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A. Burns

MX SITING INVESTIGATION
WATER RESOURCES PROGRAM
SUMMARY FOR DRAFT ENVIRONMENTAL IMPACT STATEMENT

VOLUME II

FUGRO NATIONAL
CONSULTING ENGINEERS AND GEOLOGISTS

MX SITING INVESTIGATION
WATER RESOURCES PROGRAM
SUMMARY FOR DRAFT ENVIRONMENTAL IMPACT STATEMENT

VOLUME II

Prepared for:

U.S. Department of the Air Force
Ballistic Missile Office (BMO)
Norton Air Force Base, California 92409

Prepared by:

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15 May 1980

IN

APPENDIX A1.0

Potentiometric Level Measurements

APPENDIX A

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WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
9N/42E-31ad	6100	93	-48	17	6083	3,5
9N/43E-9ad	5775	513	-62	140	5635	3
9N/43E-9bbb	5800	513	8-79	120	5680	1
9N/43E-9db	5880	601	8-79	150	5730	1
8N/39E-13b1	5680	42	-50	25	5655	5
8N/39E-13b2	5680	36	-50	15	5655	5
8N/42E-16	--	100	-40	38	--	7
8N/42E-16	--	126	-40	44	--	3,7
8N/42E-18	6400	55	-49	35	6365	3,7
8N/43E-15d	6475	--	pre-1917	40	6435	3,7
8N/43E-21a	6220	90	-13	85	6135	3
8N/43E-23a	6580	--	pre-1917	35	6545	3,7
8N/44E-20c	7110	60	-13	6	7104	7
7N/40E-27cb	5115	300	-64	96	5019	5,6
7N/40E-27dc	5115	300	-68	86	5029	5,6
7N/40E-28ad	5130	560	-64	100	5030	5,6

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY79.
2 Fugro Verification Study, FY79.
3 Robinson, Thordarson, and Beetem, 1967.
4 Rush, 1968.
5 Rush and Schroer, 1970.
6 U.S. Geological Survey, 1979.
7 U.S. Geological Survey, 1971.
8 Nevada State Engineers Office, 1979.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE. GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
BIG SMOKY VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-1
1 OF 6

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
7N/40E-28cb	5140	300	-64	97	5043	5,6
7N/40E-30a	5140	133	-49	78	5062	5,6
7N/40E-35b	5100	420	-58	90	5010	5,6,7
7N/40E-35ccc	5100	1420	-68	90	5010	5,6
7N/42E-15	--	240	-49	180	--	4,7
7N/42E-17c7	5400	84	-49	12	5388	6
7N/42E-17c11	5430	14	-13	4	5426	4,6
7N/42E-18	--	36	-49	flowing	--	3
7N/42E-18	--	100	-49	flowing	--	3
7N/42E-18dc	5380	30	8-79	15	5365	2
7N/42E-33aa	5617	240	-49	180	5437	6,8
6N/40E-12ca	5080	415	-62	97	4983	7
6N/40E-12da	5090	282	-61	90	5600	7
6N/40E-13aa1	5080	480	-65	78	5002	5
6N/40E-13aa2	5080	387	-62	80	5000	5,7
6N/40E-13adc	5070	350	8-79	85	4985	2

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY79.
2 Fugro Verification Study, FY79.
3 Robinson, Thordarson, and Beetem, 1967.
4 Rush, 1968.
5 Rush and Schroer, 1970.
6 U.S. Geological Survey, 1979.
7 U.S. Geological Survey, 1971.
8 Nevada State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
BIG SMOKY VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-1
2 OF 6

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
6N/40E-13add	5070	--	8-79	92	4978	1
6N/40E-24aa	5060	350	-63	87	4973	5
6N/40E-34cbb	5000	--	-79	178	4822	2
6N/40E-34cbd	--	40	-79	dry	--	2
6N/40E-34cd	4990	--	-79	171	4819	2
6N/40E-34db	4990	--	-79	169	4821	2
6N/40E-36c	4999	--	-79	96	4903	2
6N/41E-7bac1	5110	200	-63	76	5034	5,7
6N/41E-7bac2	5110	350	-70	102	5008	8
6N/41E-7caa	5105	244	8-79	91	5014	1
6N/41E-16cca	5102	230	8-79	134	4968	1
6N/41E-18ca1	5080	400	-63	92	4988	3,5,7
6N/41E-18cb1	5080	191	-62	78	5002	3,5,7
6N/41E-18cb2	5076	200	-68	83	4993	5,6
6N/43E-6cc	6006	--	--	280	5726	5
5N/40E-3ba	4980	--	-79	172	4808	2

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY79.
2 Fugro Verification Study, FY79.
3 Robinson, Thordarson, and Beetem, 1967.
4 Rush, 1968.
5 Rush and Schroer, 1970.
6 U.S. Geological Survey, 1979.
7 U.S. Geological Survey, 1971.
8 Nevada State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
BIG SMOKY VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-1
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FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
5N/40E-3bc	5003	--	-79	186	4817	2
5N/40E-3ca1	4975	--	-79	153	4822	2
5N/40E-3ca2	--	155	-79	dry	--	2
5N/40E-3cb	4979	--	-79	170	4809	2
5N/40E-3cc	4972	--	-79	156	4816	2
5N/40E-4d	5000	--	-79	204	4796	2
5N/40E-10b	--	52	-79	dry	--	2
5N/40E-33d	4882	700	-13	90	4792	5
5N/41E-2aab	5380	--	8-79	>500	<4880	2
5N/41E-5bd1	5002	135	8-79	130	4872	8
5N/41E-5bd2	5002	180	-65	125	4877	5,7
5N/41E-6a	5020	135	-13	124	4896	3,7
4N/41E-16db	4858	98	-68	55	4803	5,6
4N/41E-30db	4830	47	-13	43	4787	5,6
3N/40E-2c	4815	61	--	40	4775	7
3N/40E-2cd	4817	280	-68	50	4767	5,6

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY79.
2 Fugro Verification Study, FY79.
3 Robinson, Thordarson, and Beetem, 1967.
4 Rush, 1968.
5 Rush and Schroer, 1970.
6 U.S. Geological Survey, 1979.
7 U.S. Geological Survey, 1971.
8 Nevada State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
BIG SMOKY VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-1
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FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
3N/40E-2dcc	4810	--	8-79	40	4770	1
3N/40E-11bb	4815	61	8-79	42	4773	8
3N/41E-10cb	5000	210	-13	202	4798	3,5,6
3N/41E-19ab	4773	--	-69	8	4765	6
3N/41E-21cd	5070	310	-49	240	4830	5,6
3N/41E-26-1	--	179	-64	42	--	8
3N/41E-26-2	5233	312	-64	42	5191	8
3N/41E-28	--	310	-50	240	--	1,7
3N/42E-4	--	330	-50	310	--	8
3N/42E-4	--	30	-50	20	--	7,8
3N/42E-9	--	179	-63	42	--	8
3N/42E-11	6130	330	-49	132	5998	3,7
3N/42E-11	--	35	-49	20	--	8
3N/42E-21	5639	312	-63	9	5630	7,8
3N/42E-32	5550	179	-63	20	5530	7
1N/41E-26a	4875	--	-13	61	4814	4

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY79.
2 Fugro Verification Study, FY79.
3 Robinson, Thordarson, and Beetem, 1967.
4 Rush, 1968.
5 Rush and Schroer, 1970.
6 U.S. Geological Survey, 1979.
7 U.S. Geological Survey, 1971.
8 Nevada State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
BIG SMOKY VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-1
5 OF 6

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
1N/41E-26d	4901	>400	--	61	4840	7
1N/42E-33dad	4919	160	8-79	137	4782	8
1N/42E-34c	4940	160	--	148	4792	4
1S/41E-4c	4825	72	-65	46	4779	4
1S/41E-18a	4825	72	-65	48	4777	4
1S/42E-3	4930	--	--	197	4733	7
1S/42E-10aa	4990	310	-50	210	4780	4,7

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY79.
2 Fugro Verification Study, FY79.
3 Robinson, Thordarson, and Beetem, 1967.
4 Rush, 1968.
5 Rush and Schroer, 1970.
6 U.S. Geological Survey, 1979.
7 U.S. Geological Survey, 1971.
8 Nevada State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
BIG SMOKY VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-1
6 OF 6

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
10N/63E-25ca	6620	20	3-80	<20	>6600	1
9N/64E-6bdd	6530	--	3-80	flowing	>6530	1
9N/64E-27ddc	6400	315	3-80	239	6161	1
8N/64E-4abd	6235	--	3-80	141	6094	1
8N/64E-15bcb	6159	375	3-80	280	5879	1
8N/64E-30cdb	6080	--	3-80	322	5758	1
7N/63E-15cad	6020	385	3-80	233	5787	1
7N/64E-19dda	6000	265	3-80	215	5785	1

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
CAVE VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-2

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
6S/63E-12ada	4600	1195	3-80	860	3740	1
7S/64E-12dd	5800	90	-	63	5737	2
7S/64E-19	4750	265	-	245	4505	2

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Nevada State Engineers Office, 1979.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
DELAMAR VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-3

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
5N/64E-14a	5650	240	-	dry	<5410	3
3N/64E-2b	5520	380	-	76	5444	4,5
3N/64E-20bac	5067	380	-60	317	4750	3
3N/64E-23c	5165	1000	-79	772	4393	2
3N/65E-21dba	5451	51	-62	45	5406	3,4,5
2N/65E-6b1	5075	376	-	dry	<4699	3
1N/64E-24a1	4700	515	1-59	398	4302	3
1N/64E-34ca	4649	515	1-59	428	4221	5
1N/65E-2aac	5660	12	-	10	5650	3
3S/64E-12bbd	4645	1300	1-80	383	4262	1

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Air Force Weapons Laboratory, 1979.
3 Eakin, 1963.
4 U.S. Geological Survey, 1979.
5 Nevada State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
DRY LAKE VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-4

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-9-11)1dbb	4395	210	11-55	86	4309	2
(C-9-11)16add	4338	200	9-54	30	4308	2
(C-9-11)19acc	4340	--	1-80	33	4307	1
(C-9-11)32dda	4480	202	4-52	170	4310	2
(C-9-12)1dac	4316	210	9-54	14	4302	2
(C-9-12)25cba	4458	307	10-69	160	4298	2
(C-9-12)9aaa	4309	407	7-35	15	4294	2
(C-10-9)8ccc	4407	130	-57	80	4327	2
(C-10-10)2dcc	4425	235	10-73	98	4327	2
(C-10-10)2ddc	4430	375	8-75	109	4321	2
(C-10-10)23cad	4514	—	1-80	175	4339	1
(C-10-10)31bbb	4524	551	3-35	190	4334	2
(C-11-11)12aba	4602	306	3-65	274	4328	2
(C-11-11)12adc	4602	306	11-49	270	4332	3
(C-13-9)10ddc	4925	--	6-56	>387	<4538	3
(C-14-9)20cbb	4733	—	1-80	180	4553	1

* Salt Lake Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Stephens and Sumsion, 1978.
3 Utah State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
DUGWAY VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-5

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-11-12)4ccd	4471	538	8-76	154	4317	3
(C-11-12)15bba	4580	330	10-62	255	4325	3
(C-11-13)1acb	4330	--	1-80	10	4320	2
(C-11-14)23dcc	4330	35	11-79	20	4310	1
(C-12-12)7bcd	4600	210	7-56	183	4417	4
(C-12-12)31cbc	4550	--	11-79	>370	<4180	1
(C-12-12)31cca	4565	--	4-77	227	4338	3
(C-12-12)31ccb	4540	232	2-46	203	4337	3
(C-12-13)12caa	4510	210	7-56	183	4327	3
(C-12-13)14ddb	4410	--	1-80	76	4334	2
(C-12-13)15dcc	4344	--	1-80	12	4332	2
(C-12-14)23bcc	4345	--	8-76	10	4335	3
(C-13-12)5cbd	4756	615	3-62	427	4329	3
(C-13-13)10cda	4433	200	1-80	106	4327	2
(C-13-13)14dbc	4530	200	1-80	>195	<4335	2
(C-13-13)18bcd	4420	--	11-79	79	4341	1

* Salt Lake Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 80.
3 Bolke and Sumsion, 1978.
4 Utah State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
FISH SPRINGS FLAT, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-6
1 OF 2

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-13-13)18cba	4420	200	1-80	79	4341	2
(C-14-12)4cbc	4811	509	3-35	370	4441	3
(C-14-13)7daa	4596	200	-	>200	<4396	2
(C-14-13)9cba	4623	266	4-66	226	4397	3

* Salt Lake Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 80.
3 Bolke and Sumsion, 1978.
4 Utah State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
FISH SPRINGS FLAT, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-6
2 OF 2

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
14N/69E-24bdd	5650	70	8-79	31.9	5618	2
14N/69E-24dab	5600	200	8-79	12.3	5588	2
14N/70E-31c	5620	65	10-50	25	5595	3
13N/69E-11abc	6400	108	4-74	85	6315	3
13N/69E-11cbc	6550	29	4-58	26.5	6524	3
13N/70E-4ba	5350	470	6-50	flowing	>5350	3
13N/70E-4cdc	5300	100	8-79	28.5	5272	2
13N/70E-4d	5300	153	5-52	44	5256	3
13N/70E-9ac	5300	82	--	28	5272	3
13N/70E-9bd	5350	88	7-53	18	5332	3
13N/70E-9bdd	5300	90	8-79	15.7	5284	2
13N/70E-9c	5300	84	7-52	51	5249	3
13N/70E-10aba	5200	1084	8-79	151.3	5049	2
13N/70E-10cad	5250	--	8-79	flowing	>5250	2
13N/70E-14cca	5200	415	8-79	flowing	>5200	2
13N/70E-16c	5435	154	5-53	39	5396	3

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Verification Study, FY 80.
2 Fugro Water Resources Study, FY 79.
3 Hood and Rush, 1965.

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POTENTIOMETRIC LEVEL MEASUREMENTS
HAMLIN VALLEY, NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-7
1 OF 5

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
13N/70E-16cc	5470	107	3-74	53	5417	3
13N/70E-16db	5360	143	8-48	50	5310	3
13N/70E-35adb	5330	158	12-47	99.6	5230	3
13N/71E-19bcd	5160	82	10-47	25	5135	3
11N/70E-35ad	5595	101	1-80	78	5517	1
11N/70E-36bd	5520	101	1-80	67	5453	1
10N/70E-11d	5490	100	7-53	9	5481	3
10N/70E-12b	5470	80	7-53	14	5456	3
10N/70E-25c	5525	70	8-53	7	5518	3
91/2N/70E-33ac	5650	101	1-80	78	5572	1
9N/69E-15	6095	--	1-80	105	5990	1
9N/70E-14cab	5620	--	7-79	27.1	5593	2
9N/70E-34dcd	5690	217	8-79	110.3	5580	2
9N/71E-6a	5720	--	7-79	198.8	5521	2
8N/69E-9a	5760	100	1-80	dry	<5660	1
8N/69E-15bbd	5750	110	7-79	74.8	5675	2

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Verification Study, FY 80.
2 Fugro Water Resources Study, FY 79.
3 Hood and Rush, 1965

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
HAMLIN VALLEY, NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-7
2 OF 5

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
8N/69E-36aaa	5770	225	8-79	144.6	5626	2
8N/70E-6aba	5670	164	7-79	87.5	5583	2
8N/70E-21aad	5710	153	8-79	122.0	5588	2
6N/70E-10c	6040	--	1-80	60	5980	1
6N/70E-18b	6270	--	1-80	144	6126	1
6N/70E-28	6240	--	1-80	120	6120	1

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Verification Study, FY 80.
2 Fugro Water Resources Study, FY 79.
3 Hood and Rush, 1965

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POTENTIOMETRIC LEVEL MEASUREMENTS
HAMLIN VALLEY, NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-7
3 OF 5

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-21-19)16ccb	5130	100	1-80	92	5038	1
(C-21-19)22bcc	5140	100	1-80	93	5047	1
(C-21-19)31dcc	5225	175	-	24	5201	3
(C-22-19)6bac	5250	167	11-50	49	5201	3
(C-22-19)6bca	5250	111	8-79	37.3	5213	2
(C-22-20)1aac	5270	125	5-44	60	5210	3
(C-22-20)1aad	5270	137	6-48	63	5207	3
(C-22-20)1daa	5270	115	7-39	75	5195	3
(C-22-20)24dd	5561	101	1-80	dry	<5460	1
(C-23-19)7cd	5481	101	1-80	dry	<5380	1
(C-23-19)8d	5400	40	5-76	3	5397	3
(C-23-19)9cdb	5405	270	11-36	15.4	5390	3
(C-23-19)10cb	5490	100	1-80	68	5422	1
(C-23-19)13aab	5930	540	-	476	5454	3
(C-23-19)20bca	5410	40	11-50	15.2	5395	3
(C-23-19)20bdb	5410	--	8-79	18.6	5391	2

* Salt Lake Baseline and Meridian

References:

1 Fugro Verification Study, FY 80.
2 Fugro Water Resources Study, FY 79.
3 Hood and Rush, 1965

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
HAMLIN VALLEY, NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-7
4 OF 5

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-23-19)20dbc	5415	300	8-79	16.9	5398	2
(C-23-19)22b	5485	50	1-80	49	5437	1
(C-23-19)24dcc	5780	472	6-39	455	5325	3
(C-23-19)28cb	5450	100	1-80	40	5410	1
(C-24-19)3dba	5558	172	10-58	138	5420	3
(C-30-19)21cab	6325	215	-	170	6155	3
(C-32-19)10bba	6630	--	-62	7	6623	3
(C-32-19)21abal	6740	38	-62	17	6723	3
(C-32-19)21aba2	6740	61	-62	58	6632	3
(C-32-19)22ddb	6640	407	12-64	335	6305	3
(C-32-19)25aaa	6600	401	-62	dry	<6199	3
(C-32-19)27acc	6650	430	9-72	415	6235	3

* Salt Lake Baseline and Meridian

References:

1 Fugro Verification Study, FY 80.
2 Fugro Water Resources Study, FY 79.
3 Hood and Rush, 1965

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
HAMLIN VALLEY, NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-7
5 OF 5

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
18N/55E-31cab	5940	43	3-80	36.8	5903	1,3
17N/53E-29bcd	6192	--	3-80	156.2	6036	1,2
17N/54E-2dd	5960	76	3-80	422.2	5918	2,3
17N/54E-8bd	6200	322	9-66	293	5907	2
17N/54E-21ab	6005	210	7-77	90	5915	4
17N/54E-21bb	6020	285	5-76	95	5919	4
17N/54E-21cb	5990	260	3-77	74	5916	2,4
17N/54E-21db	5985	250	7-77	65	5920	4
17N/54E-22aba	5980	--	3-80	53.7	5926	1,2
17N/54E-29cab	5987	61	3-80	52.5	5934	1,2
17N/55E-18acc	5978	--	3-80	76.7	5901	1
17N/55E-18add	6010	--	3-80	101.7	5908	1
17N/55E-18add	6022	--	3-80	118.9	5903	1
16N/53E-10dca	6034	--	3-80	6.3	6028	1
16N/53E-30bdb	6119	186	3-80	78.0	6041	1,2
16N/54E-15bac	6017	85	3-80	DRY	<5932	1,2

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Rush and Everett, 1966.
3 U.S. Geological Survey, 1978.
4 Marion, 1980.

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POTENTIOMETRIC LEVEL MEASUREMENTS
LITTLE SMOKY VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-8
1 OF 2

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
16N/54E-20bac	6023	125	-56	77	5946	2
15N/52E-13bad	6400	376	3-80	345.8	6054	1,2
15N/52E-35cda	6435	500	-63	400	6035	2
15N/53E-23acd	6140	350	-65	186	5954	2
15N/53E-28abc	6180	242	-56	220	5960	2
15N/53E-32dbd	6231	--	3-80	220.9	6010	1
15N/54E-6dcb	6100	164	3-80	160.5	5940	1,2
15N/54E-11add	6360	45	3-80	10	6350	1,2,3
14N/51E-24caa	6995	--	3-80	10	6985	1
11N/53E-6cda	6535	--	3-80	499.9	6035	1,2

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Rush and Everett, 1966.
3 U.S. Geological Survey, 1978.
4 Marion, 1980.

