

Figures

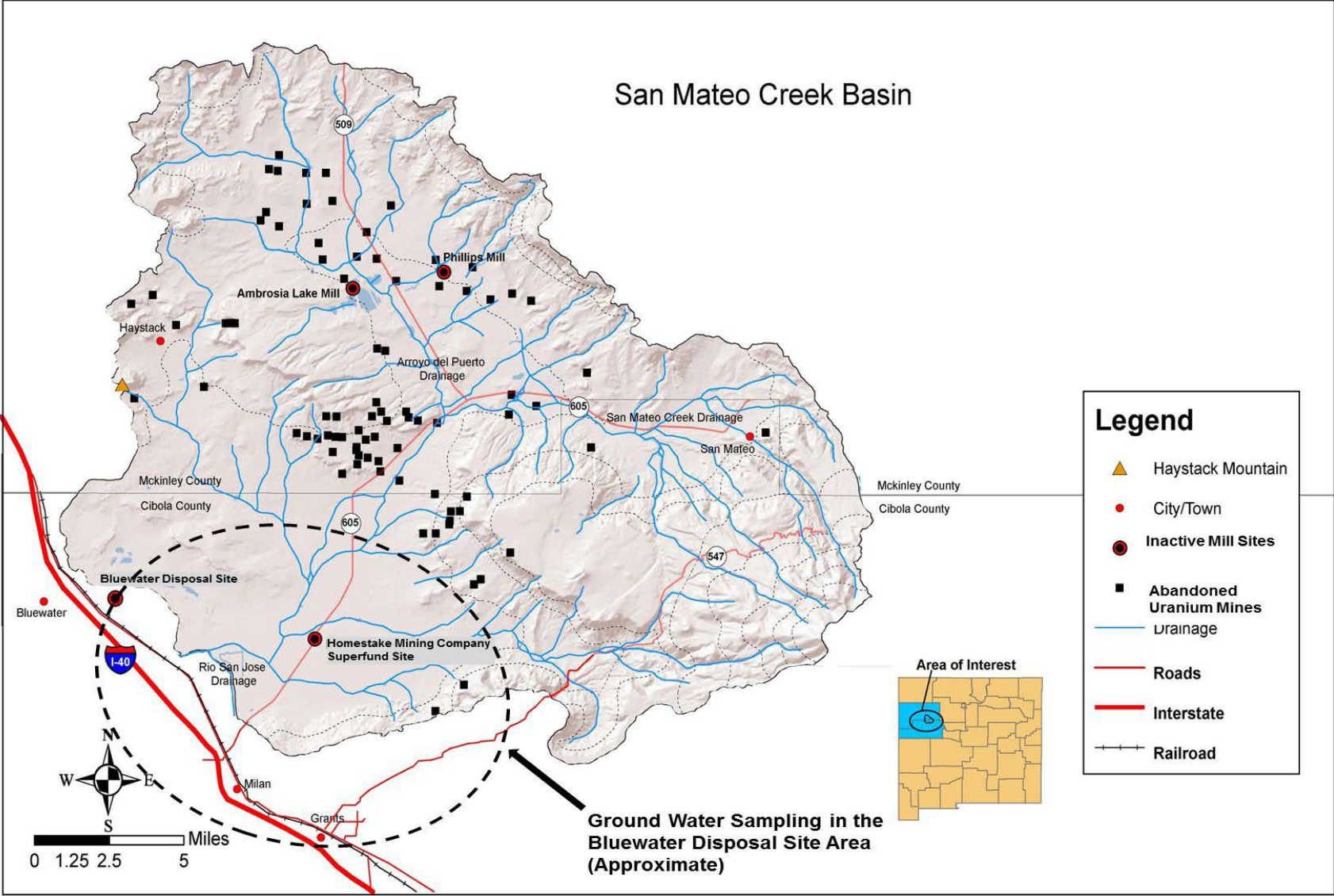


Figure 1: Groundwater sampling area in the San Mateo Creek Basin.

