs 1a, 1b, 1c – BSAG-11 sample location. Municipal supply well.



Photographs 2a, 2b, 2c – BSAG-12 sample location. Municipal supply well.



Photographs 3a, 3b, 3c – BSAG-15 sample location. Irrigation supply well.

Field Activities Summary Report – 2023 Sampling Event
Groundwater Sampling of Private and Public Supply Wells
Bluewater & Homestake Disposal Areas, Cibola County, New Mexico



Photographs 4a, 4b – BSAG-28 & BSAG-29 sample locations. Community supply wells.



Photograph 5 – BSAG-6 sample location. Community supply well.



Photograph 6 – BSAG-10 sample location. Community supply well.



Photograph 7 – BSAG-16 sample location. Community well.

Field Activities Summary Report – 2023 Sampling Event
Groundwater Sampling of Private and Public Supply Wells
Bluewater & Homestake Disposal Areas, Cibola County, New Mexico



Photographs 8a, 8b – BSAG-9 sample location. Private supply well.



Photographs 9a, 9b, 9c – BSAG-26 sample location. Private supply well.