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POTENTIOMETRIC LEVEL MEASUREMENTS
LITTLE SMOKY VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-8
2 OF 2

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-25-16)18bdd	5085	340	-55	300	4785	2
(C-25-17)33dab	5263	628	3-34	466.5	4796.5	2
(C-26-16)19bbd	5205	394	11-79	340.3	4864.7	1
(C-26-17)17dac	5355	801	-55	717	4638	2
(C-28-16)29cbb	6245	120	12-72	50	6195	3
(C-28-17)1caa	5500	510	1-80	DRY	<4990	3
(C-28-17)22cca	5780	2006	8-78	375	5405	3
(C-29-17)11dda	5960	1305	6-78	365	5595	3
(C-30-17)27aaa	6550	648	-36	DRY	<5902	2

* Salt Lake Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 79.
2 Stephens, 1976.
3 Utah State Engineers Office, 1979.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
PINE VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-9

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
16N/57E-20	7500	350	8-67	215	7285	3
15N/55E-21	6300	271	9-57	DRY	<6019	3
15N/57E-17dcd	6088	221	10-71	206	5882	3
15N/57E-32ba	6040	280	6-69	171	5869	3
14N/55E-12bdb	5930	400	9-57	DRY	<6730	3
14N/56E-19bcb	5820	226	4-72	205	5615	3
13N/56E-19dcb	5575	85	-	81	4994	3
13N/56E-29cba	5600	103	10-71	26	5574	3
12N/55E-25cd	5672	289	10-71	206	5466	3
12N/56E-34cba	5200	202	10-59	7	5197	3
12N/57E-9bcb	5500	356	10-71	272	5228	3
11N/55E-21	6680	17	11-56	10	6670	3
11N/56E-2adc	5095	250	10-71	39	5056	3
11N/57E-9cd	5072	354	1-72	172	4900	3
10N/57E-12dda	5050	401	10-71	178	4882	3
10N/57-13cba	4990	370	9-67	160	4830	3

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 79.
3 Van Denburgh and Rush, 1974.
4 Nevada State Engineers Office, 1979.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
RAILROAD VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-10
1 OF 6

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
10N/57-14aaa	4990	526	4-72	146	4844	3
10N/57-15aaa	4945	200	10-71	83	4862	3
10N/57E-15add	4940	251	4-70	80	4860	3
10N/57E-23aaa	4960	358	10-71	157	4803	3
10N/57E-23	4950	305	8-69	155	4795	4
10N/57E-27aaa	4900	200	10-71	70	4830	3
10N/57E-30c	4830	15	9-53	12	4818	3
10N/57E-32bbb	4827	348	2-80	flowing	>4827	1
9N/56E-14bda	4779	101	10-71	1	4778	3
9N/56E-34cac	4731	700	6-35	flowing	>4731	3
9N/56E-35cda	4732	550	6-35	flowing	>4732	3
9N/57E-1abb	4930	200	10-71	131	4799	3
9N/57E-2bab	4867	92	10-71	70	4797	3
9N/57E-6aa	4807	52	11-56	8	4799	4
9N/57E-6dab	4802	141	10-71	10	4792	3
9N/57E-12	4880	220	-65	100	4780	3

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 79.
3 Van Denburgh and Rush, 1974.
4 Nevada State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
RAILROAD VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-10
2 OF 6

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
9N/57E-20cab	476	219	10-71	flowing	>4760	3
9N/57E-34	4750	50	1-56	4	4746	3
9N/57E-35aac	4759	79	4-72	3	4756	3
9N/57E-35bad1	4753	60	12-53	15	4738	3
9N/57E-35bad2	4753	200	12-53	2	4751	3
9N/57E-35bad3	4755	220±	3-72	flowing	>4755	3
9N/58E-18bca	4838	--	10-71	53	4785	3
8N/55E-24	4714	600	1934-35	flowing	>4714	3
8N/56E-2cba	4732	430	2-80	flowing	>4732	1
8N/56E-2dac	4734	1204	2-80	flowing	>4734	1
8N/56E-3acb	4731	550	2-80	flowing	>4731	1
8N/56E-26bad	4709	8	10-71	7	4702	3
8N/57E-4	4738	635	5-35	flowing	>4738	3
8N/57E-7ca	4727	55	10-71	2	4725	3
8N/57E-14	4760	185	8-51	flowing	>4760	3
8N/57E-14d	4760	—	-	flowing	>4760	4

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 79.
3 Van Denburgh and Rush, 1974.
4 Nevada State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
RAILROAD VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-10
3 OF 6

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
8N/57E-22cdc	4730	43	10-71	3	4727	3
8N/57E-27	4757	220	7-51	12	4745	3
7N/55E-28ca	4727	46	8-55	Flowing	>4727	3
7N/56E-1	4709	770	2-34	Flowing	>4709	3
7N/56E-3ccb1	4707	795	-34	Flowing	>4707	3
7N/56E-3ccb2	4707	29	7-69	5	4702	3
7N/57E-4dbb	4720	60	8-61	0	4720	3
7N/57E-5caa	4711	85	11-61	10	4701	3
7N/57E-21	4759	150	6-69	1	4758	3
6N/56E-5acc	4712	745	2-80	Flowing	>4714	1
6N/56E-14ab	4730	—	-	Flowing	>4730	4
6N/56E-14dcd	4735	285	5-62	Flowing	>4735	3
6N/56E-27acb	4768	98	10-71	Flowing	>4768	3
6N/56E-27bd	4760	100	4-62	Flowing	>4760	4
6N/57E-6dda	4780	150	11-67	22	4758	3
5N/54E-24dcb	4825	100	10-71	54.8	4770	3
5N/54E-34dab	4848	110	11-67	82	4766	3

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 79.
3 Van Denburgh and Rush, 1974.
4 Nevada State Engineers Office, 1979.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
RAILROAD VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-10
4 OF 8

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
5N/55E-15	4785	70	-60	19	4715	3
5N/55E-27cbb	4795	250	6-64	31	4764	3
5N/55E-27cbc	4795	145	5-65	31	4764	3
5N/55E-28dbb	4799	219	2-64	38	4761	3
5N/55E-33bbc	4805	249	4-65	33	4772	3
5N/55E-33ddd	4875	396	8-67	55	4820	3
5N/55E-34aba	4797	75	10-71	30	4767	3
5N/55E-34cdd	4810	398	10-71	67	4743	3
5N/55E-34ddd	4820	395	10-65	69	4751	3
5N/55E-35bdd	4875	320	10-55	55	4820	3
5N/55E-35cdd	4871	320	3-64	76	4795	3
5N/55E-36dad1	2887	105	6-51	50	4837	3
5N/55E-36dad2	4887	179	10-71	61	4826	3
4N/54E-18dc	4911	138	-67	150	4773	3
4N/55E-19da	5000±	255	10-71	214	4786±	3
3N/53E-20da	4965	161	-79	dry	<4804	2

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 79.
3 Van Denburgh and Rush, 1974.
4 Nevada State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
RAILROAD VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-10
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FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
3N/53E-35bac	4942	204	3-72	165	4777	3
3N/54E-5bc	5040	325	11-48	265	4775	3
2N/53E-23cbc	4892	180	3-72	113	4779	3
1N/53E-3dac	4851	120	3-72	69	4782	3
1N/53E-7adc	4856	136	3-72	78	4778	3
1N/53E-27bba	4788	200	3-72	172	4616	3
1N/53E-31dcc	5024	272	11-51	205	4819	3
1N/53E-32db	5004	292	5-57	225	4779	3
1S/511/2E-23bc	5930	370	10-59	335	5595	3
1S/53E-28bda	5205	465	3-72	415	4790	3

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 79.
3 Van Denburgh and Rush, 1974.
4 Nevada State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
RAILROAD VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-10
8 OF 6

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-9-8)18bac	4820	75	-43	50	4770	5
(C-9-9)13aba	4600	520	-45	150	4450	5
(C-10-9)4bda	4525	555	3-80	190	4335	1
(C-10-9)8ccc	4407	130	3-80	87	4320	1
(C-10-9)21acc	4427	127	3-80	53	4374	1
(C-11-8)7cdc	4550	--	-62	78	4472	5
(C-11-8)18dbc	4553	200	3-80	66	4487	1
(C-11-8)20bcc	4569	200	5-63	59	4510	4
(C-11-8)28cdc	4587	--	-65	48	4539	5
(C-11-8)33cc	4591	376	5-63	33	4558	3,5
(C-11-9)1bca	4530	448	3-80	80	4450	1
(C-11-9)1cdb	4528	445	5-63	72	4456	4
(C-11-9)12caa	4547	--	3-78	78	4469	3,4
(C-12-6)15bac	5110	335	3-80	206	4904	1
(C-12-7)3bcb	4897	270	8-48	235	4662	4,5
(C-12-8)4bac	4593	250	3-80	34	4559	1

* Salt Lake Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 79.
3 U.S. Geological Survey, 1979.
4 Mower and Feltis, 1968
5 Utah State Engineers Office, 1979.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
SEVIER DESERT, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-11
1 OF 6

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-12-8)9bba	4588	--	3-80	28	4560	1
(C-12-8)9dba	4585	--	3-80	23	4562	1
(C-12-8)28aac	4600	245	3-80	20	4580	1
(C-13-4)23bcd	5034	127	3-79	92	4942	3,4
(C-13-6)12bcb	4890	--	3-80	194	4696	1
(C-13-6)26bac	4753	175	3-79	70	4683	3,4
(C-13-7)9cbc	4638	210	3-80	39	4599	1
(C-14-5)35cdc	4788	305	3-79	104	4684	3,4
(C-14-6)9bab	4728	185	10-63	78	4650	4
(C-14-6)9dda	4709	143	10-63	57	4652	4
(C-14-6)21ccc	4719	185	10-63	68	4651	4
(C-14-7)1cab	4651	150	3-80	20	4631	1
(C-14-8)25ccc	4575	340	3-78	+3	4578	3,4
(C-14-9)19daa	4735	200	1-80	180	4555	2
(C-15-4)8cba	4709	203	3-79	20	4689	3,4
(C-15-4)18daa	4847	406	3-79	149	4698	3,4

* Salt Lake Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 79.
3 U.S. Geological Survey, 1979.
4 Mower and Feltis, 1968
5 Utah State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
SEVIER DESERT, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-11
2 OF 6

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-15-4)20caa	4834	1000	3-79	156	4678	3,4
(C-15-4)26dcc	4980	660	3-79	268	4712	3,4
(C-15-5)1ccb	4790	296	3-80	114	4676	1
(C-15-5)13bbc	4780	310	3-80	110	4670	1
(C-15-5)26baa	4688	860	3-79	17	4671	3,4
(C-15-5)29dda	4784	--	3-80	114	4670	1
(C-15-6)19cac	4671	235	3-80	42	4629	1
(C-15-6)31ccc	4626	195	3-79	0	4626	3,4
(C-15-7)17dad	4588	235	3-79	4	4584	3,4
(C-15-7)18dcc	4576	--	3-80	+2	4578	1
(C-15-7)21bcc	4580	--	3-78	4	4576	3,4
(C-15-7)31cdd	4577	176	3-79	5	4572	3,4
(C-15-7)33bac	4582	325	3-79	+1	4583	3,4
(C-15-8)23bba	4565	100	3-79	4	4561	3,4
(C-15-8)25aaa	4571	285	3-79	+3	4574	3,4
(C-15-8)34add	4572	160	3-79	5	4567	3,4

* Salt Lake Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 79.
3 U.S. Geological Survey, 1979.
4 Mower and Feltis, 1968
5 Utah State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
SEVIER DESERT, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-11
3 OF 8

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-15-10)1adc	4682	605	11-63	131	4551	4
(C-16-4)18bda	4818	375	3-79	82	4736	3,4
(C-16-4)19dbd	4907	344	3-79	168	4739	3,4
(C-16-4)30ddb	4978	637	3-79	240	4738	3,4
(C-16-4)31bca	4970	--	3-79	227	4743	3,4
(C-16-5)18caa	4672	935	3-79	22	4650	3,4
(C-16-5)19cbd	4671	830	3-79	29	4642	3,4
(C-16-6)7dbc	4620	104	3-79	1	4619	3,4
(C-16-7)1dcd	4615	132	3-79	+5	4620	3,4
(C-16-7)3aad	4590	225	3-76	0	4590	3,4
(C-16-7)4abb	4584	--	3-79	+3	4587	3,4
(C-16-7)6cbc	4581	--	11-74	8	4573	3,4
(C-16-7)8abb	4589	--	3-79	10	4579	3,4
(C-16-7)10bad	4595	919	3-79	+5	4600	3,4
(C-16-7)10cdc	4604	380	3-79	4	4600	3,4
(C-16-7)12ccd	4605	582	3-79	+3	4608	3,4

* Salt Lake Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 79.
3 U.S. Geological Survey, 1979.
4 Mower and Feltis, 1968
5 Utah State Engineers Office, 1979.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
SEVIER DESERT, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-11
4 OF 8

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-16-7)12dcd	4608	180	3-79	4	4604	3,4
(C-16-7)13ccc	4616	284	3-78	1	4615	3,4
(C-16-7)16dda	4612	413	3-78	11	4601	3,4
(C-16-7)28bbc	4610	170	3-78	22	4588	3,4
(C-16-7)35aca	4641	170	3-79	36	4605	3,4
(C-16-8)2cdd	4578	>300	3-79	9	4569	3,4
(C-16-8)8ddd	4573	--	3-78	8	4565	3,4
(C-16-8)12ddd	4587	954	3-79	17	4570	3,4
(C-16-8)15ddd	4583	290	3-79	16	4567	3,4
(C-16-8)18daa	4569	--	3-79	9	4560	3,4
(C-16-8)19ddd	4567	128	3-79	12	4555	3,4
(C-16-8)21bcb	4578	996	3-79	12	4566	3,4
(C-16-8)21ddd	4575	125	3-76	11	4564	3,4
(C-16-8)22bad	4577	626	3-79	15	4562	3,4
(C-16-8)24baa	4588	194	3-79	13	4575	3,4
(C-16-8)26bcb	4582	96	3-79	18	4564	3,4

* Salt Lake Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 79.
3 U.S. Geological Survey, 1979.
4 Mower and Feltis, 1968
5 Utah State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
SEVIER DESERT, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-11
5 OF 6

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-16-8)26bdb	4591	844	3-72	30	4561	3,4
(C-16-9)19acb	4744	200	1-80	176	4568	2
(C-16-9)29dcc	4610	--	7-48	70	4540	4,5
(C-16-10)1add	4808	200	1-80	>186	<4622	2

* Salt Lake Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 79.
3 U.S. Geological Survey, 1979.
4 Mower and Feltis, 1968
5 Utah State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
SEVIER DESERT, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-11
6 OF 6

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
19N/69E-15c	7180	28	7-53	9	7171	3
16N/69E-23bad	7000	190	11-72	100	6900	4
15N/70E-36ddd	5470	100	1-80	14	5456	1
14N/70E-17bba	5550	100	1-80	62	5488	1
14N/70E-20	5400	100	3-74	53	5300	4
14N/70E-27c	5300	130	7-51	86	5214	3
13N/71E-19b	5160	82	10-47	25	5125	3

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Verification Study, FY 80.
2 Fugro Water Resources Study, FY 79.
3 Hood and Rush, 1965
4 Nevada State Engineers Office, 1979.
5 Utah State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
SNAKE VALLEY, NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-12
1 OF 5

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-13-18)27adb	4720	102	8-51	2	4718	5
(C-13-18)27cdd	4730	107	9-58	12	4718	4
(C-13-18)28ccc	4820	36	-	31	4789	3
(C-13-18)28dcc	4780	104	9-58	8	4772	4
(C-13-18)33ccc	4800	147	6-51	6	4794	4
(C-13-18)34acc	4730	--	8-79	7	4723	2
(C-13-18)34bcc	4745	--	8-79	11	4734	2
(C-13-18)34ccc	4744	--	8-79	1	4743	2
(C-13-18)34cdd	4730	--	8-79	13	4717	2
(C-13-18)35c	4730	140	10-49	flowing	>4730	3
(C-14-18)3	4750	110	10-44	flowing	>4750	3
(C-14-18)4bdb	4780	70	11-50	13.3	4767	3
(C-14-18)5c	4820	70	-	60	4760	3
(C-14-18)5ccc	4840	--	8-79	56	4784	2
(C-14-18)8acc	4795	105	7-59	11	4784	4
(C-14-18)8ccc	4820	67	4-54	25	4795	4

* Salt Lake Baseline and Meridian

References:

1 Fugro Verification Study, FY 80.
2 Fugro Water Resources Study, FY 79.
3 Hood and Rush, 1965
4 Nevada State Engineers office, 1979.
5 Utah State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
SNAKE VALLEY, NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-12
3 OF 5

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-17-19)4add	4880	640	10-64	0.1	4880	3
(C-17-19)4bbd	4910	101	1-80	78	4832	1
(C-17-19)5cc	5050	100	1-80	41	4999	1
(C-17-19)21	4900	--	-	flowing	>4900	3
(C-18-18)8a	4850	--	-	flowing	>4850	3
(C-18-18)16abb	4870	--	-	flowing	>4870	3
(C-18-18)31adb	4970	101	1-80	78	4892	1
(C-18-18)32cda	5061	100	1-80	51	5010	1
(C-18-19)20bd	5045	100	1-80	41	5004	1
(C-18-19)21cbc	4950	--	8-79	24	4926	2
(C-18-19)28bbb	4970	640	-53	flowing	>4970	3
(C-18-19)28bcc	4960	600	4-69	18	4942	4
(C-19-18)5abb	4890	100	1-80	73	4827	1
(C-19-19)14acd	4925	77	7-61	11	4914	4
(C-19-19)14dcc	4930	59	4-66	17.6	4912	4
(C-19-19)14dcd	4930	65	8-57	12	4918	4

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Verification Study, FY 80.
2 Fugro Water Resources Study, FY 79.
3 Hood and Rush, 1965
4 Nevada State Engineers Office, 1979.
5 Utah State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
SNAKE VALLEY, NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-12
4 OF 5

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-19-19)23bdc	4930	110	10-65	13	4917	4
(C-19-19)26bdd	4950	200	3-78	12	4938	4
(C-19-19)29abd	4980	--	4-67	15	4965	4
(C-19-19)34aba	4955	--	8-79	15	4940	2
(C-19-19)34abd	4970	--	8-79	14	4956	2
(C-19-19)34daa	4965	--	8-79	15	4950	2
(C-19-19)34ddb	4970	--	8-79	15	4955	2
(C-19-19)35acc	4970	40	12-57	16	4954	4
(C-19-19)35cac	4980	--	8-79	20	4960	2
(C-19-19)35cdd	4980	--	8-79	17	4963	2
(C-19-19)36cad	5030	100	1-80	80	4950	1
(C-20-17)9c	5490	760	-	600	4890	3
(C-20-18)21bbd	5100	100	1-80	93	5010	1
(C-20-18)32aab	5015	100	1-80	36	4979	1
(C-20-19)6cbc	5100	180	8-46	flowing	>5100	4
(C-20-19)7aab	5050	--	11-48	flowing	>5050	3

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Verification Study, FY 80.
2 Fugro Water Resources Study, FY 79.
3 Hood and Rush, 1965
4 Nevada State Engineers Office, 1979.
5 Utah State Engineers Office, 1979.

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POTENTIOMETRIC LEVEL MEASUREMENTS
SNAKE VALLEY, NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-12
5 OF 5

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-11-15)26aa	4365	200	11-79	25	4340	1
(C-11-16)6dab	4318	155	-72	2	4316	3
(C-11-16)24dd	4340	201	11-79	6	4334	1
(C-13-15)23ccb	5290	570	2-35	520	4770	3
(C-13-15)35cdd	4800	200	-72	27	4773	3
(C-15-14)22ddd	4545	300	-72	148	4397	3
(C-15-15)30ca	4522	185	11-79	147	4375	1
(C-15-16)11abd	4853	521	1-35	440	4413	3
(C-151/2-15) 33acd	4532	92	11-79	90	4442	1
(C-16-14)15ca	4497	200	11-79	78	4419	1
(C-16-15)13bab1	4426	--	-76	flowing	>4426	3
(C-16-16)34bcd	4790	260	8-79	146	4644	1
(C-16-16)34db	4780	200	11-79	145	4635	2
(C-17-14)7ac	4421	150	11-79	6	4415	1
(C-17-14)8bd	4431	200	11-79	8	4423	1

* Salt Lake Baseline and Meridian

References:

1 Fugro Water Resources Study, FY79.
2 Fugro Verification Study, FY79.
3 Stephens, 1977.

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POTENTIOMETRIC LEVEL MEASUREMENTS
TULE VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-13
1 OF 2

FUGRO NATIONAL, INC.

15 MAY 80

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-17-14)9ca	4506	200	11-79	79	4427	1
(C-17-15)19ddd	4450	200	11-79	dry	<4450	1
(C-17-15)25cbb	4433	42	4-76	4.9	4428	3
(C-17-15)29bd	4585	200	11-79	170.2	4415	1
(C-17-15)34bc	4455	200	11-79	30	4425	1
(C-17-16)1bb	4590	150	11-79	146	4444	1
(C-18-14)8dc	4631	194	11-79	185	4446	1
(C-18-15)1ddc	4430	160	11-79	14	4416	1
(C-18-15)13dc	4460	--	-76	17	4443	3
(C-18-15)25ba	4450	--	-76	31	4419	3
(C-18-15)36cdd	4525	200	1-80	7	4418	2
(C-22-14)1cba	4780	515	-76	320	4460	3
(C-23-14)1aaa	4990	401	-35	dry	<4990	3

* Salt Lake Baseline and Meridian

References:

1 Fugro Water Resources Study, FY79.
2 Fugro Verification Study, FY79.
3 Stephens, 1977.

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POTENTIOMETRIC LEVEL MEASUREMENTS
TULE VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-13 2 OF 2

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-23-14)27bcb	5160	445	5-41	dry	<4715	1
(C-24-13)34cac	4645	294	-72	212	4433	1
(C-24-14)7cac	5300	656	3-36	dry	<4644	1
(C-27-14)27aba	5020	282	9-49	dry	<4738	2
(C-27-14)27aba	5020	500	9-51	dry	<4520	1,2
(C-28-14)10cca	5334	977	6-75	800	4534	2
(C-28-14)11abb	5190	1475	3-74	670	4520	2
(C-28-14)16bd	5390	685	5-74	535	4855	2

* Salt Lake Baseline and Meridian

References:

1 Stephens, 1974.
2 Utah State Engineers Office, 1979.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
WAH WAH VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-14

UGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-14-8)25ccc	4575	340	3-78	+3	4578	3,4
(C-14-9)19daa	4735	200	1-80	180	4555	2
(C-14-13)9cba	4623	266	4-66	226	4397	5
(C-15-7)17dad	4588	235	3-79	4	4584	3,4
(C-15-7)18dcc	4576	---	3-80	+2	4578	1
(C-15-7)21bcc	4580	---	3-78	4	4576	3,4
(C-15-7)31cdd	4577	176	3-79	5	4572	3,4
(C-15-7)33bac	4582	325	3-79	+1	4583	3,4
(C-15-8)23bba	4565	100	3-79	4	4561	3,4
(C-15-8)25aaa	4571	285	3-79	+3	4574	3,4
(C-15-8)34add	4572	160	3-79	5	4567	3,4
(C-15-10)1dba	4682	605	11-63	131	4579	4
(C-16-7)4abb	4584	---	3-79	+3	4587	3,4
(C-16-7)6cbc	4581	---	11-74	8	4573	3,4
(C-16-7)8abb	4589	---	3-79	10	4579	3,4
(C-16-7)16dda	4612	413	3-78	11	4601	3,4

* Salt Lake Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 79.
3 U.S. Geological Survey, 1979.
4 Mower and Feltis, 1968
5 Utah State Engineers Office, 1979.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
WHIRLWIND VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-15
1 OF 4

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-16-7)28bbc	4610	170	3-78	22	4588	3,4
(C-16-8)2cdd	4578	>300	3-79	9	4569	3,4
(C-16-8)8ddd	4573	--	3-78	8	4565	3,4
(C-16-8)12ddd	4587	945	3-79	17	4570	3,4
(C-16-8)15ddd	4583	290	3-79	16	4567	3,4
(C-16-8)18daa	4569	--	3-79	9	4560	3,4
(C-16-8)19ddd	4567	128	3-79	12	4555	3,4
(C-16-8)21bcb	4578	996	3-79	12	4566	3,4
(C-16-8)21ddd	4575	125	3-76	11	4564	3,4
(C-16-8)22bad	4577	626	3-79	15	4562	3,4
(C-16-8)24baa	4588	194	3-79	13	4575	3,4
(C-16-8)26bcb	4582	96	3-79	18	4564	3,4
(C-16-8)26bdb	4591	844	3-72	30	4561	3,4
(C-16-9)19acb	4744	200	1-80	176	4568	2
(C-16-9)29dcc	4610	--	7-48	70	4540	4,5
(C-16-10)1add	4808	200	1-80	>186	<4622	2

* Salt Lake Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 79.
3 U.S. Geological Survey, 1979.
4 Mower and Feltis, 1968
5 Utah State Engineers Office, 1979.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
WHIRLWIND VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-15
2 OF 4

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-16-10)36dda	4661	200	1-80	121	4540	2
(C-17-7)8adb	4605	240	3-79	14	4591	3,4
(C-17-7)16ccc	4602	227	3-79	10	4592	3,4
(C-17-7)20cbb	4592	356	3-79	9	4583	3,4
(C-17-7)28ccc	4586	--	3-79	3	4583	3,4
(C-17-7)32bcb	4582	—	3-79	0	4582	3,4
(C-17-8)5aaa	4578	207	3-79	16	4562	3,4
(C-17-8)9bbb	4572	—	3-79	11	4561	3,4
(C-17-8)11bbc	4584	987	3-79	25	4559	3,4
(C-17-8)12bcb	4572	172	3-79	9	4563	3,4
(C-17-8)13cdd	4575	150	3-79	2	4573	3,4
(C-17-8)16ddd	4566	--	3-79	4	4562	3,4
(C-17-8)26cda	4577	200	3-79	0	4577	3,4
(C-17-9)7cdc	4560	200	1-80	20	4540	2
(C-17-10)14bac	4649	--	3-80	118	4531	1
(C-17-10)28add	4668	200	1-80	147	4521	2
(C-17-10)29dbc	4719	200	1-80	>200	<4519	2