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

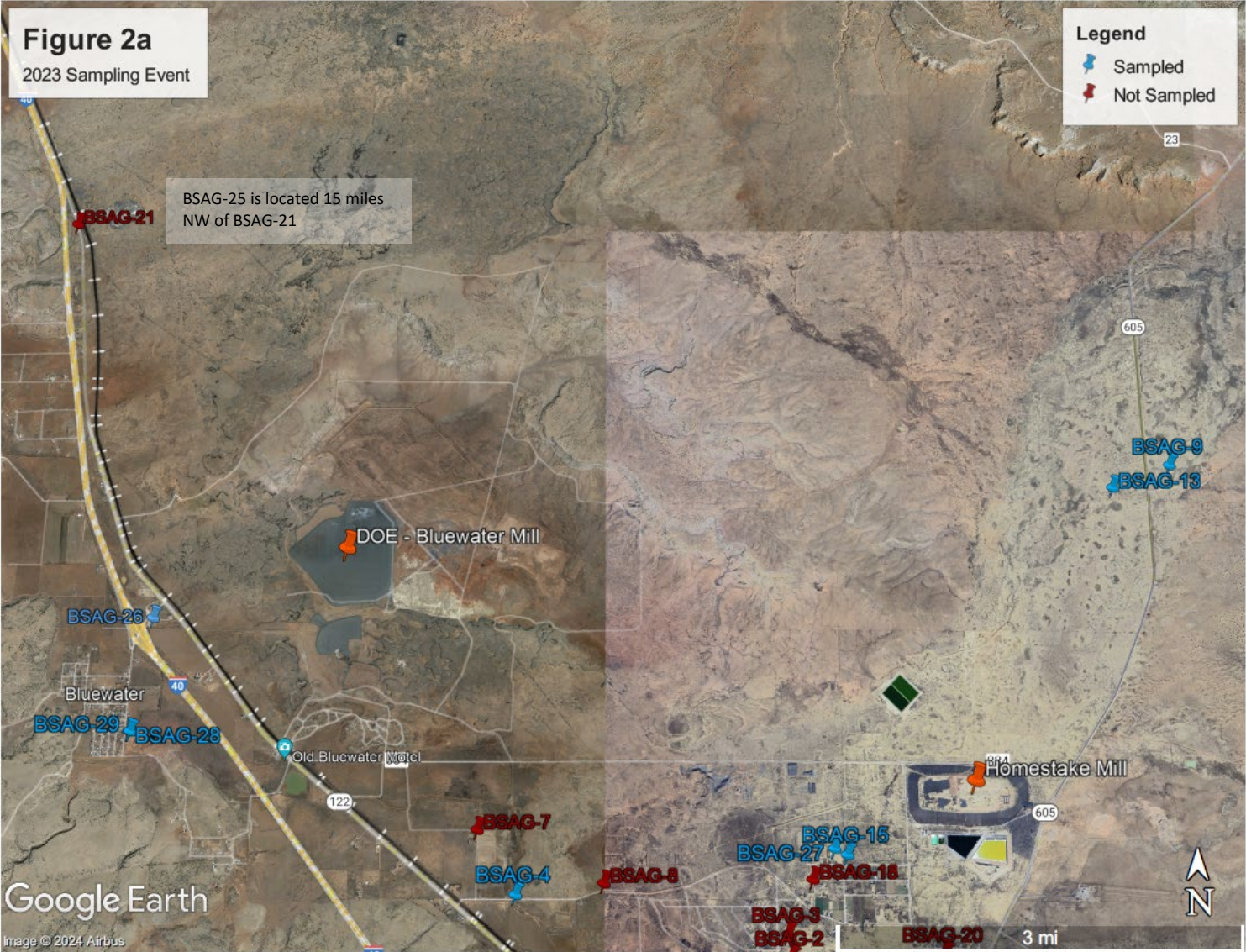


Figure 2a: 2023 Wells sampled and not sampled in the San Mateo Creek Basin – northern section.



Figure 2b: 2023 Wells sampled and not sampled in the San Mateo Creek Basin – southern section.