* Salt Lake Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 79.
3 U.S. Geological Survey, 1979.
4 Mower and Feltis, 1968
5 Utah State Engineers Office, 1979.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
WHIRLWIND VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-15
3 OF 4

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
(C-18-7)5dcd	4586	380	3-79	+1	4587	3,4
(C-18-7)17dda	4575	--	3-79	+3	4578	3,4
(C-18-7)20acd	4575	363	3-79	+2	4577	3,4
(C-18-8)1ddd	4575	605	3-79	+2	4577	3,4
(C-18-8)13aba	4569	330	3-79	+2	4571	3,4
(C-18-8)24ada	4573	601	3-79	+4	4577	3,4
(C-18-10)26bda	4575	--	-51	43	4532	4,5
(C-18-11)5dbb	4900	--	-35	250	4650	4,5
(C-19-8)27ddb	4577	--	3-79	7	4570	3
(C-19-10)7abc	4692	523	3-79	189	4503	3
(C-19-12)26ccc	4680	--	11-79	196	4484	3
(C-19-12)27cbd	4731	194	1-80	>194	<4537	2
(C-19-12)30abb	5220	560	-36	>560	<4660	4,5
(C-19-12)36bca	4605	200	1-80	180	4425	2
(C-20-12)1aac	4546	150	1-80	56	4490	2
(C-20-12)17adc	4660	195	1-80	>195	<4465	2

* Salt Lake Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 80.
2 Fugro Verification Study, FY 79.
3 U.S. Geological Survey, 1979.
4 Mower and Feltis, 1968
5 Utah State Engineers Office, 1979.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
WHIRLWIND VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-15
4 OF 4

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
12N/62E-29cbb	5553	112	-47	26	5527	4
12N/62E-30ac	5530	50	9-47	22	5508	4
12N/62E-30b	5558	--	-47	37	5521	4
12N/62E-33a	5594	48	-47	40	5554	4
12N/62E-33d	5531	--	12-47	24	5507	4
11N/61E-4caa	5580	--	7-79	21	5559	1
11N/61E-16d	5470	82	7-79	4	5466	1
11N/61E-25b	5440	--	-78	15	5425	3
11N/61E-27aba	5440	--	7-79	12	5428	1
11N/61E-32bbd	5431	48	-78	43	5388	2
11N/61E-35d	5417	--	-78	15	5402	3
11N/62E-4b	5523	55	-48	43	5488	6
11N/62E-4bbc	5531	--	8-79	22	5509	2
11N/62E-5d	5520	30	-48	3	5517	4
11N/62E-6a	5503	10	7-47	5	5498	4
11N/62E-7b	5480	--	9-47	18	5462	4
11N/62E-17cc	5460	15	-79	7	5453	1

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 79.
2 Fugro Verification Study, FY 79.
3 Fugro Verification Study, FY 78.
4 U.S. Geological Survey, 1979.
5 Nevada State Engineers Office, 1979.
6 U.S. Geological Survey, 1978.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
WHITE RIVER VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-16
1 OF 5

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
11N/62E-19c	5442	--	-	7	5435	4
11N/62E-20ad	5500	546	-79	40	5460	1
11N/62E-20bbc	5455	--	8-79	6	5449	1
11N/62E-28a	5639	--	-78	43	5596	3
11N/62E-28aab	5650	10	8-79	7	5643	1
11N/62E-33d	5661	130	-	7	5654	4
10N/60E-13c	5390	--	-48	50	5340	4
10N/60E-24acd	5477	--	-79	17	5460	1
10N/60E-24d	5374	--	-48	41	5333	4
10N/60E-33acd	5477	--	8-79	17	5460	1
10/60E-36b	5356	--	-78	50	5306	3
10N/60E-36c	5356	--	7-79	42	5314	1
10N/61E-5ddc	5413	--	7-79	31	5382	1
10N/61E-7aab	5400	--	7-79	96	5314	1
10N/61E-7bbb	5431	--	7-79	113	5318	1
10N/61E-11dc	5376	--	-47	5	5371	4

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 79.
2 Fugro Verification Study, FY 79.
3 Fugro Verification Study, FY 78.
4 U.S. Geological Survey, 1979.
5 Nevada State Engineers Office, 1979.
6 U.S. Geological Survey, 1978.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
WHITE RIVER VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-16
2 OF 5

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
10N/61E-13ccc	5600	51	-79	42	5558	1
10N/61E-20a	5366	--	-78	22	5344	3
10N/61E-21abb	5370	--	7-79	22	5348	1
10N/61E-26b	5344	--	10-47	9	5335	4
10N/61E-34a	5334	--	10-47	6	5328	4
10N/62E-17aad	5762	--	-78	259	5503	3
10N/62E-19add	5630	--	-78	149	5481	3
9N/59E-5d	5885	44	-57	39	5846	4
9N/59E-36cab	6160	--	8-79	33	6127	1
9N/60E-1a	5346	40	-78	50	5296	3
9N/60E-15d	5505	--	-78	195	5310	3
9N/61E-7bcc	5341	43	-78	31	5310	3
9N/61E-16c	5308	--	-78	24	5284	3
8N/59E-3c	6660	100	-67	85	6575	4
8N/60E-21a	5490	--	-78	>500	<4990	3
8N/60E-24d	5261	--	-78	35	5226	3

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 79.
2 Fugro Verification Study, FY 79.
3 Fugro Verification Study, FY 78.
4 U.S. Geological Survey, 1979.
5 Nevada State Engineers Office, 1979.
6 U.S. Geological Survey, 1978.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
WHITE RIVER VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-16
3 OF 5

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
8N/60E-27da	5340	--	-78	117	5223	3
8N/60E-28a	5480	142	-45	116	5364	4
8N/61E-19ccc	5261	--	8-79	0	5261	1
8N/61E-27cd	5258	490	12-79	40	5218	2
8N/61E-33add	5250	--	7-79	35	5215	1
8N/62E-17cd	5420	--	-79	135	5285	1
8N/62E-30ccb	5272	101	11-79	65	5207	2
8N/63E-19ba	5340	--	-79	91	5249	1
7N/61E-4dac	5240	--	7-79	38	5202	1
7N/61E-4dac	5245	--	-79	38	5207	1
7N/61E-7dd	5245	100	7-79	13	5232	1
7N/61E-36cca	5180	112	7-79	19	5161	1
7N/60E-19c	5240	--	1-80	50	5190	2
6N/60E-20ad	5270	160	-79	90	5180	1
6N/60E-21a	5240	--	-78	89	5151	3
6N/61E-6bb	5220	456	-79	39	5181	1

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 79.
2 Fugro Verification Study, FY 79.
3 Fugro Verification Study, FY 78.
4 U.S. Geological Survey, 1979.
5 Nevada State Engineers Office, 1979.
6 U.S. Geological Survey, 1978.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS

POTENTIOMETRIC LEVEL MEASUREMENTS
WHITE RIVER VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-16
4 OF 5

FUGRO NATIONAL, INC.

WELL LOCATION*	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.	REFERENCES
6N/61E-9ccb	5215	--	7-79	5	5210	1
6N/61E-27aad	5200	150	-79	72	5128	1
6N/61E-32ba	5145	50	3-79	18	5127	1
6N/61E-33d	5203	200	8-79	100	5103	1
6N/62E-7cd	5279	117	6-79	25	5254	1
6N/62E-31ad	5430	250	-79	145	5285	1
5N/60E-10ca	5150	125	-79	58	5092	1
5N/61E-31cd	5100	100	-79	20	5080	1
4N/60E-2aa	5130	405	-79	70	5060	1
4N/61E-16d	5094	--	-63	84	5010	4
4N/61E-36A	5040	--	-	90	4950	4

* Mt. Diablo Baseline and Meridian

References:

1 Fugro Water Resources Study, FY 79.
2 Fugro Verification Study, FY 79.
3 Fugro Verification Study, FY 78.
4 U.S. Geological Survey, 1979.
5 Nevada State Engineers Office, 1979.
6 U.S. Geological Survey, 1978.

NOTE: WHERE PUBLISHED DATA ARE LACKING OR INACCURATE, GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

POTENTIOMETRIC LEVEL MEASUREMENTS
WHITE RIVER VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE A1-16
5 OF 5

FUGRO NATIONAL, INC.

APPENDIX B1.0

Potentiometric Level Drawings

APPENDIX B

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APPENDIX C1.0

Water Quality Analyses

APPENDIX C

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SUBSTANCE OR PROPERTY	SUITABILITY FOR DRINKING		
	GOOD	POOR	NOT RECOMMENDED
CALCIUM	< 75	75-200	> 200
MAGNESIUM	< 50	50-150	> 150
SULFATE	< 250	250-400	> 400
CHLORIDE	< 250	250-600	> 600
FLUORIDE*	< 0.8	0.8-1.4	> 1.4
NITRATE (as N)	-	-	> 10
TOTAL DISSOLVED SOLIDS	< 500	500-1500	> 1500

* RECOMMENDED FLUORIDE LEVELS VARY WITH THE ANNUAL AVERAGE DAILY MAXIMUM AIR TEMPERATURE. BECAUSE THIS AVERAGE HAS NOT BEEN CALCULATED FOR EACH VALLEY, THE LOWER LIMITS, AS SET BY THE E.P.A., WERE USED.

NOTE: CRITERIA ARE BASED ON U.S. PUBLIC HEALTH SERVICE, 1962, U.S. ENVIRONMENTAL PROTECTION AGENCY, 1976, AND WORLD HEALTH ORGANIZATION, 1963, STANDARDS FOR DRINKING WATER IN mg/l. BICARBONATE, CARBONATE, POTASSIUM, SILICA AND SODIUM CONCENTRATIONS WERE ALSO ANALYZED AND USED IN THE CALCULATION OF TOTAL DISSOLVED SOLIDS, BUT NO RECOMMENDED LIMITS HAVE BEEN ESTABLISHED FOR THESE SUBSTANCES.

WATER QUALITY CRITERIA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE C1-1

FUGRO NATIONAL, INC.

SAMPLE LOCATION	DATE OF COLLECTION (mo./yr.)	TEMPERATURE °C	SILICA (SiO_2)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM (Na)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (as N)	pH	SPECIFIC CONDUCTANCE (μmhos/cm @ 25°C)	TRITIUM (pCi/liter)	REMARKS
9N/43E-9bbb	8-79	17	32	40	13	12	3.2	126	0	65	45	0.08	0.1	8.3	280		
7N/40E-35cc*	9-68	--	--	25	3	70[1]	--	128	0	67	37	--	--	8.1	--		
7N/42E-17cd*	8-68	--	--	33	5	47[1]	--	132	0	74	15	--	--	7.9	490		
6N/40E-13dac	8-79	16	43	26	50	45	1.1	151	0	42	12	0.91	0.1	8.2	350		
3N/40E-2dcc	8-79	22	81	9.9	0.5	64	11	136	0	34	12	1.8	0.4	8.4	260		Miller's Well
2N/40E-10bba	8-79	24	37	94	13	60	22	211	0	85	38	0.88	<0.1	8.1	540		Willow Springs
1S/41E-26acd	8-79	49	55	50	3.0	32	21	317	0	494	55	8.2	<0.1	8.0	3350		Alkali Hot Springs

*RUSH AND SCHROER, 1970.

1 SODIUM PLUS POTASSIUM

NOTE: SAMPLES FOR WATER QUALITY ANALYSIS COLLECTED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED. UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

WATER QUALITY ANALYSES
BIG SMOKY VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE C1-2

FUGRO NATIONAL, INC.

SAMPLE LOCATION	DATE OF COLLECTION (mo./yr.)	TEMPERATURE °C	SILICA (SiO_2)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM (Na)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (as N)	pH	SPECIFIC CONDUCTANCE (μmhos/cm @ 25°C)	TRITIUM (pCi/liter)	REMARKS
NEVADA																	
10N/63E-25aca	3-80	4	<0.01	51.9	12.2	10.4	4.0	160	0	20.4	14.9	0.15	>0.7	7.15	510		Urrutia Well
9N/64E-16bdb	3-80	12	<0.01	16.7	4.0	5.1	0.6	80	0	9.5	3.2	0.08	>0.7	7.35	1800		Cave Valley Spring
8N/64E-4abd	3-80	--	<0.01	24.6	6.7	7.5	1.4	120	0	4.1	8.9	0.13	0.4	7.5	4100		Cave Valley Seeding Well
8N/64E-15bcb	3-80	10	<0.01	49.3	13.6	6.2	0.9	200	0	<5	2.5	0.08	1.2	7.35	468		Harris Well
7N/64E-33cc[a]	8-79	17	--	31	--	11	0.96	250	0	11	11	--	0.34	7.6	--		Sidehill Spring
6N/63E-19da[a]	8-79	16	--	25	--	11	1.2	280	5.4	15	16	--	1.2	8.0	--		Horse Spring

BUREAU OF LAND MANAGEMENT, ELY DISTRICT, 1980.

1 SODIUM PLUS POTASSIUM

NOTE: SAMPLES FOR WATER QUALITY ANALYSIS COLLECTED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED. UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

WATER QUALITY ANALYSES
CAVE VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE C1-3

FUGRO NATIONAL, INC.

SAMPLE LOCATION	DATE OF COLLECTION (mo./yr.)	TEMPERATURE °C	SILICA (SiO_2)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM (Na)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (as N)	pH	SPECIFIC CONDUCTANCE (μmhos/cm @ 25°C)	TRITIUM (pCi/liter)	REMARKS
NEVADA																	
3N/65E-21dba*	-15	--	49	76	33	37[1]	--	187	0	71	110	--	32	--	--		Bristol Well
3N/65E-31cc	8-79	24	43	40	10	21	2.5	214	0	21	17	0.24	0.4	6.8	470		Spring
2N/64E-23dac	8-79	20	79	82	13	49	7.6	282	0	25	25	0.51	<0.1	6.8	550		Coyote Spring
2S/64E-8bdb	8-79	26	44	83	10	53	7.1	320	0	54	30	0.36	1.4	6.9	720		Spring

*EAKIN, 1963.

1 SODIUM PLUS POTASSIUM

NOTE: SAMPLES FOR WATER QUALITY ANALYSIS COLLECTED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED. UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVAOA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

WATER QUALITY ANALYSES
DRY LAKE VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE C1-4

FUGRO NATIONAL, INC.

SAMPLE LOCATION	DATE OF COLLECTION (mo./yr.)	TEMPERATURE °C	SILICA (SiO_2)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM (Na)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (as N)	pH	SPECIFIC CONDUCTANCE (μmhos/cm @ 25°C)	TRITIUM (pCi/liter)	REMARKS
							UTAH										
(C-9-9)28dac*	7-64	19.5	25	29	15	341	25	468	0	50	325	0.5	2.5	7.6	1750		
(C-9-10)21ddb*	9-64	13.5	13	13	12	448	21	664	0	161	285	2.2	0.7	7.6	1750		
(C-9-11)1ddb*	9-64	15.5	31	88	58	286	--	266	0	97	538	0.4	0.0	7.7	1940		
(C-9-11)32dda*	12-65	19.5	28	406	145	2820	271	251	0	158	5520	2.0	3.6	7.3	16200		
(C-10-9)8ccc*	12-64	15.5	38	102	37	155	10	196	0	82	363	0.5	3.3	7.6	1550		
(C-10-9)21acc*	8-71	--	37	82	36	140	8.0	185	1.6	71	286	0.3	3.0	8.2	1360		
(C-10-10)2dcc*	9-74	18.0	38	87	38	250	24	205	0	92	490	0.5	--	7.7	2050		
(C-10-10)23ca*	7-64	21.5	20	33	10	137	29	365	0	19	99	0.3	1.9	7.8	874		
(C-10-10)31bbb*	12-65	24.5	45	106	34	1060	109	200	0	61	1870	2.1	8.2	7.4	6230		
(C-11-10)5abb*	7-64	23.5	33	36	10	121	11	194	0	173	43	0.8	0.3	7.6	749		
(C-11-10)34dcd*	9-64	--	30	309	61	293	8.3	124	0	160	982	1.1	1.0	7.4	3370		Flint Springs
(C-11-11)12aba*	12-64	--	28	176	53	1680	137	248	0	95	2960	2.7	6.3	8.2	9030		
(C-12-9)8bbc*	7-64	--	16	226	112	271	4.3	193	0	152	920	0.1	1.1	7.4	3220		Keg Spring
(C-12-10)35baa	11-79	16	27	226	72	318	4	127	0	139	704	1.06	0.41	7.1	1900		Kane Spring

*STEPHENS AND SUMSION, 1978.

1 SODIUM PLUS POTASSIUM

NOTE: SAMPLES FOR WATER QUALITY ANALYSIS COLLECTED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED. UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

WATER QUALITY ANALYSES
DUGWAY VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE C1-5

FUGRO NATIONAL, INC.

SAMPLE LOCATION	DATE OF COLLECTION (mo./yr.)	TEMPERATURE °C	SILICA (SiO_2)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM (Na)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (as N)	pH	SPECIFIC CONDUCTANCE (μmhos/cm @ 25°C)	TRITIUM (pCi/liter)	REMARKS
							UTAH										
(C-10-14)33c*	7-67	60.5	33	741	224	7090	18	178	0	1560	1900	4.0	--	7.4	31200		
(C-10-14)33cdc*	8-76	55.6	33	>40	220	7600	250	187	0	1500	12000	1.8	0.09	7.2	34700		
(C-11-14)3dbd*	8-76	23.5	20	120	69	800	53	297	0	400	1200	1.1	0.15	7.3	5000		North Spring
(C-11-14)4aab*	8-76	17.5	18	190	100	2200	73	250	0	540	3700	1.0	0.34	7.4	11400		
(C-11-14)11bcb	11-79	9.5	23	43	123	612	39	288	0	506	1050	0.80	0.10	7.6	3100		Deadman Spring
(C-11-14)23aca*	3-56	24.0	--	--	--	--	--	316	--	--	--	--	--	7.2	3070		Middle Spring
(C-11-14)23dbd*	3-56	25.0	--	--	--	--	--	321	--	--	--	--	--	7.2	3160		Thomas Spring
(C-11-14)23ddc*	8-76	22.0	--	--	--	--	--	316	--	--	--	--	--	7.3	3100		
(C-11-14)26aaa*	3-56	25.5	--	--	--	--	--	320	--	--	--	--	--	7.4	3160		Lost Spring
(C-11-14)26add	11-79	26	20	48	89	381	29	283	0	435	245	0.79	0.22	7.2	2600		Percy Spring
(C-12-12)10cbc*	8-76	22.0	31	690	170	870	18	227	0	380	2500	2.9	1.9	7.3	8400		Wildhorse Spring
(C-14-12)4cbc*	4-77	23.0	52	110	72	650	23	360	--	300	980	0.4	0.63	--	4050		

*BOLKE AND SUMSION, 1978.

1 SODIUM PLUS POTASSIUM

NOTE: SAMPLES FOR WATER QUALITY ANALYSIS COLLECTED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED. UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

WATER QUALITY ANALYSES
FISH SPRINGS FLAT, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE C1-6

FUGRO NATIONAL, INC.

SAMPLE LOCATION	DATE OF COLLECTION (mo./yr.)	TEMPERATURE °C	SILICA (SiO_2)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM (Na)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (as N)	pH	SPECIFIC CONDUCTANCE (μmhos/cm @ 25°C)	TRITIUM (pCi/liter)	REMARKS
NEVADA																	
15N/68E-36cba	8-79	12	17	93	23	42	0.5	340	0	28	66	0.20	1.0	7.1	725		Willow Patch Spring. Sample. Collected from discharge pipe.
13N/69E-11cad	8-79	10	4.8	5.9	0.9	1.4	0.3	24	0	<5.0	0.5	0.04	<0.1	8.0	390		Lehman Creek
13N/69E-14bbd	8-79	9	7	22	2.5	5.4	0.9	82	0	<5	4	0.15	0.1	7.4	140		Roland Spring
13N/70E- 4cdc	8-79	13	15	20	3.1	4.4	0.6	87	0	155	13	1.9	0.3	6.5	145		
13N/70E- 9bbd	8-79	13	13	23	3.3	13	1.2	68	0	6	30	0.12	0.2	7.1	170		Water contains colliform bacteria according to owner.
13N/70E-10aba	7-79	14	27	19	2.0	10	0.8	75	0	18	3	0.11	0.3	8.5	125		
13N/70E-10cad	8-79	13	16	16	1.4	6.7	0.7	78	0	<5	4.0	0.05	0.2	7.6	120		Spring
13N/70E-14caa	7-79	15	20	18	1.9	10.4	0.8	90	0	35	2.3	0.07	0.1	8.2	150		
13N/70E-18bdb	7-79	13	7	6.7	1.1	1.8	0.4	28	0	24	0.5	0.06	0.1	7.2	44		Baker Creek. Sample collected above cement culvert.
12N/70E-15ccb	8-79	13	7.8	55	8.2	6.0	1.0	210	0	9	6.0	0.12	0.4	7.6	345		Spring Creek Spring.
12N/70E-17baa	7-79	14	15	21	2.1	3.6	0.5	88	0	9	1.0	0.06	<0.1	7.9	115		Snake Creek
11N/69E-25aba	8-79	11	6	68	30	2.4	0.5	350	0	<5.0	3.0	0.03	1.0	7.4	465		South Spring. Sample collected from discharge pipe.
10N/70E-33b*	11-64	18	--	47	20	--	--	238	--	8	3.7	0.2	2.2	7.8	401		Big Spring. Tritium Sample collected from discharge pipe.
9N/70E-34d*	11-64	--	--	41	14	20[1]	--	152	--	40	28	--	--	8.1	383		
8N/69E-15b*	11-64	11	--	41	21	23[1]	--	220	--	35	16	--	--	8.2	419		
8N/69E-36a*	11-64	--	--	38	16	29[1]	--	192	--	36	21	--	--	8.1	397		
5N/70E-11daa	8-79	16	55	80	11	27	2.4	310	0	19	23	0.23	<0.1	--	490		
(C-22-19)6bcd	7-79	13	18	79	33	15.4	1.8	390	0	21	12	0.06	3.6	6.8	540		
(C-22-19)32ada	8-79	14	12	69	37	11	2.1	220	0	8	2.5	0.11	0.2	7.6	638		Clay Spring. Sample collected discharge pipe on west side of road.
(C-23-19)9*	11-54	14	--	81	32	14[1]	--	222	--	157	8	--	0.7	7.4	687		Burbank Spring.
(C-23-19)20dbc	9-79	14	40	51	31	35	3.6	260	0	56	44	0.69	0.6	7.7	490		
(C-24-20)1dab	7-79	16	44	29	16	17.7	3.4	150	0	27	22	0.38	2.3	--	225		Needle Point Spring. Sample collected from discharge pipe.
(C-28-19)36bcc	8-79	16	39	83	7.2	27	0.8	270	0	21	32	0.10	<0.1	7.7	470		Ryan Spring
(C-30-20)26d	8-79	20	59	43	5.1	21	2.8	150	0	11	29	0.13	<0.1	--	335		Log Cabin Spring
(C-32-18)15caa	8-79	10	52	79	17	23	1.6	290	0	16	38	0.25	1.1	--	--		Spanish Gorge Spring
(C-32-19)22ddb	8-79	12	34	35	6.4	13	2.4	150	0	9	11	0.25	1.4	--	250		Sample from windmill discharge pipe.
(C-32-20)24dac	8-79	18	17	35	7.8	11	1.8	140	0	10	15	0.20	<0.1	--	285		Canyon Spring

*HOOD AND RUSH, 1966.

1 SODIUM PLUS POTASSIUM

NOTE: SAMPLES FOR WATER QUALITY ANALYSIS COLLECTED OURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED. UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

WATER QUALITY ANALYSES
HAMLIN VALLEY, NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE C1-7

FUGRO NATIONAL, INC.

SAMPLE LOCATION	DATE OF COLLECTION (mo./yr.)	TEMPERATURE °C	SILICA (SiO_2)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM (Na)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (as N)	pH	SPECIFIC CONDUCTANCE (μmhos/cm @ 25°C)	TRITIUM (pCi/liter)	REMARKS
17N/54E-16b*	10-65	13.9	--	28	24	31[1]	--	219	0	42	9.0	--	--	7.9	409		
16N/53E-8cba	3-80	17	<.01	60	32	27	6.1	388	0	37	8.4	0.59	0.3	7.6	550		Fish Creek Spring
16N/53E-9c*	8-65	17.8	--	37	29	36[1]	--	273	0	51	8.6	--	--	8.2	462		Spring
16N/53E-12abd	3-80	8	<.01	58	52	56	9.7	547	0	73	18	0.62	<0.1	8.3	835		
15N/54E-6dcb*	10-65	13.9	--	30	4.6	16	--	126	0	20	6.6	--	--	7.6	254		
15N/54E-11acb	3-80	8	<.01	261	16	61	3.1	465	0	1080	32	0.47	0.2	7.4	2100		
14N/51E-23cca	3-80	7	<.01	26	5.9	16	2.5	146	0	13	8.9	0.18	<.01	8.1	250		Pine Spring

*RUSH AND EVERETT, 1966.

1 SODIUM PLUS POTASSIUM

NOTE: SAMPLES FOR WATER QUALITY ANALYSIS COLLECTED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED. UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

WATER QUALITY ANALYSES
LITTLE SMOKY VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE
C1-8

FUGRO NATIONAL, INC.

SAMPLE LOCATION	DATE OF COLLECTION (mo./yr.)	TEMPERATURE °C	SILICA (SiO_2)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM (Na)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (as N)	pH	SPECIFIC CONDUCTANCE (μmhos/cm @ 25°C)	TRITIUM (pCi/liter)	REMARKS
								UTAH									
(C-25-16)18bdd*	9-62	16.0	31	24	12	27	3.3	124	0	19	30	0.7	--	7.6	344		
(C-25-17)33dab	11-79	14	48	16	40	25	4	131	0	13	24	0.84	1.32	8.3	170		Desert Experimental Range
(C-26-18)22cbb*	11-73	--	64	110	28	41	2.3	334	0	37	110	0.2	0.37	8.3	897		Pine Springs
(C-26-19)3acc	11-79	9	13	82	199	36	2	342	0	211	73	0.19	0.35	7.1	670		Mountain Home Spring
(C-27-18)27dba	11-79	9	12	39	56	14	2	259	0	11	34	0.12	1.94	7.8	220		Potch-im-po Spring
(C-27-18)35ccb*	11-73	11.5	48	100	41	61	1.0	257	0	81	180	0.3	0.29	8.2	1100		Willow Spring
(C-28-16)26ccc*	8-63	10.0	11	31	4.4	8.4	1.0	108	0	9.1	14	0.1	--	7.5	221		Wah Wah Mine
(C-28-16)27ccc*	11-73	11.0	15	93	12	12	1.3	329	0	11	18	0.2	0.18	7.6	569		Pine Grove Spring
(C-28-18)16cdb*	11-73	14.0	42	67	14	19	2.5	210	0	20	54	0.2	1.7	8.2	545		Vance Spring
(C-28-18)27dda*	11-73	11.0	36	51	4.7	55	2.3	232	8	15	34	0.3	0.80	8.4	504		Buckhorn Spring
(C-29-16)16dbd	11-79	9	13	16	18	8	2	54	0	4	19	0.11	0.30	7.3	89		Water Hollow Spring
(C-29-18)14ddd*	11-73	6.0	40	75	15	34	1.2	291	10	21	36	0.3	0.03	8.4	606		Indian Creek
(C-30-17)19ddd	11-79	14	37	69	64	20	2	224	0	17	34	0.20	0.07	7.6	250		Sheep Creek

*STEPHENS, 1976.

NOTE: SAMPLES FOR WATER QUALITY ANALYSIS COLLECTED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED. UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

WATER QUALITY ANALYSES
PINE VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE
C1-9

FUGRO NATIONAL, INC.

SAMPLE LOCATION	DATE OF COLLECTION (mo./yr.)	TEMPERATURE °C	SILICA (SiO_2)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM (Na)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (as N)	pH	SPECIFIC CONDUCTANCE (µmhos/cm @ 25°C)	TRITIUM (pCi/liter)	REMARKS
								NEVADA									
15N/57E-33cbd*	11-70	17.0	--	--	--	--	--	--	--	--	--	--	--	--	488		Green Spring
14N/56E-14ddc*	11-70	11.0	--	36	17	14[1]	--	194	0	22	6	--	--	--	365		Big Ball Spring
14N/57E-22aaa*	11-70	8.0	--	62	21	26[1]	--	272	0	38	24	--	--	--	574		Birch Spring
13N/55E-6d*	9-68	14.0	--	56	11	23	6.0	245	0	24	18	0.3	1.1	7.7	464		Big Louie Spring
13N/55E-20b*	11-70	13.0	--	--	--	--	--	--	--	--	--	--	--	--	344		Young Floria
13N/56E-32bac*	6-67	33.0	--	62	22	28	6.5	321	0	47	8.6	0.6	0.0	8.0	587		Duckwater Spring
12N/56E-5ab*	10-71	--	--	39	25	83[1]	--	368	0	62	10	--	--	8.0	704		Little Warm Spring. Tritium sample analyzed by Fugro National.
12N/56E-5cbd*	10-71	13.5	--	31	27	43[1]	--	272	0	48	8	--	--	8.0	551		spring
12N/56E-10ccd*	10-71	--	--	22	1	74[1]	--	196	0	34	18	--	--	8.3	462		spring
12N/57E-9bcb*	4-72	15.0	--	24	9	29[1]	--	148	0	22	12	--	--	8.0	326		Bull Creek well
11N/56E-31bca*	8-67	18.0	--	37	5.8	3.6	7.9	160	0	28	23	--	8.3	7.6	368		Indian Spring
11N/58E-32bbc*	10-71	13.0	--	36	22	20[1]	--	230	0	19	11	--	--	7.9	432		Pastroni Springs
11N/59E-5ba*	11-70	4.0	--	50	16	8[1]	--	235	0	8	4	--	--	--	376		Little Currant Creek
11N/59E-15ba*	4-69	9.5	--	25	5	12[1]	--	106	0	14	6	--	--	7.9	220		stream
11N/59E-16ba*	7-68	11.0	--	51	13	37[1]	--	232	0	36	14	--	18	8.0	--		
10N/55E-9ac*	9-68	15.0	--	46	2.5	34	2.0	177	0	26	18	0.3	8.7	7.7	405		Ike Spring
10N/57E-15add*	4-72	15.0	--	38	18	43[1]	--	252	0	40	11	--	--	8.0	484		
10N/57E-32bbb*	8-67	16.0	--	36	15	31	3.9	193	0	38	15	--	4.2	7.7	429		
10N/58E-9bcc*	10-71	13.0	--	84	41	32[1]	--	489	0	33	10	--	--	8.0	799		spring
9N/56E-14bda*	10-71	--	--	47	25	46[1]	--	262	7	68	16	--	--	8.5	611		Trapp Spring well
9N/57E-6dab*	10-71	12.0	--	45	24	92[1]	--	356	0	90	18	--	--	8.2	772		
9N/57E-20cab*	8-67	13.5	--	31	25	43	6.7	218	0	64	25	--	1.6	7.7	501		Gravel Ridge well
9N/57E-34add*	4-72	HOT	--	680	0	11,000[1]	--	51	0	1800	17,000	--	--	7.2	50,100		Oil well production water.
9N/57E-35aac*	10-71	--	--	44	22	49[1]	--	223	0	30	66	--	--	8.3	616		
9N/57E-35bad3*	3-72	15.0	--	35	18	28[1]	--	231	0	21	7	--	--	8.1	411		
9N/57E-35bad4*	11-55	--	--	1970	63	7180[1]	--	29	0	1380	13,700	--	--	6.8	--		Oil well production water.
8N/55E-15aaa*	11-65	35.0	--	--	--	--	--	--	--	--	12	--	--	--	694		North Spring
8N/55E-15acb	3-80	36.0	3.0	61.2	22.1	50.6	10.4	381	0	63	8.9	1.1	<0.1	7.2	440		Big Spring
8N/56E-2cba	3-80	14	7.3	14.4	15.7	49.0	8.5	171	0	25	10.4	0.72	1.0	7.8	310		Big well
8N/56E-3acb*	10-71	14.0	--	16	7	55[1]	--	173	6	20	10	--	--	8.6	371		
8N/56E-26bad*	10-71	--	--	6	1	1400[1]	--	527	30	76	1700	--	--	9.0	6680		
8N/57E-7ca*	10-71	--	--	2	0	150[1]	--	262	23	58	19	--	--	9.0	699		
8N/57E-11ddb	3-80	28	2.7	42.7	24.6	32.6	5.8	410	0	37	9.9	0.88	1.0	7.0	628		Blue Eagle Spring
8N/57E-22cdc*	10-71	--	--	25	33	37[1]	--	303	0	16	11	--	--	8.3	530		
8N/57E-27aac*	8-54	--	--	25	11	163[1]	--	439	0	77	16	--	--	7.0	--		
7N/55E-16db	3-80	68	5.0	66.0	15.7	72.0	15.1	434	0	47	--	1.7	<0.1	7.0	825		Chimney Hot Spring
7N/55E-28ca*	10-55	60.0	--	12	5	189[1]	--	410	0	99	16	--	--	8.3	--		
7N/56E-2dab*	11-54	109.0	--	7	6	192[1]	--	293	43	50	68	--	--	9.0	--		
7N/57E-28cbd*	10-71	--	--	57	33	35[1]	--	378	0	25	14	--	--	7.8	686		Thorn Spring

*VAN DENBURGH AND RUSH, 1973.

1 SODIUM PLUS POTASSIUM

NOTE: SAMPLES FOR WATER QUALITY ANALYSIS COLLECTED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED. UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

WATER QUALITY ANALYSES
RAILROAD VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMD

TABLE C1-10 1 OF 2

FUGRO NATIONAL, INC.

SAMPLE LOCATION	DATE OF COLLECTION (mo./yr.)	TEMPERATURE °C	SILICA (SiO_2)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM (Na)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (as N)	pH	SPECIFIC CONDUCTANCE (μmhos/cm @ 25°C)	TRITIUM (pCi/liter)	REMARKS
								NEVADA									
6N/54E-11aa*	10-71	36.5	--	--	--	--	--	--	--	--	17	--	--	--	1200		
6N/54E-11dc*	8-67	45.0	--	--	--	--	--	--	--	--	9.8	--	--	--	1070		
6N/54E-23bd*	9-68	46.0	--	100	26	120	22	673	0	51	15	2.7	0.2	7.5	1100		Abel Spring
6N/56E-5acc	3-80	17	7.4	13.0	13.4	48.4	5.8	176	0	25	5.5	2.3	0.2	--	230		
6N/56E-18dbd*	10-71	13.5	--	23	10	41[1]	--	155	5	40	8	--	--	8.5	374		Nyala well
6N/56E-24bdc*	10-71	11.0	--	36	15	16[1]	--	190	0	22	5	--	--	7.9	362		Troy Canyon Creek
6N/56E-27acb*	10-71	13.5	--	40	22	9[1]	--	237	0	11	3	--	--	8.2	402		
6N/57E-1b*	11-70	11.5	--	73	19	18[1]	--	300	0	43	6	--	--	--	528		
5N/55E-32bbd*	10-71	16.0	--	44	5	35[1]	--	133	0	52	30	--	--	8.0	426		
5N/55E-34cdd*	10-71	15.5	--	25	9	22[1]	--	147	0	18	5	--	--	7.7	286		
5N/55E-36ad1*	10-71	10.0	--	44	22	18[1]	--	242	0	28	9	--	--	8.0	454		
5N/56E-35da*	11-70	8.0	--	48	15	8[1]	--	215	0	15	5	--	--	--	371		Hooper Creek
4N/55E-19da*	10-71	--	--	27	3	128[1]	--	128	0	21	9	--	--	8.0	289		
4N/55E-11ca	11-70	9.5	--	62	18	21[1]	--	242	0	62	9	--	--	--	508		Big Creek
3N/52E-3d	3-80	8	--	--	--	--	--	615	48	--	--	--	--	8.9	1110		
3N/53E-35bac*	9-68	14.0	--	6.0	0.8	115	8.2	207	0	59	20	12	0.3	7.4	565		Ed's well
3N/54E-5bc*	3-72	--	--	6.0	0	160[1]	--	281	7	80	22	--	--	8.6	787		Goat Ranch well
3N/55E-27db*	11-70	7.0	--	--	--	--	--	--	--	--	--	--	--	--	277		
2N/52E-7cd*	8-67	14.5	--	62	1.8	26	0.6	216	0	27	11	--	5.8	7.5	427		
2N/53E-23cbc*	10-71	19.0	--	31	3	89[1]	--	219	0	71	19	--	--	8.3	556		Sunrise well
1N/52E-22cb*	8-67	20.0	--	43	4.9	40	0.8	204	0	31	9.9	--	3.4	7.9	415		Pyramid Spring
1N/53E-3dac*	10-71	--	--	45	4	130[1]	--	273	0	97	61	--	--	8.1	831		East Side well
1N/53E-7adc	3-80	14	10	2.3	<0.1	702	5.7	293	538	475	383	8.5	1.2	10.0	1380		Fred's well
1N/53E-27bba*	3-72	20.5	--	11	0	150[1]	--	283	0	87	20	--	--	8.2	722		Last Stand well
1N/53E-31 dcc*	9-68	17.0	--	17	1.8	39	5.0	148	0	7.0	7.2	1.4	0.3	7.8	273		Pyramid well
1S/53E-28bda*	3-72	21.0	--	14	1	65[1]	--	138	0	46	14	--	--	8.1	385		Deep well
2S/51E-21d*	8-67	25.0	--	62	5.9	47	2.5	240	0	48	23	0.8	0.1	7.7	533		Cedar Spring

*VAN DENBURGH AND RUSH, 1973.

1 SODIUM PLUS POTASSIUM

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WATER QUALITY ANALYSES
RAILROAD VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE C1-10
2 OF 2

FUGRO NATIONAL, INC.

SAMPLE LOCATION	DATE OF COLLECTION (mo./yr.)	TEMPERATURE °C	SILICA (SiO_2)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM (Na)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (as N)	pH	SPECIFIC CONDUCTANCE (μmhos/cm @ 25°C)	TRITIUM (pCi/liter)	REMARKS
								UTAH									
(C-9-7)35b	7-64	19	14	50	8.0	28	2.8	189	0	17	38	0.1	0.3	7.6	421		2, Spring
(C-9-8)15dbc	3-65	--	12	52	9.1	55	1.1	208	0	26	67	0.4	2.1	7.4	573		2, Winter Spring
(C-9-8)18adb	2-73	--	15	85	16	120	2.3	309	0	34	180	0.4	0.24	7.4	1100		2, Simpson Spring
(C-9-8)18adc	2-73	--	13	90	18	140	2.0	334	0	44	200	0.3	0.52	7.4	1200		2, Spring
(C-10-7)5c	8-64	18.5	8.4	40	16	43	1.1	212	0	14	54	0.2	0.1	7.9	492		2, Spring
(C-10-7)8cac	7-64	--	13	60	25	44	4.3	304	0	26	60	0.4	0.3	7.6	664		2, Cherry Spring
(C-10-7)8cad	7-64	10.0	11	55	22	35	0.9	266	0	22	47	0	1.0	7.8	566		2, Spring
(C-10-7)17a	8-64	15.0	16	61	13	48	0.6	256	0	19	58	0.2	1.1	7.9	588		2, Spring
(C-10-7)17bab	7-64	--	16	69	27	53	1.2	330	0	28	75	0.4	0.1	7.4	746		2, Spring
(C-10-8)2dba	7-64	9.5	16	70	27	46	0.7	348	0	28	55	0.3	0.2	7.6	698		2, Spring
(C-10-8)3abb	9-65	16.0	5.6	38	19	33	--	192	8	19	40	--	0.2	8.4	492		2, Indian Spring
(C-10-8)4abb	7-64	10.5	13	77	28	46	1.2	360	0	39	54	0.3	0.2	7.7	732		2, Spring
(C-10-9)8ccc	12-64	15.5	38	102	37	155	10	196	0	82	363	0.5	3.3	7.6	1550		2
(C-10-9)21acc	8-71	--	37	82	36	140	8.0	185	1.6	71	286	0.3	3.0	8.2	1360		2
(C-12-8)9bba	5-63	18	41	68	27	80*	--	194	0	36	182	--	0.7	7.2	964		1
(C-12-9)8bbc	7-64	--	16	226	112	271	4.3	193	0	152	920	0.1	1.1	7.4	3220		2, Keg Spring
(C-13-5)24acb	4-74	--	59	52	36.9	35.3	18.4	193.9	2.0	57.0	116	0.57	10.85	7.6	736		3, BLM-Little Sahara Well
(C-13-6)12bcb	3-80	--	37	99	62	--	--	160	0	275	456	1.1	0.06	--	--		
(C-13-6)26bac	3-80	10	55	119	30	--	--	140	0	531	681	1.05	1.89	7.1	3700		Christiansen Windmill
(C-13-7)9cbc	3-80	16	<0.01	23.7	22.9	101	4	140	0	44.5	123	0.75	0.8	7.8	920		BLM-Desert Mtn. Well
(C-14-5)35cdc	9-61	16	--	--	--	--	--	--	--	--	805	--	--	--	3520		1
(C-14-5)35daa	7-52	--	--	--	--	--	--	--	--	--	1340	--	--	7.4	--		1
(C-14-5)36ccc	3-59	--	32	126	94	250*	--	245	0	250	555	--	2.3	7.5	2480		1
(C-14-6)9bab	3-80	12.5	38	151	53	--	--	260	0	356	476	1.77	<0.04	7.45	3100		
(C-14-6)9dda	3-80	12.5	38	139	22	--	--	240	0	335	660	1.58	0.02	7.45	3500		
(C-14-7)20ccc	4-63	17	23	82	51	322*	--	90	0	268	540	--	2.1	7.0	2340		1
(C-14-8)10ddb	3-79	--	0.58	212	147	578	158	--	<0.01	764	471	2.89	0.03	--	--		3, Baker Hot Springs
(C-14-8)25ccc	4-63	15	17	54	36	324*	--	66	0	283	450	--	2.7	6.8	2100		1
(C-15-4)8cba	7-73	13.5	28	250	120	270	8.0	353	0	460	710	--	--	7.4	3380		4
(C-15-4)10cad	8-63	--	16	84	35	75	5.3	222	1.7	108	153	0.9	0.9	8.2	1050		1
(C-15-4)18daa	7-73	15.5	29	210	110	100	6.1	269	0	320	470	--	11**	7.4	2340		4
(C-15-4)26dcc	7-73	15.0	14	110	35	33	1.8	201	0	130	110	--	46**	7.5	973		4
(C-15-5)2ddc	6-68	15	--	113	61	76	--	196	0	76	325	--	--	8.0	1430		4
(C-15-5)13bbc	6-69	12	29	80	62	88*	--	215	0	71	280	--	0.2	7.5	1300		4
(C-15-5)14bda	3-60	--	19	65	24	45	5.0	225	0.6	85	65	0.5	0.7	7.6	886		1
(C-15-5)22bcb	3-80	--	15	37	23	--	--	140	0	37	65	0.34	<0.04	7.75	675		
(C-15-5)26baa	7-72	16	25	32	18	23	2.1	165	0	27	31	--	0.83	7.2	410		4
(C-15-5)27dcc	10-69	21	17	19	19	38*	--	177	0	24	28	--	0	7.5	387		1
(C-15-5)29dda	3-80	--	24	37	26	--	--	120	0	40	65	0.27	0.19	7.65	720		

1. MOWER AND FELTIS, 1964.
2. STEPHENS AND SUMSION, 1978.
3. BUREAU OF LAND MANAGEMENT, FILMORE DISTRICT, 1980.
4. ARNOW, et al ed, 1979.

1 SODIUM PLUS POTASSIUM

NOTE: SAMPLES FOR WATER QUANTITY ANALYSIS COLLECTED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED. UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

WATER QUALITY ANALYSES
SEVIER DESERT, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE C1-11
1 OF 2

FUGRO NATIONAL, INC.