Tables

Table 1: Summary of Groundwater Sampling Locations

Sample ID	Sample Date	Latitude (NAD83)	Longitude (NAD83)	OSE Permit No.	Well Depth (feet)
BSAG-1	not sampled	35.225595	107.888629	B-510	498
BSAG-2	not sampled	35.227344	107.888396	B-700	467
BSAG-3	not sampled	35.229749	107.888762	B-622	unknown
BSAG-4	10/05/23	35.231764	107.923891	B-196	253
BSAG-5	not sampled	35.217964	107.912450	B-49	188
BSAG-6	10/04/23	35.213868	107.912236	B-50	175
BSAG-7	not sampled	35.239059	107.929378	B-518	250
BSAG-8	not sampled	35.233409	107.912280	B-50A	330
BSAG-9	10/04/23	35.279850	107.831953	B-1458	702
BSAG-10 ¹	10/04/23	35.189415	107.900400	B-35	155
BSAG-11	10/02/23	35.156922	107.875421	B-38	300
BSAG-12	10/02/23	35.163151	107.878231	B-40	367
BSAG-13 ²	10/04/23	35.276702	107.841187	B-1771	635
BSAG-14	not sampled	35.205098	107.872348	B-1802	500
BSAG-15	10/03/23	35.236126	107.879942	B-5R	530
BSAG-16	10/04/23	35.174727	107.893024	B-23	214
BSAG-17	not sampled	35.217856	107.896037	B-48	312
BSAG-18	not sampled	35.233540	107.88495	B-805	unknown
BSAG-19	not sampled	35.224343	107.860840	no record	unknown
BSAG-20	not sampled	35.225901	107.867834	B-831	unknown
BSAG-21	not sampled	35.3088889	107.9894444	B-1617	560
BSAG-22	10/5/23	35.2066667	107.9152778	B-1337	140
BSAG-23	10/5/23	35.2055556	107.9127778	no record	unknown
BSAG-24 ³	10/5/23	35.2052778	107.9088889	B-617	175
BSAG-25	not sampled	35.409319	108.247648	B-386	1210
BSAG-26	10/4/23	35.261872	107.914318	no record	500
BSAG-27	10/3/23	35.236794	107.881676	no record	unknown
BSAG-28	10/3/23	35.249354	107.976468	B-1662 P2	439
BSAG-29	10/3/23	35.249167	107.976468	B-1662 P1	345

Notes:

1 BSAG-10 has a field duplicate sample B-350.

2 BSAG-13 had 2nd sample collected at the kitchen faucet BSAG-13H

3 BSAG-24 has a field duplicate sample BSAG-240

Table 2: Groundwater Sampling Field Parameters and Laboratory Analytical Methods

Field Parameters	General Chemistry major ions	Metals unfiltered-total & filtered - dissolved
<u>Analytical Methods</u> YSI-556	<u>Analytical Methods</u> EPA 160.1, EPA 310.1, EPA 353.2 Rev. 2.0, EPA 300.0 Rev. 2.1	<u>Analytical Methods</u> EPA 200.7 Rev. 4.4, EPA 200.8 Rev. 5.4
<u>Analytes</u> dissolved oxygen, pH temperature, turbidity	<u>Analytes</u> Alkalinity, Bicarbonate, Carbonate, Chloride, Nitrate+Nitrite, Sulfate, Total Dissolved Solids	<u>Analytes</u> Arsenic, Calcium, Magnesium, Molybdenum, Potassium, Selenium, Silicon, Sodium, Uranium

Field Activity Summary Report - 2023 Sampling Event
 Groundwater Sampling Program of Private and Public Supply Wells
 Bluewater Homestake Disposal Areas, Cibola County, New Mexico

Analyte	Units	BSAG-4	BSAG-6	BSG-9	BSAG-10	BSAG-11	BSAG-12	BSAG-13	BSAG-15
General Chemistry		Oct-23	Oct-23	Oct-23	Oct-23	Oct-23	Oct-23	Oct-23	Oct-23
Alkalinity, Total (as CaCO ₃)	mg/L	270	270	290	220	340	250	310	340
Bicarbonate (as CaCO ₃)	mg/L	270	270	290	220	340	250	220	340
Carbonate (as CaCO ₃)	mg/L	10	10	10	10	10	10	85	10
Chloride	mg/L	44	64	530	20	91	35	32	150
Nitrate+Nitrite (as Nitrogen)	mg/L	3.4	3.3	0.1	2.8	1.2	2.2	0.36	4.0
Sulfate	mg/L	350	460	710	210	430	280	460	600
Total Dissolved Solids	mg/L	880	1100	2200	550	1100	730	1100	1500
Total Metals (mg/L)									
Arsenic	mg/L	0.00067	0.0026	0.005	0.0021	0.0027	0.0033	0.0027	0.00096
Calcium	mg/L	160	170	13	98	150	110	4.0	200
Magnesium	mg/L	48	47	1.1	32	48	35	0.45	63
Molybdenum	mg/L	0.0012	0.0010	0.035	0.0018	0.0010	0.0015	0.011	0.0007
Potassium	mg/L	4.1	4.9	2.1	3.4	6.4	4.3	1.7	8.6
Selenium	mg/L	0.0047	0.011	0.005	0.0084	0.0050	0.0067	0.022	0.0074
Silicon	mg/L	8.1	9.5	5.1	9.0	8.4	8.0	4.8	6.9
Sodium	mg/L	68	100	850	45	140	72	400	190
Uranium	mg/L	0.016	0.014	0.00084	0.0038	0.0065	0.0047	0.033	0.020
Dissolved Metals (mg/L)									
Arsenic - D	mg/L	0.00061	0.0026	0.005	0.002	0.0028	0.0031	0.0029	0.0010
Calcium - D	mg/L	160	160	13	93	150	120	4.0	180
Magnesium - D	mg/L	47	43	1.1	30	47	36	0.45	57
Molybdenum - D	mg/L	0.00098	0.001	0.038	0.0018	0.0023	0.0016	0.011	0.0009
Potassium - D	mg/L	4.3	4.2	1.4	2.8	6.7	4.5	1.1	8.1
Selenium - D	mg/L	0.0045	0.012	0.005	0.0091	0.0055	0.0076	0.022	0.0074
Silicon - D	mg/L	8.0	8.9	5.0	8.4	8.3	8.2	4.6	6.2
Sodium - D	mg/L	65	88	740	39	130	66	350	160
Uranium - D	mg/L	0.017	0.012	0.00089	0.0036	0.0069	0.005	0.029	0.021