SAMPLE LOCATION	DATE OF COLLECTION (mo./yr.)	TEMPERATURE °C	SILICA (SiO_2)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM (Na)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (as N)	pH	SPECIFIC CONDUCTANCE (μmhos/cm @ 25°C)	TRITIUM (pCi/liter)	REMARKS
								NEVADA									
15N/70E-1	8-79	16	11	52	6.3	4.7	0.6	201	0	8	3.5	0.07	<0.1	7.8	250		Hendry's Creek
17N/70E-12	8-79	13	12	31	4.2	4.7	0.9	122	0	14	3.0	0.06	<0.1	7.6	160		Smith Creek
								UTAH									
(C-12-17)34bbd	7-79	13	36	47	29	77.8	4.8	163	0	50	75	0.54	0.5	7.9	580		
(C-12-17)34dba	7-79	15	25	74	41	122	4.2	150	0	111	250	0.28	6.4	7.8	1150		Sample collected from garden hose
(C-12-18)9db	8-79	14	12	7.7	1.5	4.1	39	15	0	6	1.5	0.10	<0.10	7.7	62		Granite Creek
(C-12-18)11baa	8-79	16	22	25	5.3	17	1.2	121	0	9	11	0.45	<0.1	8.7	220		Cottonwood Creek
(C-12-18)28cbc	8-79	15	11	7.7	1.6	3.2	1.2	30	0	8	1.5	0.06	<0.1	8.1	54		Trout Creek
(C-13-18)13acc	7-79	17	26	15	4.0	10.0	1.0	58	9.6	12	8	0.09	<0.1	8.2	150		
(C-13-18)28acc	7-79	25	43	22	19	43	3.2	194	0	21	12	0.54	0.6	8.3	420		Sample collected from yard faucet - unknown distance from well
(C-13-18)28ccc*	10-49	—	—	48	23	113[1]	—	254	—	90	110	1.2	0.0	7.6	897		
(C-13-18)28da*	12-64	—	—	62	22	28[1]	—	88	—	38	49	—	—	7.7	339		
(C-13-18)30ab	8-79	14	19	59	13	27	1.9	141	0	64	62	0.69	<0.1	7.0	320		Lime Spring. Sample taken from rusty iron pipe
(C-13-18)35c*	10-49	—	—	35	6.6	—	—	68	—	250	20	0.6	0.4	7.8	489		
(C-14-18)3cdc	7-79	14	35	32	20	42.5	3.5	238	0	28	21	0.43	0.3	8.2	390		Flowing well
(C-14-18)4bdb	7-79	13	23	55	30	57.7	2.9	272	0	42	66	0.28	0.5	7.7	560		
(C-14-18)4cdd	7-79	20	18	24	12	25.2	1.7	165	0	17	17	0.1	0.8	8.5	310		pH measurement possibly erroneous
(C-14-18)17aaa	7-79	13	21	33	9.2	20.5	1.8	112	0	19	42	0.08	1.1	8.2	145		Howell Ranch
(C-14-18)22bd	7-79	13	47	88	47	109	13.0	335	0	191	100	1.5	<0.1	7.5	960		Seep
(C-15-17)8baa*	-52	—	—	86	8	579[1]	—	212	—	889	290	—	—	—	—		
(C-15-19)31bc	7-79	26	29	51	18	29.5	3.7	138	0	26	24	0.56	0.2	8.1	520		Sample collected from a spring fed pond
(C-16-18)22cab	8-79	20	21	61	30	60	5.8	297	0	58	50	0.56	0.6	6.8	520		Twin Spring
(C-18-18)16abb*		19	—	63	28	57[1]	—	317	—	58	52	—	0.3	7.6	688		
(C-18-18)16caa	8-79	18	25	59	27	49	4.9	271	0	247	230	1.1	0.2	7.4	470		Knoll Spring
(C-18-19)28bbb	7-79	10.5	34	43	17	30.5	2.2	199	0	40	25	0.24	0.1	—	300		
(C-18-19)29ddd*	10-57	23	—	28	9.0	28[1]	—	159	—	10	18	—	0.9	—	327		
(C-19-19)34abd	7-79	16	22	29	7.2	20.5	1.8	112	0	19	32	0.13	0.6	8.1	240		Sample collected from sprinkler system
(C-19-19)35cdd	7-79	11	31	49	22	23.3	2.5	238	0	28	31	0.25	0.1	—	370		
(C-20-19)6bcc*	11-64	13	—	38	14	17[1]	—	160	—	16	31	—	—	7.4	359		
(C-20-19)6cbc	8-79	15	16	37	15	13	1.1	166	0	16	21	0.08	1.0	8.1	260		Sample collected from sprinkler system
(C-20-19)7bbd*	11-54	—	—	36	13	14[1]	—	164	—	16	17	—	1.8	7.4	330		
(C-20-19)14b*	11-27	—	—	47	19	16[1]	—	232	—	15	15	—	0.1	—	—		
(C-20-19)15bcd	8-79	16	23	51	13	25	2.6	186	0	14	31	0.36	1.3	7.7	320		
(C-20-19)21add	8-79	13	17	44	8.7	21	8.2	166	0	32	26	0.16	0.5	7.7	335		
(C-20-19)30abc	7-79	14	27	46	8.8	12.2	0.9	160	4.8	16	22	0.15	0.2	—	290		
(C-21-17)8dcb	8-79	14	30	35	33	50	6.9	191	0	116	68	2.2	0.2	7.4	430		BLM - Ferguson Well
(C-21-18)17add	8-79	14	12	60	50	34	3.1	156	0	170	81	1.6	0.6	7.1	770		BLM - 8 mile Point Well

*HOOD AND RUSH, 1966.

1 SODIUM PLUS POTASSIUM

NOTE: SAMPLES FOR WATER QUALITY ANALYSIS COLLECTED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED. UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

WATER QUALITY ANALYSES
SNAKE VALLEY, NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE C1-12

FUGRO NATIONAL, INC.

SAMPLE LOCATION	DATE OF COLLECTION (mo./yr.)	TEMPERATURE °C	SILICA (SiO_2)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM (Na)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (as N)	pH	SPECIFIC CONDUCTANCE (μmhos/cm @ 25°C)	TRITIUM (pCi/liter)	REMARKS
								UTAH									
(C-15-13)19aba	8-79	17	8.2	79	48	190	3.0	140	0	83	390	0.14	1.3	7.3	690		Tuck Springs
(C-15-14)22ddd	8-79	14	36	17	100	350	20	280	0	186	930	0.62	1.1	7.3	--		West Swasy Well
(C-15-16)11abd*	1-76	--	24	33	35	160	9.0	132	0	130	240	0.7	4.2	--	1270		Well 58
(C-16-13)33abb	8-79	13	11	58	28	46	1.8	200	0	26	6.1	0.11	1.0	7.4	1750		Sinbad Springs
(C-16-15)13bab*	9-74	28	23	71	38	350	37	266	0	330	450	1.1	0.12	--	2400		Coyote Springs. Tritium sample collected by Fugro National.
(C-16-15)26cab	8-79	25	24	77	43	240	26	230	0	19	37	0.2	0.1	7.6	1750		
(C-16-16)34bcd	8-79	15	31	170	100	72	6.3	320	0	851	90	0.88	19	7.2	3350		Indian Trail Well
(C-17-13)4baa	8-79	15	12	75	21	85	1.2	320	0	39	110	0.25	<0.1	7.6	855		Wild Horse Spring
(C-17-15)15abc	8-79	28	23	60	33	190	20	220	19	314	280	1.3	0.3	7.8	1550		South Tule Spring
(C-17-16)28dbd	8-79	29	16	240	110	170	2.8	264	0	270	640	0.7	0.43	8.0	2700		Skunk Spring. Tritium sample collected by Fugro National.
(C-19-14)5adc	8-79	17	17	72	15	98	2.8	280	0	36	130	0.5	<0.1	7.5	2300		Painter Spring. Sample collected behind dam.
(C-22-14)1cba*	1-76	--	22	47	33	180	19	297	0	200	170	1.1	0.53	--	1320		Ibex Well

*STEPHENS, 1977.

1 SODIUM PLUS POTASSIUM

NOTE: SAMPLES FOR WATER QUALITY ANALYSIS COLLECTED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED. UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

WATER QUALITY ANALYSES
TULE VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - 8MO

TABLE C1-13

FUGRO NATIONAL, INC.

SAMPLE LOCATION	DATE OF COLLECTION (mo./yr.)	TEMPERATURE °C	SILICA (SiO_2)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM (Na)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (as N)	pH	SPECIFIC CONDUCTANCE (μmhos/cm @ 25°C)	TRITIUM (pCi/liter)	REMARKS
UTAH																	
(C-24-13)34ccb*	9-63	--	30	64	45	436	18	186	0	205	670	0.4	4.9	7.2	2730		
(C-26-13)22acc*	9-63	--	11	18	2.9	9.5	1.1	50	0	16	14	0.3	1.0	7.3	158		Crystal Spring
(C-27-13)9aba*	10-72	15.0	24	650	190	100	8.7	132	0	1600	600	1.1	.04	8.0	4020		
(C-27-13)14dcd*	9-63	13.0	17	224	81	82	5.6	140	0	288	420	0.6	73	8.2	2100		
(C-27-13)26caa*	9-63	16.0	26	145	42	71	0.6	232	0	76	295	0.5	11	8.0	1410		Squaw Spring
(C-27-15)11aba*	9-62	19.5	13	67	29	22	1.5	316	0	14	37	0.1	5.7	7.9	624		
(C-27-15)11aba	11-79	17.0	13	32	47	16	2	259	0	18	65	0.1	1.8	7.6	410		Wah Wah Spring
(C-27-15)12bcd*	10-72	16.5	15	64	31	21	1.4	318	0	15	38	0.2	1.4	8.1	617		
(C-28-13)18adb*	8-63	14.5	39	59	17	47	3.4	144	0	37	116	0.3	10	7.9	668		Antelope Spring
(C-28-13)28ddc*	8-63	13.5	12	27	1.5	7.6	5.3	119	0	6.0	7.0	0.7	2.5	7.4	220		
(C-28-14)11abb*	9-73	--	58	21	6.4	8.6	11	169	0	82	32	1.0	85	8.3	535		
(C-28-15)10abb*	10-73	14.0	39	120	39	33	1.8	389	0	39	110	0.2	2.8	7.5	985		Kiln Spring
(C-28-15)25ccc*	6-73	11.5	46	630	220	200	1.1	286	0	710	2100	1.3	.68	7.6	7490		
(C-29-15)2dad*	6-73	13.0	28	190	64	130	1.7	339	0	230	360	0.5	.13	7.6	1940		Willow Spring
(C-29-16)2dcd*	10-72	14.0	9.6	100	10	6.3	0.6	341	0	14	10	0.1	.74	8.1	550		Willow Creek Spring

*STEPHENS, 1974.

NOTE: SAMPLES FOR WATER QUALITY ANALYSIS COLLECTED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED. UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN

WATER QUALITY ANALYSES
WAH WAH VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE
C1-14

FUGRO NATIONAL, INC.

SAMPLE LOCATION	DATE OF COLLECTION (mo./yr.)	TEMPERATURE °C	SILICA (SiO_2)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM (Na)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (as N)	pH	SPECIFIC CONDUCTANCE (μmhos/cm @ 25°C)	TRITIUM (pCi/liter)	REMARKS
UTAH																	
(C-16-13)23ad	11-79	8 . 13		26	16	43	2	249	0	27	85	0.11	0.41	7.5	365		Swazey Spring
(C-16-13)34ad	11-79	11	13	23	12	29	2	205	0	16	80	0.09	0.90	7.6	665		Antelope Spring

NOTE: SAMPLES FOR WATER QUALITY ANALYSIS COLLECTED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED. UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

WATER QUALITY ANALYSES
WHIRLWIND VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMD

TABLE C1-15

FUGRO NATIONAL, INC.

SAMPLE LOCATION	DATE OF COLLECTION (mo./yr.)	TEMPERATURE °C	SILICA (SiO_2)	CALCIUM (Ca)	MAGNESIUM (Mg)	SODIUM (Na)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (Cl)	FLUORIDE (F)	NITRATE (as N)	pH	SPECIFIC CONDUCTANCE (µmhos/cm @ 25°C)	TRITIUM (pCi/liter)	REMARKS
								NEVADA									
12N/61E-34ada	8-79	18	27	65	24	19	3.3	268	0	61	21	0.30	1.5	7.5	570		
12N/62E-32aad	8-79	13	45	58	39	38	3.6	390	0	56	9.4	0.12	3.3	7.3	640		
11N/61E-32bbd	7-79	21	28	54	22	41	4.7	264	0	53	16	0.11	0.9	7.8	580		
11N/61E-35acc	7-79	16	47	130	44	149	9.2	239	0	221	83	0.27	2.1	7.5	1050		
11N/62E-4abd	8-79	15	24	61	32	14	1.5	327	0	24	6.5	0.10	3.9	7.3	490		
11N/62E-8caa	8-79	12	46	68	47	29	8.9	420	0	79	18	0.19	1.4	7.1	730		
11N/62E-17cca	8-79	13	40	48	27	10	5.0	278	0	28	4.0	0.14	0.8	7.2	480		
11N/62E-33acb	8-79	17	15	62	22	5.8	1.1	332	0	22	3.0	0.16	0.8	7.4	490		Spring
11N/62E-33dbd	8-79	18	14	63	23	5.7	1.2	248	0	24	3.0	0.16	0.8	7.4	510		Spring
10N/61E-21abb	7-79	21	63	44	19	21.4	5.5	197	0	43	16	0.26	0.5	7.6	380		
10N/61E-23aba	8-79	15	37	70	44	41	6.4	366	0	142	33	0.35	<0.1	7.2	720		
10N/62E-31bbc	8-79	16	21	42	24	10	1.8	244	0	25	3.5	0.23	0.8	7.2	410		Dee Gee Spring
9N/61E-13cac	8-79	15	15	55	22	65	1.7	283	0	17	2.5	0.18	0.8	7.5	440		Hardy Spring
9N/61E-32dba	8-79	36	29	61	19	26	5.6	293	0	50	9.4	1.3	0.1	7.3	720		Mormon Hot Spring
9N/62E-19dab	8-79	20	13	59	24	5.6	1.3	303	0	16	3.0	.19	0.8	7.1	520		Immigrant Spring
8N/62E-14caa	8-79	22	27	18	52	14	2.5	254	0	21	9.4	0.29	1.1	7.4	460		Silver Spring
8N/63E-19ada	8-79	16	47	57	18	16	2.5	268	0	24	15	0.20	14	7.4	520		Shing Spring
7N/61E-36ccd	7-79	17	86	36	35	13.6	5.0	273	0	11	4	0.54	<0.1	7.9	430		
7N/62E-28ab**	5-49	—	46	40	23	2	—	178	—	27	18	--	--	--	--		Butterfield Spring. Tritium sample analyzed by Fugro National, 8-79.
7N/62E-33bcb	8-79	--	--	--	--	--	--	--	--	--	--	--	--	--	--		Flag Spring.
6N/59E-18da	7-79	28	15	62	29	9.5	1.2	312	0	19	6	0.07	1.3	7.3	550		
6N/60E-25acb	8-79	33	26	53	21	22	4.2	268	0	42	9.0	0.78	<0.1	7.4	640		Forest Moon Spring
6N/61E-18da*	4-63	27	28	60	24	24	5.1	300	—	43	9.0	1.0	0.6	7.6	548		Hot Creek Spring

**1. EAKIN, 1966.

*2. MAXEY AND EAKIN, 1949.

1 SODIUM PLUS POTASSIUM

NOTE: SAMPLES FOR WATER QUALITY ANALYSIS COLLECTED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED. UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

WATER QUALITY ANALYSES
WHITE RIVER VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE C1-16

FUGRO NATIONAL, INC.

APPENDIX D1.0

Water Quality Drawings

APPENDIX D

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APPENDIX E1.0

Summary of Aquifer Test Data
Nevada-Utah

WELL LOCATION	DURATION OF TEST (hours)	DIAMETER OF WELL (inches)	SCREENED LENGTH (feet)	PUMPING RATE (gpm)	MAXIMUM DRAWDOWN (feet)	TRANSMISSIVITY (gpd/ft)
			Big Smoky Valley			
6N/40E-13dac	16	16	75	1200	32.2	123,900[1]
3N/40E-2dcc	15	6	220	15-20	12.4	1400[1]
			Hamlin Valley			
13N/70E-10aba		20	298	1080	99.8	17,800[2]
13N/70E-9	5.5	16	90	180	31.1	2350[1]
13N/70E-14cc	28.3	6	44	5.8	*	432[2]
(C-22-19)6bca	1.5	16	59	420	29.8	9650[2]
			Snake Valley			
(C-14-18)17aaa	1.0	8	10	24	5.0	14,100[2]
(C-19-19)34adb	9.7	14	66	1300	4.6	138,500[1]
(C-19-19)34dac	18.8	14	62	2200	11.5	139,000[2]
(C-19-19)35bdd	24.3	16	90	1800	18.2	279,000[2]
	5.5					350,000[3]
(C-19-19)35dcd	6.4	16	57	850	9.6	83,000[2]

Transmissivity values are based on:
1 Average of drawdown and recovery calculations.
2 Recovery data.
3 Drawdown data.

* Flowing well

NOTE: UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

SUMMARY OF AQUIFER TEST DATA
NEVADA - UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE E1-1 1 OF 2

FUGRO NATIONAL, INC.

WELL LOCATION	DURATION OF TEST (hours)	DIAMETER OF WELL (inches)	SCREENED LENGTH (feet)	PUMPING RATE (gpm)	MAXIMUM DRAWDOWN (feet)	TRANSMISSIVITY (gpd/ft)
			Sevier Desert			
(C-13-7)9cbc	7.0	6	60.5	45	23.8	1500[1]
			Tule Valley			
(C-16-16)34bcd	5.3	8	72	15	8.3	16,200[2]
			White River Valley			
12N/62E-29b	5.0	10	--	980	16.8	71,600[1]
11N/62E-33dd	8.8	--	22	1750	37.0	14,000[3]
10N/61E-19cb	51.0	8	270	650	50.4	10,300[1]
7N/61E-36cca	51.7	6	51	21	43.2	1420[1]

Transmissivity values are based on:
1 Average of drawdown and recovery calculations.
2 Recovery data.
3 Drawdown data.

* Flowing well.

NOTE: UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

SUMMARY OF AQUIFER TEST DATA
NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE E1-1
2 OF 2

UGRO NATIONAL, INC.

15 MAY 80

APPENDIX F1.0

Discharge Measurements

APPENDIX F

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LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
9N/42E-19b	stream	8-79	6320	130
9N/42E-30a	stream	-68	6240	1922[2]*
8N/39E-13b	spring	-67	5700	1[2]
2N/39E-13d	spring	7-67	6040	<1[2]
2N/40E-10bba	spring	8-79	6020	1E
2N/40E-19c	spring	9-67	6400	<1[2]
1S/40E-25c	spring	-	4350	<25[3]
1S/41E-26a	spring	-	5020	40[3]
2S/43E-36ccc	spring	-	5840	<1[1]

References:

1 Hess and Mifflin, 1978.
2 Rush and Schroer, 1970.
3 Rush, 1968.

* Average of multiple measurements.

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
BIG SMOKY VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-1

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
9N/64E-16bdb	spring	3-80	6500	1000E
7N/64E-33cc	spring	3-80	6400	<1
6N/63E-19da	spring	3-80	6500	<1

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
CAVE VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-2

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
3N/65E-31cc	spring	8-79	5100	3
2N/63E-13cba	spring	8-79	5210	1
2S/64E-8bdb	spring	8-79	4810	3.5

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
DRY LAKE VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-3

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
(C-10-11)27cbd	spring	9-56	5620	0.03[1]
(C-12-10)35baa	spring	11-79	5580	0.8

References:
1 Stephens and Sumsion, 1978.

E - DISCHARGE ESTIMATED

NOTE: MEASURED OURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
DUGWAY VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-4

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
(C-11-14)3dbd	spring	8-76	4303	3140[1]
(C-11-14)4bbb	spring	8-76	2498	20[1]
(C-11-14)11bcb	spring	11-79	4310	5E
(C-11-14)11bcb	spring	8-76	4310	100[1]
(C-11-14)11cdb	spring	7-76	4308	150[1]
(C-11-14)23aca	spring	7-76	4315	850[1]
(C-11-14)23dbd	spring	7-76	4315	2400[1]
(C-11-14)23ddc	spring	8-76	4315	5400[1]
(C-11-14)26aaa	spring	7-76	4310	1100[1]
(C-11-14)26add	spring	7-76	4310	3600[1]
(C-11-14)26daa	spring	7-76	4315	1700[1]
(C-12-12)10cbc	spring	8-76	5300	<1[1]

References:

1 Bolke and Sumsion, 1978.

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
FISH SPRINGS FLAT, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-5

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
(C-22-19)33bb	spring	8-79	5435	15E
(C-22-20)1b	stream	7-79	5300	1988
(C-24-20)1dab	spring	7-79	5455	4.5
(C-30-20)26d	spring	8-79	7045	<1
(C-32-18)15caa	spring	8-79	6640	12
(C-32-19)10bba	flowing well	11-62	6700	2E[2]
(C-32-20)24dac	spring	8-79	7150	30.9
15N/68E-36ca	spring	8-79	6640	1.25
13N/69E-10dd	spring	9-66	6300	1900[1]
13N/69E-11cad	spring	8-79	6600	2800
13N/69E-14bbd	stream	8-79	6800	3563
13N/70E-10	stream	8-79	5250	1764
13N/70E-14	flowing well	11-49	5200	20[2]
12N/70E-12c	stream	7-79	5520	2989
12N/70E-18daa	stream	7-79	6480	2424
11N/69E-25aba	spring	8-79	7600	11.2E
10N/70E-33abc	spring	8-79	5560	4200

References:

1 Hess and Mifflin, 1978.
2 Hood and Rush, 1965.

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
HAMLIN VALLEY, NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMD

TABLE F1-6

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
16N/53E-8b	spring	9-65	6030	4000[1]
16N/53E-8b	spring	11-65	6040	2424[2]
16N/53E-12abd	spring	3-80	6010	681
		10-65		225[2]
15N/54E-11acb	spring	3-80	6350	0.26
14N/51E-22c	spring	pre-66	7400	449[2]
14N/51E-23cca	spring	3-80	7200	183
14N/51E-34	spring	pre-66	7360	90[2]
11N/55E-21	spring	3-80	7000	2.5E

References:
1 Hess and Mifflin, 1978.
2 Rush and Everett, 1966.

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
LITTLE SMOKY VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-7

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
(C-26-18)16add	spring	11-73	6405	seep[1]
(C-26-18)22cbb	spring	11-73	6570	0.15[1]
(C-26-19)3abc	spring	11-73	7150	0.5E
(C-27-18)27dba	spring	11-73	6340	20.0E[1]
(C-27-18)35ccb	spring	11-73	6260	2.5[1]
(C-28-16)27ccc	spring	11-73	6700	15E[1]
(C-28-16)27ddd	spring	-55	7080	5E[1]
(C-28-18)16cdb	spring	11-73	6675	60E[1]
(C-28-18)27dda	spring	-55	6670	10E[1]
(C-28-18)32ada*	spring	11-73	6920	3E[1]
(C-28-18)32cca*	spring	11-73	7150	7E[1]
(C-28-18)32dad*	spring	11-73	7000	7E[1]
(C-28-18)33bbd*	spring	11-73	6845	3E[1]
(C-28-18)33bbd*	spring	11-73	6835	3E[1]
(C-29-16)16dbd	spring	11-79	7320	18

References:
1 Stephens, 1976.

* Total flow in stream (25 gpm E) originates from these springs.
** Total flow through break in dam (110 gpm E) originates from these and other springs upstream.

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
PINE VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-8
1 OF 2

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
(C-29-18)14ddd**	spring	11-73	6780	--[1]
(C-29-18)16ccc**	spring	11-73	7860	--[1]
(C-30-17)19ddc	spring	11-79	6900	4

References:

1 Stephens, 1976.

* Total flow in stream (25 gpm E) originates from these springs.

** Total flow through break in dam (110 gpm E) originates from these and other springs upstream.

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
PINE VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-8 2 OF 2

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
15N/55E-29c	spring	11-70	6350	DRY
15N/57E-33cdb	spring	11-70 8-65	6080	>100E[2] 675[1]
14N/56E-14dcc	spring	11-66	5880	400[2]
14N/56E-25bd	stream	11-66	5800	225[2]
14N/57E-22aaa	spring	11-70	6250	5-10E[2]
13N/55E-6d	spring	11-70	6270	1.0[2]
13N/55E-20b	spring	11-70	6240	0.3[2]
13N/57E-32bac*	spring	--	5560	5834[2]
12N/55E-16c	spring	--	6310	1E[2]
12N/56E-5ac	spring	10-71	5590	200[2]
12N/56E-5cbd	spring	10-71	5460	50E[2]
12N/56E-10ccd	spring	10-71	5580	1E[2]
11N/56E-30daa	spring	--	6020	1-5E[2]
11N/56E-31bca	spring	8-67	6180	1E[2]
11N/56E-31ccd	spring	--	6300	1-5E[2]

References:
1 Hess and Mifflin, 1978.
2 Van Denburgh and Rush, 1974.

* Average of discharge measurments from 1967 to 1972.

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
RAILROAD VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-9 1 OF 4

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
11N/58E-15aca	spring	--	6380	1-5E[2]
11N/58E-32bbc	spring	10-71	5360	300E[2]
10N/55E-9a	spring	11-70	6600	1.2[2]
10N/57E-32bbb	flowing well	2-80 8-67	4827	200 250-350E[2]
10N/58E-8adb	stream	2-80	5200	3200
10N/58E-9b	spring	10-71	5250	200E[2]
9N/56E-34cac	flowing well	6-68	4731	90[2]
9N/56E-35cda	flowing well	7-69	4732	36[2]
9N/57E-5ccd	stream	2-80	4800	1500E
9N/57E-20cab	flowing well	10-71	4760	0.2[2]
8N/55E-14bcb	spring	3-72	4770	450[2]
8N/55E-15aaa*	spring	--	4805	171[2]
8N/55E-15acb*	spring	2-80 --	4820	370 476[2]
8N/55E-15add*	spring	--	4800	332[2]

References:

1 Hess and Mifflin, 1978.
2 Van Denburgh and Rush, 1974.

* Average of discharge measurments from 1967 to 1972.

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
RAILROAD VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-9
2 OF 4

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
8N/56E-2cba	flowing well	2-80	4734	90
8N/56E-2dac	flowing well	2-80 10-71	4734	250 75-95E[2]
8N/56E-3acb	flowing well	2-80 10-71	4731	100E 60-70E[2]
8N/57E-11ddb	spring	3-72 2-48	4765	1860[2] 2260[2]
8N/57E-12dd	spring	11-66	4760	250E[1]
8N/57E-14ac	spring	1-35	4755	14E[2]
8N/57E-27dac	spring	11-66 1-35	4750	200E[1] 230E[2]
7N/55E-16db	spring	2-80 8-67	4820	12 20E[2]
7N/57E-28acb	spring	2-34	4760	10E[2]
7N/57E-28cbd	spring	10-71	4750	50-100E[2]
6N/54E-11aa	spring	10-71	4805	5E[2]
6N/54E-11bd	spring	2-80 9-68	4810	350E 25E[2]
6N/54E-11dc	spring	8-67	4820	2E[2]

References:

1 Hess and Mifflin, 1978.
2 Van Denburgh and Rush, 1974.

* Average of discharge measurments from 1967 to 1972.

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
RAILROAD VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-9 3 OF 4

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
6N/56E-5acc	flowing well	2-80 10-71	4712	350E 120-180E[2]
6N/56E-24bdc	stream	2-80	4900	55
6N/56E-27acb	flowing well	4-62	4768	100[2]
6N/56E-27bdd	flowing well	3-72	4768	40-50[2]
6N/57E-1b	spring	11-70	6000	1.0[2]
6N/57E-5baa	spring	2-34	4750	30[2]
3N/52E-3d	stream	3-80	5100	1500
3N/55E-27db	spring	11-70	7000	5E[2]
1N/52E-22cb	spring	8-67	5820	0.2E[2]
2S/51E-17a	spring	--	6700	3E[2]
2S/51E-21d	spring	8-67	6540	2.5E[2]

References:
1 Hess and Mifflin, 1978.
2 Van Denburgh and Rush, 1974.

* Average of discharge measurments from 1967 to 1972.

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
RAILROAD VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-9
4 OF 4

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
(C-9-6)31*	spring	5-76	7210	75[1]
(C-9-7)11ccd	spring	3-65	6560	1E[1]
(C-9-7)28bc	spring	3-65	5700	1E[1]
(C-9-7)28cac	spring	7-64	5770	40E[1]
(C-9-7)28cac	spring	5-76	5770	5E[1]
(C-9-7)31dbb	spring	7-64	6310	0.2E[1]
(C-9-7)35b	spring	7-64	6300	100E[1]
(C-9-8)15dbc*	spring	12-65	6000	30[1]
(C-9-8)18adb	spring	12-65	5070	4[1]
(C-10-7)8cac	spring	7-64	6490	1E[1]
(C-10-7)8cad	spring	7-64	6460	40E[1]
(C-10-7)17a	spring	8-64	6400	0.5E[1]
(C-10-7)17bab	spring	7-64	6555	7.5E[1]
(C-10-8)2dba	spring	7-64	6900	100E[1]
(C-10-8)3ab*	spring	9-65	6680	2000E[1]

References:

1 Stephens and Sumsion, 1978.

* Braided spring discharge, measured, or estimated at several locations.

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
SEVIER DESERT, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMD

TABLE F1-10 1 OF 2

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
(C-10-8)4abb	spring	7-64	6050	35E[1]
(C-10-8)5dba	spring	-55	5740	250E[1]

References:

1 Stephens and Sumsion, 1978.

* Braided spring discharge, measured, or estimated at several locations.

E - DISCHARGE ESTIMATED

NOTE: MEASURED OURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
SEVIER DESERT, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-10 2 OF 2

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
17N/70E-9a	stream	8-79	5840	853
12N/70E-15cb	spring	9-66	6120	713-1683[1]
10N/70E-33	spring	9-65	5550	4000[1]
10N/70E-33	spring	-	5580	3590E[1]
10N/70E-33b1	spring	11-64	5580	3590E[2]
(C-11-16)6cbc4	flowing well	10-52	4346	1E[2]
(C-12-18)9db	stream	8-79	6640	450
(C-12-18)28cb	stream	8-79	6520	969
(C-13-18)13d	flowing well	11-38	4680	<0.1E[2]
(C-13-19)12ab	stream	8-79	6680	853
(C-14-18)3	flowing well	11-38	4744	4E[2]
(C-14-18)3	flowing well	11-38	4744	14[2]
(C-14-18)22bd	spring	8-79	4770	10E
(C-15-19)31cb	stream	8-79	5200	6238
(C-15-19)31bc	spring	11-64	5300	3590E[2]
(C-16-18)16dad	spring	10-64	4825	1346E[2]

References:
1 Hess and Mifflin, 1978.
2 Hood and Rush, 1965

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
SNAKE VALLEY, NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-11
1 OF 3

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
(C-16-18)22cab	spring	10-64	4812	1795E[1]
(C-17-19)21	spring	-	4930	120E[2]
(C-18-18)8a	spring	-	4853	2E[2]
(C-18-18)16abb	spring	10-64	4880	3E[2]
(C-18-19)20ddd2	flowing well	10-57	4965	75E[2]
(C-18-20)36	stream	8-79	5350	377
(C-19-19)35cac	seep	8-79	4970	10
(C-20-19)1bcc	flowing well	5-51	4985	1[2]
(C-20-19)6bcc	flowing well	11-36	5080	36[2]
(C-20-19)7aab1	flowing well	11-36	5170	7[2]

References:

1 Hess and Mifflin, 1978.
2 Hood and Rush, 1965

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
SNAKE VALLEY, NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-11
2 OF 3

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
(C-22-19)33bb	spring	8-79	5435	15E
(C-22-20)1b	stream	7-79	5300	1988
(C-24-20)1dab	spring	7-79	5455	4.5
(C-30-20)26d	spring	8-79	7045	<1
(C-32-18)15caa	spring	8-79	6640	12
(C-32-19)10bba	flowing well	11-62	6700	2E[2]
(C-32-20)24dac	spring	8-79	7150	30.9
15N/68E-36ca	spring	8-79	6640	1.25
13N/69E-10dd	spring	9-66	6300	1900[1]
13N/69E-14ddb	spring	8-79	6600	2800
13N/69E-22	stream	8-79	6800	3563
13N/70E-10	stream	8-79	5250	1764
13N/70E-14	flowing well	11-49	5200	20[2]
12N/70E-12c	stream	7-79	5520	2989
12N/70E-18daa	stream	7-79	6480	2424
11N/69E-25aba	spring	8-79	7600	11.2E
10N/70E-33abc	spring	8-79	5560	4200

References:
1 Hess and Mifflin, 1978.
2 Hood and Rush, 1965

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
SNAKE VALLEY, NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-11 3 OF 3

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
(C-15-13)19aba	spring	8-79	6050	0.25
(C-16-13)33abb	spring	8-79	7890	6.8
(C-16-15)13bab	spring	1-76	4421	100E[1]
(C-17-13)4baa	spring	8-79	7350	0.1
(C-17-16)28dbd	spring	11-79	5510	0.2
(C-19-14)5adc	spring	8-79	5520	15

References:

1 Stephens, 1977.

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
TULE VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-12

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
(C-27-13)4dbb*	spring	-63	5780	3E[1]
(C-27-15)1ccc	spring	10-72	5450	0.5E[1]
(C-27-15)1ccc	spring	10-72	5450	seep[1]
(C-27-15)2dda	spring	10-72	5460	seep[1]
(C-27-15)11aab	spring	10-72	5540	5E[1]
(C-27-15)11aad	spring	10-72	5540	10E[1]
(C-27-15)11aba	spring	10-72	5640	450E[1]
(C-27-15)12bbc	spring	10-72	5470	10E[1]
(C-27-15)12bcd	spring	10-72	5450	20E[1]
(C-28-13)18abd	spring	8-63	5530	5E[1]
(C-28-15)10abb	spring	10-72	5850	5E[1]
(C-28-15)25ccc	spring	6-73	6040	10E[1]
(C-29-15)2dad	spring	6-73	6150	25E[1]

References:
1 Stephens, 1974.

* Dry 10-72.

E - DISCHARGE ESTIMATED

NOTE: MEASURED OURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
WAH WAH VALLEY, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-13

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
14N/63E-35ba	spring	10-66	7200-7640	685[1]
13N/63E-8b	spring	10-66	7600-7800	325[1]
12N/59E-18cd	spring	11-66	7700	150[1]
12N/61E-12bc	spring	11-66	5700	780[1]
12N/61E-12d	spring	11-66	5700	1125[1]
12N/61E-12dc	spring	11-66	5700	1380[1]
12N/61E-29c	spring	11-66	5700	3900[1]
11N/62E-1aa	spring	6-66	5600	2800[1]
11N/62E-33ac	spring	8-79	5478	14
10N/62E-4aa	spring	11-66	5650	175[1]
9N/61E-13c	spring	11-66	5350	200E[1]
9N/61E-32d	spring	11-66	5300	1900[1]
9N/62E-19ac	spring	7-75	5450	1350[1]
8N/63E-19ada	spring	8-79	6565	2E
7N/62E-28ad	spring	11-66	5250	1125[1]
7N/62E-33bc	spring	7-75	5250	1125[1]
6N/59E-18da	spring	11-66	6210	425E[1]

References:

1 Hess and Mifflin, 1978.

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
WHITE RIVER VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-15 1 OF 2

FUGRO NATIONAL, INC.

LOCATION	SOURCE	DATE OF MEASUREMENT-MO.-YR.	ELEVATION (Feet)	DISCHARGE (gpm)
6N/60E-25b	spring	8-79	5200	700
		11-66	5200	900[1]
6N/61E-18ad	spring	5-49	5200	6885[1]

References:

1 Hess and Mifflin, 1978.

E - DISCHARGE ESTIMATED

NOTE: MEASURED DURING FUGRO WATER RESOURCE STUDIES EXCEPT WHERE NOTED.
UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.
WHERE PUBLISHED DATA ARE LACKING OR INACCURATE GROUND SURFACE ELEVATIONS ARE TAKEN FROM TOPOGRAPHIC MAPS.

DISCHARGE MEASUREMENTS
WHITE RIVER VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE F1-15
2 OF 2

FUGRO NATIONAL, INC.

APPENDIX G1.0

Water-Table Monitoring Borings
Nevada-Utah

WELL LOCATION	ELEVATION OF GROUND SURFACE-FEET ABOVE M.S.L.	DEPTH OF WELL-FEET	DATE OF MEASUREMENT-MO.-YR.	WATER LEVEL BELOW LAND-SURFACE-FEET	WATER LEVEL ELEVATION-FEET ABOVE M.S.L.
		Hamlin Valley			
(C-23-19)22b	5480	50	10-79	47	5433
		Snake Valley			
(C-18-18)10aac	4920	50	10-79	48	4872
		Tule Valley			
(C-18-15)1ddd*	4435	150	10-79	14	4421
		White River Valley			
10N/61E-24baa	5400	50	11-79	42	5358

* WELL IS NOT LOCATED AT HIGHEST OCCURENCE OF PHREATOPHYTES.

NOTE: UTAH LOCATIONS BASED ON SALT LAKE BASELINE AND MERIDIAN. NEVADA LOCATIONS BASED ON MT. DIABLO BASELINE AND MERIDIAN.

WATER TABLE MONITORING BORINGS
NEVADA-UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE
G-1

UGRO NATIONAL, INC.

APPENDIX H1.0

Intermediate Aquifer Drilling Data

APPENDIX H

Table of Contents

H1-1
Drilling Operations Data

VALLEY	TYPE OF WELL	WELL NO.	WELL LOCATION	DRILLING OPERATIONS START	DRILLING OPERATIONS END	TOTAL DEPTH (FEET)	WELL DIAMETER (INCHES)	CASING DIAMETER (INCHES)	SCREENED SECTIONS (FEET) OBSERVATION SHALLOW	SCREENED SECTIONS (FEET) OBSERVATION DEEP	SCREENED SECTIONS (FEET) TEST	DEVELOPMENT METHODS
White River	Observation	OW-1	8N/61E-27dc	11/20/79	12/19/79	1300	18-5/8	2	150'-200'	340'-400'		Air Lift
Dry Lake	Observation	OW-2	3S/64E-12ca	1/3/80	1/24/80	1305	18-5/8	2	765'-785'	1270'-1290'		Air Lift
	Test	TW-1	3S/64E-12ca	1/26/80	2/12/80	1012	18-5/8	10			600'-620' 650'-670' 700'-720' 750'-770' 800'-820' 850'-870' 900'-920' 950'-970'	Swab & Bail, pump
Delamar	Observation	OW-3	6S/63E-12a	2/15/80	2/23/80	1012	18-5/8	2	540'-630'	816'-847' 877'-940' 950'-971'		Air Lift
	Test	TW-2	6S/63E-12a	2/29/80	3/12/80	1215	18-5/8	10		920'-980' 1040'-1180'		Swab & Bail, pump

DRILLING OPERATIONS DATA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

TABLE H1-1

FUGRO NATIONAL, INC.

H1-2
Lithologic Logs

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-3

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB DATE 2/16/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
0	Silt: Tan silt.
10	Silt with Boulders: Tan silt with medium colored, well sorted, subangular boulders to 6 inches.
20	Silt with Gravel: Tan silt with medium colored, well sorted, subangular, fine-grained gravel to 2 inches.
30	
40	Gravel: Medium to dark colored, fine-grained, well sorted, subangular to angular gravel to 1 inch with less than 5% silt. Organic matter (roots) present.
50	
60	Gravel with Boulders: Gravel as above with medium colored, 6-inch, angular (broken by drilling operations) boulders.
70	Silt and Sand: Tan silt and medium colored, very fine-grained, well sorted, subrounded sand.
80	Gravel and Silt: Medium colored, fine- to coarse-grained, poorly sorted, subrounded to angular gravel to 1 inch and tan silt.
90	Gravel: Medium colored, fine- to coarse-grained, poorly sorted, angular gravel to 3 inches, with less than 10% silty sand, and boulders to 5 inches present.
100	Silt with Gravel: Tan silt with medium colored, well sorted, subangular, fine-grained gravel to 3/4 inch.

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-3

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB DATE 2/17/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
100	Gravel: Light to medium colored, moderately sorted, subangular to angular (some freshly broken by drilling) fine- to 3-inch gravel and less than 10% coarse sand; boulders to 4 inches.
110	
	- - - - Grain size decreasing.
120	
130	Silt and Sand: Tan silt and medium colored, poorly sorted, fine- to very coarse-grained sand; organic matter (roots) present.
140	Gravel: Medium colored, poorly sorted, angular, fine-grained to 3-inch gravel. Less than 5% coarse sand. Boulders (freshly broken by drilling) to 5 inches.
150	Gravel and Silt: Gravel as above (140 to 150 feet) with approximately 50% tan silt.
160	Gravel: Medium to dark colored, well sorted, angular, fine-grained gravel to 3/4-inch, with less than 10% silty sand.
170	- - - - Grain size increasing to 1 inch.
180	Silt and Sand: Tan silt and medium colored, moderately sorted, subrounded to subangular, very fine- to medium-grained sand.
190	Silt and Sand: Tan silt and medium colored, moderately sorted, subangular to angular sand. Organic matter (roots) present.
200	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-3

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB DATE 2/17/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
200	Gravel and Silt: Medium colored, fine-grained, well sorted, subangular to angular gravel to ½ inch and tan silt.
210	Silt and Sand: Tan silt and medium colored, very fine-grained, well sorted sand, and occasional gravel to 1/3 inch present.
220	
230	- - - - Grain size increasing.
240	Silt: Tan silt with organic matter (Root hairs) present.
250	Sand and Gravel: Dark colored, coarse-grained, well sorted, subangular to angular sand and fine-grained gravel; organic matter (roots) present.
260	- - - - Less than 5% tan sandy silt present.
270	- - - - Sandy silt increasing to less than 10%.
280	Sand and Gravel with Silt: Sand and gravel as above (250 to 260 feet) with less than 25% tan silt.
290	Sand and Gravel: Dark colored, coarse-grained, well sorted, subangular to angular sand and well sorted, fine-grained gravel.
300	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-3

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB DATE 2/17/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
300	Gravel and Sand: Medium colored, fine-grained, well sorted, subangular to angular gravel to ½ inch, and medium colored, coarse-grained, well sorted, subangular to angular sand with less than 5% tan silt.
310	Gravel: Medium colored, fine- to coarse-grained, poorly sorted, subrounded to angular gravel to 1-3/4 inches with less than 10% tan silt.
320	
	- - - - Angularity increasing.
330	Gravel and Sandy Silt: Medium colored, fine-grained, well sorted, subangular gravel to 1/3 inch and tan sandy silt.
340	Silt and Sand: Tan silt and medium colored, very fine- to very coarse-grained (predominantly fine), poorly sorted, subrounded to angular sand with occasional gravel to 1 inch.
350	
360	Silt with Gravel: Tan silt with less than 40% medium colored, fine-grained, well sorted gravel to 3/4 inch.
370	
	- - - - Gravel to 1¼ inches.
380	Silt and Sand: Tan silt and medium colored, very fine-grained, well sorted sand.
390	Gravel with Silt: Dark colored, fine-grained, moderately sorted, angular gravel to ½ inch with less than 30% tan silt; organic matter (roots) present.
400	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-3

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB DATE 2/17/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
400	Gravel with Silt: Dark colored, fine-grained, well sorted, angular gravel to ½ inch, with less than 30% tan silt; organic matter (roots) present.
410	Silt with Gravel: Tan silt with less than 30% dark colored, fine-grained, well sorted, angular gravel to ½ inch.
420	Silt: Tan silt.
430	Silt: Tan silt with less than 5% fine-grained gravel to 3/4 inch.
440	
450	Silt: Tan silt with less than 10% medium colored, very fine- to coarse-grained, poorly sorted, subangular sand.
460	- - - - Organic matter (roots) present.
470	Silt and Sand: Tan silt and dark colored, very fine- to very coarse-grained, poorly sorted, subangular to angular sand.
480	Silt: Tan silt.
490	Gravel with Silt: Dark colored, fine-grained, well sorted, angular gravel to ½ inch with less than 30% tan silt; organic matter (roots) present.
500	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-3

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB DATE 2/18/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
500	Silt: Tan silt with less than 5% coarse-grained sand and fine gravel.
510	
	- - - - Fine-grained gravel increasing.
520	
530	Silt and Sand: Tan silt and medium colored, very fine-grained, well sorted sand.
540	Sand, Gravel and Silt: Medium colored, very fine- to very coarse-grained, poorly sorted, subrounded to subangular sand, and well sorted fine-grained gravel, with less than 30% tan silt.
550	Silt and Sand: Tan silt and medium colored, very fine- to very coarse-grained, poorly sorted, subrounded to angular sand; organic matter (roots) present.
560	
570	
	- - - - Increasing grain size.
580	Sand and Gravel: Dark colored, coarse- to very coarse-grained, well sorted sand; and dark colored, fine-grained, well sorted gravel to 3/4-inch, with less than 10% tan silt.
590	Gravel: Dark colored, fine- to coarse-grained, poorly sorted, subrounded to angular gravel to 2 inches.
600	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-3

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB, JFM DATE 2/18/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
600	Silt: Tan silt.
610	Silt and Sand: Tan silt and medium colored, very fine-grained, well sorted sand.
620	Silt and Sand: Tan silt and medium colored, very fine- to coarse-grained (predominantly very fine-grained), poorly sorted, subrounded to angular sand.
630	Silt and Sand: Tan silt and medium colored, very fine-grained, well sorted sand.
640	
650	Silt and Sand: Tan silt and medium colored, very fine- to very coarse-grained, poorly sorted, subrounded to angular sand.
660	- - - - Increasing silt.
670	Silt: Tan silt.
680	Silt with Gravel: Tan silt with less than 25% medium colored, fine- to coarse-grained, poorly sorted, subrounded to angular gravel to 2 inches.
690	
700	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-3

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY JFM, LB DATE 2/19/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
700	Gravel: Dark colored, fine-grained, well sorted, subrounded to angular, gravel, with less than 5% tan silt.
710	Silt: Tan silt with less than 5% fine- to medium-grained sand.
720	Sand and Gravel and Silt: Medium colored, very fine- to very coarse-grained, poorly sorted, subrounded to subangular, sand, and well sorted, fine-grained gravel, with less than 30% tan silt.
730	Silt: Tan silt with less than 5% fine- to medium-grained sand.
740	
750	
760	Silt with Sand: Tan silt with less than 25% medium colored, very fine- to very coarse-grained, poorly sorted, subrounded to angular, sand.
770	
780	
790	- - - - Decreasing sand.
800	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-3