- > NMWQCC Standard of 250 mg/l
- > NMWQCC Standard of 600 mg/l
- > NMWQCC Standard of 1,000 mg/l
- NA - not analyzed, error on lab paperwork

Field Activity Summary Report - 2023 Sampling Event
 Groundwater Sampling Program of Private and Public Supply Wells
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Analyte	Units	BSAG-16	BSAG-22	BSAG-23	BSAG-24	BSAG-26	BSAG-27	BSAG-28	BSAG-29
General Chemistry		Oct-23	Oct-23	Oct-23	Oct-23	Oct-23	Oct-23	Oct-23	Oct-23
Alkalinity, Total (as CaCO ₃)	mg/L	220	220	240	250	380	360	340	350
Bicarbonate (as CaCO ₃)	mg/L	220	220	240	250	380	360	340	350
Carbonate (as CaCO ₃)	mg/L	10	10	10	10	10	10	10	10
Chloride	mg/L	21	31	54	69	120	120	81	92
Nitrate+Nitrite (as Nitrogen)	mg/L	2.7	2.3	2.9	3.0	1.6	1.3	3.6	3.0
Sulfate	mg/L	150	300	360	410	540	480	470	520
Total Dissolved Solids	mg/L	470	700	860	1000	1400	1300	1200	1300
Total Metals (mg/L)									
Arsenic	mg/L	0.0021	0.0015	0.0022	0.0014	0.0023	0.005	0.012	0.0071
Calcium	mg/L	82	130	150	170	180	150	190	200
Magnesium	mg/L	31	39	42	45	58	41	51	54
Molybdenum	mg/L	0.0026	0.0017	0.0011	0.0012	0.00060	0.00057	0.0013	0.00092
Potassium	mg/L	3.1	3.2	3.8	4.4	6.2	6.6	6.8	7.0
Selenium	mg/L	0.0067	0.0097	0.013	0.018	0.0032	0.0093	0.005	0.0042
Silicon	mg/L	8.5	8.8	9.5	10	5.0	11	7.5	7.1
Sodium	mg/L	36	61	87	110	200	200	110	120
Uranium	mg/L	0.0045	0.0057	0.011	0.012	0.010	0.018	0.0076	0.0079
Dissolved Metals (mg/L)									
Arsenic - D	mg/L	0.0022	0.0017	0.0022	0.0014	0.002	0.005	NA	0.0084
Calcium - D	mg/L	78	120	140	170	180	150	210	190
Magnesium - D	mg/L	29	39	41	46	54	42	56	52
Molybdenum - D	mg/L	0.0027	0.0017	0.0011	0.0012	0.00078	0.00057	NA	0.00087
Potassium - D	mg/L	2.5	3.4	4.0	4.6	5.5	7.2	7.1	6.8
Selenium - D	mg/L	0.0067	0.0098	0.013	0.018	0.0036	0.011	NA	0.0042
Silicon - D	mg/L	7.9	8.8	9.4	10	4.7	11	8.0	6.9
Sodium - D	mg/L	31	60	82	110	170	180	120	110
Uranium - D	mg/L	0.004	0.0063	0.011	0.012	0.0097	0.020	NA	0.0088

NA - not analyzed, error on lab paperwork
 > NMWQCC Standard of 250 mg/l
 > NMWQCC Standard of 600 mg/l
 > NMWQCC Standard of 1,000 mg/l