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY JFM, LB DATE 2/19/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
800	Silt with Sand: Tan silt, with less than 25% medium colored, very fine- to medium-grained, moderately sorted, subangular sand.
810	
820	Silt with Sand and Gravel: Tan silt with less than 25% medium colored, very fine- to very coarse-grained, poorly sorted, subangular to angular sand, and very fine-grained, well sorted gravel.
830	
840	Gravel with Silt: Dark colored, fine-grained, well sorted, angular gravel, with tan silt; organic matter (roots) present.
850	Silt with Sand: Tan silt with less than 25% medium colored, very fine-grained, subrounded to angular sand.
860	Silt with Sand: Tan silt with less than 25% very fine-grained, well sorted sand.
870	Silt with Sand: Tan silt with less than 25% medium colored, very fine- to medium-grained, moderately sorted, subangular sand.
880	
890	Silt with Sand: Tan silt with less than 25% very fine-grained, well sorted sand.
900	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-3

PROJECT NUMBER 78-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY JFM, LB DATE 2/20/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
900	Silt: Tan silt, with less than 5% sand.
910	Silt: Tan silt with less than 15% sand.
920	Silt and Sand: Tan silt and less than 40% medium colored, very fine- to very coarse-grained, poorly sorted, subrounded to angular sand.
930	
940	Silt: Tan silt with less than 5% sand.
950	Sand and Silt: Medium colored, very fine- to very coarse-grained, poorly sorted, subrounded to angular sand, and tan silt.
960	Gravel: Medium colored, fine-grained, well sorted, subangular to angular gravel with less than 5% silt.
970	Silt: Tan silt with less than 10% sand.
980	Silt: Tan silt, with less than 10% sand.
990	
1000	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-3

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB DATE 2/21/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
1000	Silt: Tan silt, with less than 10% sand.
1010	T. D.
20	
30	
40	
50	
60	
70	
80	
90	
00	

TUCKER NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB DATE 3-2-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1214 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
0	Silt: Tan silt.
10	Sand and Silt: Medium colored, poorly sorted, subrounded to subangular, very fine- to medium-grained sand and tan silt.
20	
30	Silt: Tan silt with occasional gravel to 1 inch.
40	Gravel with Silt: Dark colored, moderately sorted, subrounded to subangular, fine-grained to ½-inch gravel, with less than 30% tan silt.
50	Gravel: Dark colored, moderately sorted, subangular to angular (freshly broken by drilling), fine-grained to 1-inch gravel.
60	- - - - increasing percentage of larger gravel.
70	- - - - 10% gray silt present.
80	Gravel: Dark colored, well sorted, subangular, fine-grained (occasional ½-inch) gravel.
90	Gravel: Dark colored, moderately sorted, subangular to angular, fine-grained to 1/3-inch gravel.
100	

USBR NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB DATE 3/2/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1214 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
100	Gravel: Medium and dark colored, poorly sorted, subangular to angular, fine- to coarse-grained (to 2-inch) gravel.
110	
120	Gravel and Silt: Medium colored, poorly sorted, subangular to angular, fine- to coarse-grained (to 3/4-inch) gravel and less than 35% tan silt.
130	Gravel: Medium and dark colored, well sorted, angular, fine-grained to ½-in. gravel; organic matter (plant roots) present.
140	Gravel: Dark colored, well sorted, subangular, fine-grained gravel; organic matter (plant roots) present.
150	Gravel: Dark colored, moderately sorted, subrounded to angular, fine-grained to ½-inch gravel; organic matter (plant roots) present.
160	- - - - increasing angularity.
170	- - - - grain size decreasing.
180	Silt: Tan silt with less than 10% sand and gravel.
190	Silt and Gravel: Tan silt and dark colored, well sorted, subangular to angular, fine-grained gravel; organic matter (plant roots) present.
200	

TUCKER NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12c
LOGGED BY LB DATE 3/3/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1214 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
200	Gravel: Dark colored, well sorted, subangular to angular, fine-grained to ¼-inch gravel, with less than 20% brown silt.
210	Gravel: Dark colored, well sorted, subrounded to angular, fine-grained gravel, with organic matter (roots).
220	
	- - - Size increasing to 1/3 inch.
230	Silt: Brown silt with less than 20% very fine-grained sand; organic matter (roots) present.
240	
250	Silt: Brown silt with less than 5% fine-grained to ¼-inch gravel; organic matter (roots) present.
260	Silt and Gravel: Brown silt and dark colored, well sorted, subrounded to angular, fine-grained to ¼-inch gravel.
270	
280	Silt: Brown silt with less than 10% fine-grained gravel.
290	Gravel: Dark colored, well sorted, subangular to angular, fine-grained to 1/3-inch gravel.
300	

TUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB DATE 3/4/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1214 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
300	Gravel: Medium colored, poorly sorted, subangular to angular, fine-grained to 1-inch gravel, with less than 5% tan silt.
310	Silt: Tan silt with less than 10% fine-grained to 1/3-inch gravel.
320	Gravel and Silt: Medium colored, poorly sorted, rounded to subrounded, fine-grained to 1-3/4-inch gravel and brown silt.
330	Silt: Tan silt with less than 5% fine-grained to ¼-inch gravel.
340	Silt: Tan silt with less than 5% fine-grained to ½-inch gravel.
350	Silt: Tan silt.
360	
370	Silt: Tan silt, with less than 5% fine-grained to ¼-inch gravel.
380	Silt and Sand: Tan silt and medium colored, poorly sorted, subrounded to subangular, very fine- to very coarse-grained sand.
390	- - - - Occasional gravel to 1/3-inch present.
400	

USBR NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB DATE 3/4/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1214 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
400	Silt, Sand, and Gravel: Tan silt and medium colored, poorly sorted, subrounded to subangular, very fine- to very coarse-grained sand, and fine-grained to ¼-inch gravel.
410	
	- - - - Increasing angularity.
420	Gravel: Dark colored, well sorted, subrounded to angular, fine-grained to 1/3-inch gravel.
430	Silt: Brown silt with less than 5% gravel to ¼-inch.
440	
450	Gravel and Silt: Dark colored, well sorted, subrounded to subangular, fine-grained gravel and tan silt.
460	Silt: Brown silt, with less than 5% gravel to ¼-inch.
470	- - - - Organic matter present (roots).
480	- - - - Gravel increasing to 10%.
490	
500	

FLUOR NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB DATE 3-04-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1214 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
500	Silt: Tan silt with less than 15% gravel to ¼-inch.
510	
520	
530	
540	Silt: Tan silt with less than 10% gravel to 3/4-inch.
550	Silt: Tan silt with less than 10% gravel to 1/2-inch.
560	Gravel: Medium and dark colored, moderately sorted, sub-rounded to subangular, very fine-grained to 1-inch gravel, with less than 20% tan silt.
570	Silt: Tan silt, occasional gravel to 1/3-inch.
580	
590	Silt and Sand: Tan silt and very fine-grained sand.
600	

UGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB & JM DATE 3/05/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1214 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
600	Sand and Gravel: Dark colored, poorly sorted, subrounded to angular, very fine- to very coarse-grained sand, and very fine-grained gravel.
610	Silt and Sand: Tan silt and very fine-grained sand.
620	Silt and Sand: Tan silt and dark colored, poorly sorted, subrounded to subangular, very fine- to very coarse-grained sand; occasional gravel to 1/3-inch present.
630	Silt and Sand: Tan silt and very fine-grained sand.
640	
650	
660	Silt and Sand: Tan silt and dark colored, poorly sorted, subrounded to subangular, very fine- to very coarse-grained sand; occasional gravel to ½-inch.
670	
680	Silt and Gravel: Tan silt and medium colored, well sorted, angular, fine-grained to ¼-in. gravel; organic matter (roots) present.
690	Silt and Sand: Tan silt and medium colored, well sorted, very fine-grained sand, with less than 5% gravel present.
700	

TUCSON NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB & JM DATE 3-06-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1214 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
800	Sand: Medium colored, moderately sorted, angular to subangular, fine- to coarse-grained sand, with less than 5% fine-grained gravel to ¼-inch.
810	
820	Sand with Clayey Silt: Medium colored, well sorted, angular, fine- to medium-grained sand, with less than 30% tan colored clayey silt.
830	
840	
	- - - - Increasing clay.
850	Sand with Clayey Silt: Medium colored, well sorted, fine-grained sand with less than 30% tan colored clayey silt. Occasional coarse-grained sand.
860	Gravel with Sand: Medium colored, poorly sorted, angular to subangular, fine- to medium-grained (occasionally up to 1¼-in.) gravel with less than 25% medium- to coarse-grained sand.
870	Clayey Silt and Sand: Tan colored, clayey silt and medium colored, well sorted, fine-grained sand.
880	
890	
900	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB & JM DATE 3-07-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1214 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
900	Clayey Silt with Sand: Tan colored, clayey silt, with less than 40% medium colored, subangular, very fine- to medium-grained sand.
910	
	- - - - - Occasional coarse-grained sand present.
920	
930	Gravel with Sand: Medium to dark colored, poorly sorted, angular to subangular fine-grained gravel up to ½-inch, with less than 30% fine- to very coarse-grained sand and less than 10% clayey silt. Clayey Silt with Sand: Tan colored clayey silt, with less than 40% very fine-grained sand.
940	
950	
960	Sand with Silt: Medium colored, well sorted, fine- to medium-grained sand, with less than 30% tan colored silt.
970	
	- - - - - - Silt decreasing to 20%. Occasional gravel to ½-inch present.
980	Sand with Silt: Medium colored, well sorted, subangular, fine- to medium-grained sand, with less than 10% tan colored silt.
990	
	- - - - - - Gravel up to ½-inch present.
1000	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY JM, LB DATE 3-08-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1214 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
1000	Sand: Medium colored, well sorted, subangular to angular, fine- to medium-grained sand, with less than 10% tan silt.
1010	
	- - - - - Grain size increasing.
1020	
1030	Gravel: Dark colored, well sorted, angular, fine-grained gravel to ½-inch, with less than 10% sand; organic matter (roots) present.
1040	Sand with Clayey Silt: Medium colored, moderately sorted, angular to subangular, fine- to medium- (predominantly fine) grained sand, with less than 35% tan colored clayey silt.
1050	
1060	Sand with Clayey Silt: Medium colored, moderately sorted, angular to subangular, fine- to coarse-grained (predominantly fine- to medium-grained) sand, with less than 25% clayey silt.
1070	
1080	Gravel with Sand: Medium colored, poorly sorted, angular to subangular, fine-grained to 1/3-in. gravel, with less than 35% fine- to coarse-grained (predominantly medium- to coarse-grained) sand. Silt and Sand: Tan silt and medium colored, well sorted sub-angular, very fine-grained sand, with less than 5% very fine-grained gravel.
1090	Clayey Silt and Sand: Tan clayey silt and medium colored, poorly sorted, angular to subangular, fine-grained (occasionally medium- to coarse-grained) sand.
1100	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB, JM DATE 3-09-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1214 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
1100	Clayey Silt and Sand: Tan clayey silt and medium colored, poorly sorted, subangular to angular, fine- to coarse-grained (predominantly fine-grained) sand.
1110	Gravel: Dark colored, moderately sorted, angular to subangular, fine-grained to ½-inch gravel, with less than 10% coarse sand.
1120	Gravel: Medium to dark colored, well sorted, subangular to angular, fine-grained gravel up to 1 inch, with less than 5% coarse sand.
1130	Sand with Silt: Medium colored, moderately sorted, angular to subangular, fine- to coarse- (predominantly fine to medium) grained sand, with less than 30% silt.
1140	
1150	
1160	Sand with Silt: Medium colored, moderately sorted, angular to subangular, fine- to medium-grained sand, with less than 30% tan colored silt and occasional coarse sand grains.
1170	Sand and Gravel: Medium colored, poorly sorted, angular to subangular, fine- to coarse-grained (predominantly fine- to medium-grained) sand, and dark colored, angular to subangular, fine- to medium-grained gravel up to 1 inch.
1180	Sand with Gravel: Medium to dark colored, moderately sorted, angular to subangular, fine- to coarse-grained sand, with less than 25% fine-grained gravel up to 1/3 inch.
1190	Sand with Silt: Medium colored, well sorted, subangular, fine- to medium-grained sand, with less than 25% tan silt, with occasional fine-grained gravel up to ¼ inch.
1200	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Delamar
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY LB DATE 3-10-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1214 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
1200	Sand with Silt: Medium colored, well sorted, subangular, fine- to medium-grained sand, with less than 25% tan silt and occasional fine-grained gravel up to ¼ inch.
1210	T.D.
20	
30	
40	
50	
60	
70	
80	
90	
00	

BECHTEL NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED 0-40' Bucket Auger/ 90-1300' ~~Reverse Rotary~~
COMPANY Beylik
OPERATOR Jim Clyde

VALLEY NAME Dry Lake
LOCATION NUMBER T3S, R64E, Sect. 12ca
LOGGED BY JM & SC DATE 1-8-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
0	Silt: Tan silt with occasional gravel to 1½".
10	Silt: Tan Silt
20	Silt & Sand with Gravel: Tan silt with ± 25% med colored, fine to coarse, poorly sorted, subrounded to subangular sand, with ± 10% med colored subrounded to angular gravel to 1½".
30	Gravel with Cobbles - Med to dark colored, subrounded to subangular ½" gravel up to cobbles to 4".
40	Fine Gravel with Sand: Brown color, well sorted, subrounded gravel with less than 25% coarse sand, gravel up to 3/4".
50	Gravel with Coarse Sand: Brown color, subangular, well sorted gravel up to 3/4" with coarse, angular sand (less than 25%).
60	Gravel with Sand: Brown color, well sorted, subrounded gravel up to 1½" with less than 25% coarse sand.
70	Gravel with Sand: Same as above (60').
80	Coarse Sand with Gravel: Dark color, well sorted, subrounded sand with less than 25% gravel up to ½".
90	Fine to Medium Gravel with Sand: Brown color, well sorted, subrounded gravel with less than 10% coarse sand.
100	Gravel with Sand: Dark color, well sorted, subangular gravel up to 3/4" with less than 30% coarse sand.

FUGRO NATIONAL, INC.

DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-2

PROJECT NUMBER 79-290- 45

PROJECT NAME MX SITING INVESTIGATION

EQUIPMENT USED Reverse Circulation

COMPANY Beylik

OPERATOR J. Clyde

VALLEY NAME Dry Lake

LOCATION NUMBER T35, R64E, Sect. 12ca

LOGGED BY S C & JM DATE 1-8-80

CHECKED BY JAG DATE 4-10-80

TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
100	Gravel with Coarse Sand: Dark color, well sorted, subangular, max gravel 1" with less than 25% coarse sand.
110	Gravel with Coarse Sand: Same as above (100'-110'). Max size for gravel ½".
120	Gravel with Coarse Sand: Same as above (100'-120'). Max gravel 1½".
130	Gravel with Coarse Sand: Less than 25% sand. Max gravel 1½". Most less than 1".
140	Gravel with Coarse Sand: Less than 10% sand. Same as above (130-140').
150	Gravel with Coarse Sand: Dark, subrounded, well sorted max size 1" gravel with less than 40% very coarse, subangular sand.
160	Gravel with Coarse Sand: Brown, subrounded, well sorted gravel with less than 25% coarse sand. Max size 3/4".
170	Gravel with Coarse Sand: Brown, subangular, well sorted gravel with less than 25% coarse sand. Max size 3/4".
180	Gravel with Coarse Sand: Much coarser than 170-180', 33% of sample greater than 1" size. Brown subrounded, subangular, well sorted with less than 10% sand.
190	Very Coarse Gravel with Coarse Sand: Dark, well sorted subangular. Greater than 2" sized gravel. Less than 5% coarse sand.
200	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-2

PROJECT NUMBER 79-290- 45	VALLEY NAME Dry Lake
PROJECT NAME MX SITING INVESTIGATION	LOCATION NUMBER T3S, R64E, Sect. 12ca
EQUIPMENT USED Reverse Circulation	LOGGED BY JM & SC DATE 1-8-80
COMPANY Beylik	CHECKED BY JAG DATE 4-10-80
OPERATOR J. Clyde	TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
200	Gravel with Coarse Sand: Brown, well sorted, subangular gravel. Max size 1" with less than 40% subangular, coarse sand.
210	Gravel with Coarse Sand: Gray, subangular, well sorted. Max size 1½". Less than 10% subangular, coarse sand.
220	Gravel with Coarse Sand: Gray-black, subangular, well sorted. Max size 2½". Less than 10% coarse, subangular sand.
230	Gravel with Coarse Sand: Gray-black, subangular, well sorted. Max size 1". Less than 40% subrounded, coarse sand.
240	Gravel with Sand and Some Clay: Subangular, poorly sorted, max gravel size 3/4". Less than 10% sand. Less than 20% silt and clay.
250	Gravel with Coarse Sand: Gray-brown, subangular, well sorted, max size 1". Less than 20% coarse sand.
260	Gravel with Coarse Sand: Gray, subangular, well sorted. Max size 2½" gravel. Less than 20% coarse, subangular sand.
270	Gravel with Sand and Silt: Gray color, subangular, poor to medium sorted, max ½" gravel. Less than 25% fine- to coarse-grained sand. Less than 5% silt.
280	Gravel with Coarse Sand: Gray color, subangular, well sorted. Max 3/4" gravel. Less than 20% coarse, subangular sand.
290	Gravel with Coarse Sand: Gray, subangular, well sorted, max size gravel 1". Less than 20% subangular coarse sand.
300	

[redacted] NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Circulation
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake
LOCATION NUMBER T3S, R64E, Sect. 12 ca
LOGGED BY JM & SC DATE 1/8/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
300	Fine Gravel with Coarse Sand: Gray-brown, subrounded, well sorted, max size ½". Less than 40% coarse, subrounded sand.
310	
320	Gravel with Coarse Sand: Gray-brown, subrounded, well sorted, max size ½" gravel, less than 40% coarse, subrounded sand.
	Gravel with Coarse Sand: Well sorted, brown gray, subrounded, max ½" gravel with less than 30% coarse, subrounded sand.
330	
340	Gravel with Sand, Silt & Clay: Poorly sorted, gray-black, subangular to subrounded, less than 40% sand. Less than 10% silt and clay, ½" gravel.
350	Gravel with Sand, Silt & Clay: Poorly sorted, brown subangular-subrounded. 40% sand, 10% silt and clay, ½" gravel.
360	Gravel with Trace Sand, Silt & Clay: Less than 20% sub-gravel size, gray-black, subangular, poorly sorted ½" gravel.
370	Gravel with Medium to Coarse Sand: Brown-black, subrounded-subangular well sorted less than 30% sand.
380	Gravel: Poorly sorted, ½" gravel, subangular, less than 20% coarse sand.
390	Gravel: Medium sorted, gray-black-brown, subangular, less than 10% sand, ½" gravel.
400	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-2

PROJECT NUMBER 79-290- 45

PROJECT NAME MX SITING INVESTIGATION

EQUIPMENT USED Reverse Circulation

COMPANY Beylik

OPERATOR J. Clyde

VALLEY NAME Dry Lake

LOCATION NUMBER T3S, R64E, Sect. 12ca

LOGGED BY JM & SC DATE 1/14/80

CHECKED BY JAG DATE 4/10/80

TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
400	Gravel with Sand, Silt & Clay: Poorly sorted, gray-black, subangular-subrounded, less than 30% sand, 20% silt and clay, ½" gravel.
410	Gravel with Sand, Silt & Clay: Poorly sorted, subangular to subrounded, gray-black, less than 20% sand, less than 10% silt and clay.
420	Gravel with Sand, Silt & Clay: Poorly sorted, subangular, brown-gray, less than 40% sand, less than 10% silt and clay, 2½" gravel.
430	Gravel with Sand, Silt & Clay: Poorly sorted, brown-black, subangular, 3/4" gravel, less than 20% sand, less than 10% silt and clay.
440	Gravel with Sand, Silt & Clay: Poorly sorted, blue-black, subangular, 3/4" gravel, less than 15% sand, less than 10% silt and clay.
450	Gravel with Sand, Silt & Clay: Poorly sorted, subangular, gray-black, ½" gravel, less than 40% sand, less than 10% silt and clay.
460	Gravel with Sand, Silt, & Clay: Poorly sorted, subangular, gray-brown, ½" gravel, less than 40% sand, 10% silt and clay.
470	Gravel with Sand, Silt and Clay: Brown-gray poorly sorted subrounded, max 2" gravel, less than 20% sand, less than 10% silt and clay.
480	Gravel with Sand and Clay: Gray-black colored, poorly sorted subangular gravel with less than 30% coarse to fine-grained sand with less than 10% silty clay. Max grain size 3/4".
490	Gravel with Sand: White, gray-black colored moderately sorted subangular gravel with less than 20% coarse subangular sand grains. Maximum grain size 1".
500	

FUGRO NATIONAL, INC.

DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-2

PROJECT NUMBER 79-290-45

PROJECT NAME MX SITING INVESTIGATION

EQUIPMENT USED Reverse Circulation

COMPANY Beylik

OPERATOR J. Clyde

VALLEY NAME Dry Lake

LOCATION NUMBER T3S, R64E, Sect. 12ca

LOGGED BY JM & SC DATE 1-14-80

CHECKED BY JAG DATE 4-10-80

TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
500	Gravel with Sand: Gray, black colored moderately sorted subrounded to subangular gravel with less than 15% coarse subangular sand. Maximum gravel size approximately 2".
510	Gravel with Trace Coarse Sand: Brown, subangular, well sorted, gravel to 1½", less than 10% sand.
520	Gravel with Trace Sand and Silt: Same as 510' with less than 10% sand and silt.
530	Gravel with Trace Coarse Sand: Same as 510'.
540	
550	Gravel with Sand and Silt: Brown-gray, subangular, moderate sorting. Less than 25% sand and silt.
560	Gravel with Trace Coarse Sand: Same as 510'.
570	
580	
590	
600	

TERRA NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Mud Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake
LOCATION NUMBER T3S, R64E, Sect. 12ca
LOGGED BY SC & JM DATE 1/15/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
600	
610	Gravel with Trace Coarse Sand: Brown, subangular, well sorted, gravel to 1½", less than 10% sand.
620	
630	Gravel with Trace Coarse Sand: Same as 610', but max size ½".
640	Gravel with Sand and Silt: Brown, subangular, poorly sorted, less than 30% sand, less than 10% silt, gravel size to ½".
650	
660	
670	
680	
690	
700	

JACOBS NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Mud Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake
LOCATION NUMBER T3S, R64E, Sect. 12 ca
LOGGED BY SC DATE 1/17/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
700	Gravel with Some Coarse Sand: Brown, subangular, well sorted gravel size to 3/4", less than 20% sand.
710	Gravel with Some Coarse Sand: Same as 700' but with gravel to 2".
720	Gravel with Some Coarse Sand: Same as 700'.
730	Gravel with Sand, Silt, & Clay: Brown, subangular gravel to ½" size with 20% sand, 20% silt & clay.
740	Gravel with Some Coarse Sand: Same as 700'.
750	Gravel with Trace Coarse Sand: Same as 700' but less than 10% sand, & gravel to 3".
760	Gravel with Trace Coarse Sand: Same as 750'.
770	Gravel with Some Coarse Sand: Same as 700'.
780	
790	
800	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW2

PROJECT NUMBER 79-290- 45

PROJECT NAME MX SITING INVESTIGATION

EQUIPMENT USED Reverse Rotary

COMPANY Beylik

OPERATOR J. Clyde

VALLEY NAME Dry Lake

LOCATION NUMBER T3S, R64E, Sect. 12ca

LOGGED BY SC & JM DATE 1-18-80

CHECKED BY JAG DATE 4-10-80

TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
800	Coarse Sand Trace Gravel & Silt: Brown subangular, well sorted, coarse sand, less than 10% gravel, less than 10% silt.
810	Gravel with Some Coarse Sand: Brown, subangular, well sorted, gravel size to 1", 20% sand.
820	
830	
840	
850	
860	
870	
880	
890	
900	

FUGRO NATIONAL, INC.

DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW2

PROJECT NUMBER 79-290- 45

PROJECT NAME MX SITING INVESTIGATION

EQUIPMENT USED Reverse Rotary

COMPANY Beylik

OPERATOR J. Clyde

VALLEY NAME Dry Lake

LOCATION NUMBER T3S, R64E, Sect. 12 ca

LOGGED BY JM & SC DATE 1-19-80

CHECKED BY JAG DATE 4-10-80

TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
900	Sand with Some Gravel & Silt: Brown subangular, poorly sorted, sand with 10% silt & clay, 20% gravel.
910	
920	
930	
940	Gravel with Trace Coarse Sand: Brown subangular, well sorted, gravel to 3/4", 10% sand.
950	
960	
970	
980	
990	
1000	

UNRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake
LOCATION NUMBER T3S, R64E, Sect. 12 ca
LOGGED BY JM & SC DATE 1-20-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
1000	
1010	Gravel with Cobbles: Dark colored, poorly sorted subangular to angular (predominantly angular) gravel with less than 5% broken cobbles up to 3".
1020	Gravel with Cobbles: As above (1010'),more darker rocks, medium to dark color.
1030	Gravel with Sand: Medium color,poorly sorted,subangular to angular gravel up to 1", with less than 20% fine-to coarse-grained,angular to subangular sand.
1040	Gravel: Medium color,poorly sorted,subangular to angular gravel with 20% cobbles up to 2½", with 20% medium to coarse,subangular to angular sand.
1050	Gravel: Light to dark colored, poorly sorted, subrounded to angular gravel up to 1½".
1060	Gravel with Sand: Light to dark color, medium sorted, subangular to angular gravel up to 3/4".
1070	Gravel: Medium to dark color,well sorted, angular to subangular fine-grained gravel up to ¼".
1080	Gravel with Sand: Medium to dark color,poorly sorted, subangular to angular gravel up to 1" with less than 25% coarse-to medium-grained,subangular to angular sand.
1090	
1100	Gravel:as above (1080'), but medium sorted.

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake Valley
LOCATION NUMBER T3S, R64E, Sect. 12ca
LOGGED BY JM & LB DATE 1-21-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
1100	
1110	Gravel: Dark colored, well sorted, angular gravel up to 3/8".
1120	Gravel: Medium color, poorly sorted, subrounded to angular gravel up to ½" with less than 20% sand.
1130	Gravel with Sand: Light to dark color, poorly sorted, subrounded to rounded gravel up to 1" with 20% coarse to fine sand.
1140	Gravel with Sand: As above (1130') with occassional broken cobbles up to 4".
1150	Gravel with Sand: Medium to dark color, medium sorted subangular to angular gravel up to 1" with less than 20% medium to coarse sand.
1160	Gravel with Sand: Light to dark color, well sorted angular to subangular, fine gravel with 20% coarse sand.
1170	Gravel: Medium color, poorly sorted, subangular to angular, fine to 1½" gravel.
1180	
1190	Gravel: Dark colored, poorly sorted, angular to subangular fine up to 2" gravel.
1200	

[redacted] NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW2

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake
LOCATION NUMBER T3S, R64E, Sect. 12ca
LOGGED BY JM & LB DATE 1-22-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
1200	
1210	Gravel: Medium to dark color, poorly sorted angular to subangular, fine up to 1½" gravel.
1220	Gravel: Medium to dark color, medium sorted, subrounded to subangular, fine to ½" gravel.
1230	
1240	Sand with Gravel: Light to medium color, medium sorted, subrounded to subangular, medium to coarse sand with less than 10% gravel up to ½".
1250	Sand and Gravel: Light to dark color, well sorted, angular to subangular, fine gravel with 50% coarse sand.
1260	Gravel with Sand: Light to medium colored medium sorted, subangular to angular gravel with less than 25% coarse sand.
1270	Gravel: Light to dark colored, well sorted, angular to subangular gravel up to 3/8".
1280	Sand & Gravel: Light to dark colored, well sorted, angular to subangular, fine gravel with ± 50% coarse sand.
1290	Gravel with Sand: Medium to dark colored, poorly sorted, angular to subangular gravel up to 3/4" with ± 25% coarse sand.
1300	

UGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Bucket Auger 0'-40' Reverse Rotary 40' - TD
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake
LOCATION NUMBER T6S, R63E, Sec. 12d
LOGGED BY JM DATE 2-6-80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
0	Silt: Tan silt with occasional gravel up to 1½".
10	Silt: Tan silt.
20	Silt: Tan silt with less than 25% medium colored, fine- to coarse-grained, poorly sorted, subrounded to subangular sand with less than 10% gravel up to 1½".
30	Gravel with Cobbles: Medium to dark colored, subrounded to subangular, medium gravel with cobbles up to 4".
40	Gravel: Medium colored, moderately sorted, angular to subrounded, fine to coarse gravel up to 1¼".
50	- - - Gravel up to 1".
60	Gravel: Medium colored, moderately sorted, subangular to subrounded, fine to coarse gravel up to 1½" with less than 5% coarse-grained sand.
70	- - - Gravel up to 3/4".
80	
90	- - - Gravel up to 1¼".
100	

UGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake
LOCATION NUMBER T6S, R63E, Sect. 12d
LOGGED BY JFM DATE 2-6-80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
100	Gravel: Dark brown colored, well sorted, subangular to subrounded, gravel up to ½".
110	
	- - - - Very well sorted gravel up to ¼".
120	
	- - - - Gravel up to 3/4".
130	
	Gravel: Light to dark colored, very well sorted, subangular to subrounded gravel up to ¼".
140	
	Gravel: Light to dark colored,poorly sorted,subangular to subrounded gravel with occasional cobbles up to 2". Less than 20% medium- to coarse-grained sand.
150	
	Gravel: Light to dark colored, well sorted, subangular to subrounded, fine to medium gravel, occasionally up to 1", with less than 10% coarse-grained sand.
160	
	Gravel with Cobbles: Light to dark colored, poorly sorted, angular to subrounded, fine to coarse gravel, with cobbles up to 3" and less than 5% coarse-grained sand.
170	
180	
	Gravel: Light to dark colored, moderately sorted, subangular to subrounded, fine to coarse gravel, with occasional cobbles up to 1½" and less than 5% coarse sand.
190	
	- - - - Cobbles up to 2".
200	

TUBO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake
LOCATION NUMBER T6S, R63E, Sec. 12d
LOGGED BY JFM DATE 2-06-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
200	Gravel: Light to dark colored, poorly sorted, angular to subangular, fine to coarse gravel with less than 20% cobbles up to 2½" and less than 5% coarse-grained sand.
210	Gravel: Light to dark colored, moderately sorted, angular to subangular, fine to coarse gravel, with occasional cobbles up to 4" and less than 5% medium- to coarse-grained sand.
220	Gravel: Light to dark colored, well sorted, subangular to subrounded, fine to coarse gravel up to 2½", with less than 10% medium- to coarse-grained sand.
230	Gravel: Light to dark colored, moderately sorted, subangular to subrounded, fine to coarse gravel up to 1", with less than 10% medium- to coarse-grained sand.
240	- - - - Gravel up to 2".
250	
260	Sand: Medium colored, well sorted, fine-grained sand, with less than 25% medium-grained sand to coarse gravel up to 2".
270	Gravel: Medium to dark colored, medium sorted, subangular to subrounded, fine to coarse gravel up to 2½", with less than 10% coarse-grained sand.
280	Gravel with Sand: Medium to dark colored, poorly sorted, subrounded to angular, fine to coarse gravel up to 1½", and approximately 25% medium colored, fine- to coarse-grained sand.
290	Gravel: Medium to dark colored, moderately sorted, subrounded to subangular, fine to medium gravel up to ½", with approximately 10% fine- to coarse-grained sand.
300	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake
LOCATION NUMBER T6S, R63E, Sec. 12d
LOGGED BY LB DATE 2-07-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
300	Gravel: Medium to dark colored, moderately sorted, subrounded to angular, fine to medium gravel up to 1/3", with approximately 10% fine- to coarse-grained sand.
310	Gravel: Medium to dark colored, poorly sorted, subangular to angular, fine to 2½" gravel.
320	Gravel: Dark colored, poorly sorted, subrounded to angular, fine to 2" gravel (less than 10% sand).
330	Gravel: Dark colored, poorly sorted, subrounded to angular, fine to 2½" gravel (less than 5% sand).
340	Gravel with Sand: Dark colored, poorly sorted, subangular to angular, fine to 2" gravel, with less than 20% medium colored, medium-to coarse-grained sand.
350	Gravel: Dark colored, poorly sorted, subangular to angular, fine to 3/4" gravel with less than 10% sand.
360	Gravel: Dark colored, moderately sorted, subangular to angular, fine to ½" gravel.
370	Gravel: Dark colored, poorly sorted, subangular to angular (predominantly angular), fine to 1" gravel.
380	Gravel: Dark colored, poorly sorted, subangular, fine to ½" gravel (with less than 10% sand).
390	Gravel: Medium to dark colored, poorly sorted, subangular to angular, 1/3"-diameter gravel with less than 15% sand.
400	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake
LOCATION NUMBER T6S, R63E, Sec. 12d
LOGGED BY LB, JM DATE 2-07-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
400	Gravel: Light to dark color, medium sorted, subangular to subrounded gravel up to ¼" with less than 15% medium- to coarse-grained sand.
410	Gravel with Sand & Clay: Medium colored, poorly sorted, subangular to subrounded gravel up to 3/8", with less than 50% fine- to coarse-grained sand and clay.
420	
430	Gravel: Medium to dark colored, well sorted, subangular to subrounded gravel up to ½", with less than 20% coarse-grained sand.
440	- - - Gravel up to 1".
450	- - - Less than 10% coarse sand.
460	Gravel with Sand: Light to dark colored, poorly sorted, subangular to subrounded, fine to coarse gravel up to 1", with less than 30% fine to coarse-grained sand.
470	Gravel with Sand: Medium to dark colored, poorly sorted, subrounded to subangular, fine to 1" gravel with less than 25% medium- to coarse-grained sand.
480	
490	- - - Gravel up to 3/4".
500	

UCRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake
LOCATION NUMBER T6S, R63E, Sec. 12d
LOGGED BY LB, JFM DATE 2/08/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
500	Gravel with Sandy Silt: Medium to dark colored, poorly sorted, subrounded to angular, fine to 1" gravel with less than 30% tan colored, coarse-grained sand to silt.
510	Gravel: Medium to dark colored, moderately sorted, angular, fine to 1½" gravel.
520	- - - 5% fine- to coarse-grained sand.
530	
540	Gravel: Light to dark colored, poorly sorted, angular to subangular, fine to 2¼" gravel with less than 10% sand.
550	Gravel: Medium to dark colored, poorly sorted, angular to subangular, fine to 1" gravel with less than 25% medium colored, fine- to coarse-grained sand.
560	Gravel and Sand: Medium to dark colored, poorly sorted, angular to subangular, fine to ½" gravel with less than 40% medium to dark colored sand.
570	Gravel: Medium to dark colored, poorly sorted, angular to subangular, fine to 1" gravel with less than 20% fine- to coarse-grained sand.
580	Gravel: Dark colored, moderately sorted, subrounded to subangular gravel with less than 10% sand.
590	- - - Sand content up to about 25%.
600	

TUCKER NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake
LOCATION NUMBER T6S, R63E, Sec. 12d
LOGGED BY LB DATE 2-08-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
600	Sand and Gravel with Silt: Dark colored, moderately sorted, fine-grained to ½" sand and gravel with less than 50% tan silt.
610	Gravel: Dark colored, moderately sorted, subangular to angular, fine to 1" gravel.
620	Gravel: Dark colored, moderately sorted, subrounded to sub-angular, fine to 2" gravel with less than 10% sand.
630	Gravel: Dark colored, moderately sorted, subangular to angular, fine to 1" gravel with less than 5% coarse-grained sand.
640	Gravel: Dark colored,poorly sorted, subangular to angular (predominantly angular), fine to 2" gravel.
650	Gravel: Medium to dark colored, well sorted, subangular to angular, fine to 1/3" gravel.
660	Gravel: Medium to dark colored, poorly sorted, subangular to angular (predominantly angular), fine to 1½" gravel, with less than 10% sand.
670	Gravel: Medium to dark colored, moderately sorted, subangular to angular, fine to 1/3" gravel.
680	- - - Increasing fine-grained gravel.
690	Gravel: Medium to dark colored, well sorted, subrounded to angular, fine to ½" gravel.
700	

TUCKO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake
LOCATION NUMBER T6S, R63E, Sec. 12d
LOGGED BY LB, JFM DATE 2/09/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
700	
710	Gravel: Dark colored, well sorted, subangular to angular, fine to 1½" gravel.
720	Gravel: Dark colored,well sorted,subangular to angular (predominantly angular), fine to 1" gravel.
730	Gravel: Dark colored, poorly sorted, subangular, fine to medium gravel up to ½" with less than 25% fine- to coarse-grained sand.
740	Gravel: Dark colored, poorly sorted, angular to subangular, fine to medium gravel up to 1" with less than 10% fine- to coarse-grained sand.
750	Gravel: Medium to dark colored, poorly sorted, angular to subangular, fine to medium gravel, occasionally up to 1½", with less than 10% fine- to coarse-grained sand.
760	Gravel: Medium to dark colored, moderately sorted, angular to subangular, fine to medium gravel up to 3/4" (predominantly fine gravel), with less than 10% medium- to coarse-grained sand.
770	Gravel with Sand: Medium to dark colored, poorly sorted, angular to subangular, fine to medium gravel up to 3/4" with less than 35% fine- to coarse-grained sand.
780	Gravel: Medium to dark colored, moderately sorted, angular to subangular, fine to medium gravel up to ½" with less than 10% medium- to coarse-grained sand.
790	Gravel: Medium to dark colored, moderately sorted, angular to subangular, fine to medium gravel up to 1" (predominantly 1/8" to 1/4").
800	

TUCSON NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake
LOCATION NUMBER T6S, R63E, Sec. 12d
LOGGED BY JFM DATE 2-10-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
800	Gravel: Light to dark colored, moderately sorted, angular to subangular, fine to medium gravel up to 1".
810	Gravel: Medium to dark color, poorly sorted, angular to subangular, fine to medium gravel (predominantly less than ⅛" and up to 3/4"), with less than 10% coarse-grained sand.
820	Gravel: Medium to dark color, well sorted, angular to subangular, fine to medium gravel (predominantly fine, occasionally up to ½"), with less than 10% coarse-grained sand.
830	Gravel: Dark colored, moderately sorted, angular to subangular, fine to medium with occasional coarse gravel up to 2-3/4", with less than 5% coarse-grained sand.
840	Gravel: Medium to dark colored, poorly sorted, angular to subangular, fine to medium, occasionally up to 1".
850	
860	- - - - Gravel up to 1½", with less than 5% coarse sand.
870	Gravel: Medium to dark colored, moderately sorted, angular to subangular, fine to medium gravel up to 1" with less than 5% coarse-grained sand.
880	Gravel: Medium to dark colored, moderately sorted, angular, fine to medium gravel up to 1¼".
890	Gravel: Medium to dark colored, moderately to well sorted, angular to subangular, fine to medium gravel up to 3/4".
900	

USGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake (DL)
LOCATION NUMBER T6S, R63E, Sec. 12d
LOGGED BY JFM, LB DATE 2/10/80
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
900	Gravel: Medium to dark colored, well sorted, angular to subangular, fine gravel up to ¼", with less than 5% coarse-grained sand.
910	Gravel: Medium to dark colored, well sorted, angular to subangular, fine to medium gravel, occasionally up to 1", with less than 5% coarse-grained sand.
920	Gravel: Medium to dark colored, moderately well sorted, angular to subangular, fine to medium gravel up to 3/8", with less than 5% coarse-grained sand.
930	
940	Gravel and Sand: Dark colored, well sorted, subangular to angular, fine gravel and coarse-grained sand.
950	Gravel: Dark colored, poorly sorted, subangular to angular, fine to 2" gravel, with less than 10% medium- to coarse-grained sand.
960	
970	Gravel: Dark colored, well sorted, subrounded to subangular, fine to 1/3" gravel, with less than 20% fine- to coarse-grained sand.
980	Gravel: Dark colored, poorly sorted, subrounded to angular, fine to 3" gravel, with less than 10% sand.
990	Gravel: Dark colored, moderately well sorted, subangular to angular, fine to 1½" gravel, with less than 5% sand.
1000	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER TW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME Dry Lake
LOCATION NUMBER T6S, R63E, Sec. 12d
LOGGED BY JFM, LB DATE 2-10-80
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1010 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
1000	Gravel and Cobbles: Medium to dark colored, poorly sorted, subangular to angular gravel to 3". Broken cobbles to 6".
1010	T.D.: 1010'
20	
30	
40	
50	
60	
70	
80	
90	
00	

ENVIRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED 0-40' Bucket Auger; 40'-TD Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME White River
LOCATION NUMBER T8N, R61E, Sect. 27 dc
LOGGED BY JFM DATE 11/29/79
CHECKED BY JAG DATE 4/10/80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
0	Silt: White, high calcium content (hard-pan).
10	Silt: Same as above (0-10'), slightly darker (light tan color).
20	
30	
40	Silt: Light tan silt, with less than 25% light colored, well sorted, fine-grained sand.
50	Sand with Silt: Light colored, fine- to medium-grained, subrounded, poorly sorted sand with less than 40% silt.
60	Sand with Silt: Same as above (50-60'), lighter colored (light tan).
70	Sand: Light colored, medium-grained, subrounded to subangular, moderately well sorted sand with less than 25% silt.
80	Clay with Silt: Light tan to white colored clay with less than 40% silt.
90	Clayey Silt: Tan colored clay with less than 40% silt and less than 20% fine-grained, subrounded, well sorted sand.
100	

HYDRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME White River
LOCATION NUMBER T8N, R61E, Sect. 27dc
LOGGED BY JFM & JAG DATE 11-29-79
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
100	Sand with Silt: Tan colored, fine-grained, subrounded to subangular, well sorted sand, with less than 30% silt.
110	Sand with Silt: Light brown, fine- to medium-grained with occasional coarse grains, subrounded to subangular, moderately sorted sand with less than 30% silt.
120	Clay with Silt: Cream colored clay with less than 40% silt.
130	Clay: Light tan colored clay.
140	Sand with Clay and Gravel: Light brown, fine- to coarse-grained, subangular, poorly sorted sand, with less than 30% clay and less than 30% gravel.
	Clay: Tan colored clay.
150	Sand: Light brown, fine- to coarse-grained, subangular, poorly sorted sand with less than 20% clay.
160	- - - - Clay content increasing to about 35%.
170	- - - - Sand becoming more angular with occasional gravel.
180	Sand: Dark colored, fine-grained, subangular, well-sorted sand with about 10% light brown clay and silt.
190	
200	

TUORO NATIONAL, INC.

DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-1

PROJECT NUMBER 79-290- 45	VALLEY NAME White River
PROJECT NAME MX SITING INVESTIGATION	LOCATION NUMBER T8N, R61E, Sect. 27dc
EQUIPMENT USED Reverse Rotary	LOGGED BY JAG DATE 11-30-79
COMPANY Beylik	CHECKED BY JAG DATE 4-10-80
OPERATOR J. Clyde	TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
200	Clayey Silt: Light brown clayey silt with occasional fine-grained sand.
210	Sand: Dark colored, fine-grained, well sorted, subangular to angular sand with about 15%-20% clayey silt(as above, 200-209'). Clay and Sand Interbeds: Light brown, blocky clay with about 5% fine-grained sand and silt. Thin interbeds (25% of total) of dark colored, fine- to coarse-grained, angular sand, and light brown silt.
220	
230	
240	
250	Sand with Clay Interbeds: Dark colored, fine-grained, angular to subangular sand with light brown interbeds of clay and some silt.
260	- - Sand becoming fine- to coarse-grained.
	- - Clay interbeds have 10% fine-grained sand.
270	
280	Silt: Light brown consolidated silt with 10 to 15% dark colored, fine- to coarse-grained, subangular sand, and minor light brown clay.
290	
300	

FUGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME White River
LOCATION NUMBER T8N, R61E, Sect. 27dc
LOGGED BY JAG, JFM DATE 11-30-79
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
300	Sand: Light and dark colored, medium-grained, subangular, well sorted sand with 10% light brown silt and fine-grained sand.
310	Silt: As above (278-300') but slightly more interbedded clay.
320	- - - - Silt becoming slightly coarser-grained.
330	- - - - Silt changing from light brown to pale green.
340	Sand: Dark colored, fine- to medium-grained, angular to subrounded, well sorted sand, with 5-10% light brown silt.
350	
360	- - - - Thin interbeds of light brown silt increase to 20% of total.
370	Silt: Light colored silt, with less than 20% fine- to medium-grained, subangular, poorly sorted light colored sand.
380	Sand with Clay: Dark colored, medium-grained, subangular, well sorted sand with less than 30% light colored clay.
390	Sand: Dark colored, medium- to coarse-grained, subrounded, well sorted sand. Clay with Sand: Light colored clay, with less than 40% medium-grained, subangular, moderately sorted sand. Clay with Silt: Light colored clay with less than 30% silt.
400	

WOOD NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME White River
LOCATION NUMBER T8N, R61E, Sect. 27dc
LOGGED BY JFM DATE 11-30-79
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1300'

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
400	
	Clay: Light colored.
410	
	Clay with Sand: Gray colored clay with less than 30% medium-grained, subrounded, well sorted sand.
	Less than 5% sand.
420	
	Clay: Light colored clay with less than 10% fine- to medium-grained, subangular, moderately sorted sand.
430	
	Clay: Gray colored, hard clay.
440	
	Clay: Light colored clay with less than 20% fine- to medium-grained, subrounded to subangular, moderately sorted sand.
450	
	Clay: Gray colored clay with occasional sand. Gray with interbeds of blue-green clay.
460	
	Clay: Green colored clay interbeds.
470	
	Clay: Gray color.
480	
	Clay: Light tan color.
490	
500	

TUCSON NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME White River
LOCATION NUMBER T8N, R61E, Sect. 27dc
LOGGED BY LB DATE 12-1-79
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
500	Clay: Gray color clay with occasional streaks of brown clay.
510	Silt with Sand: Tan colored silt with less than 25% fine- to medium-grained, subangular, poorly sorted sand. Occasional interbeds of gray-green silt.
520	- - - Sand becoming coarser-grained.
530	Silt: Light gray silt with less than 5% sand with occasional interbeds of green clay.
540	Clay and Silt with Sand: Brown clay, thinly interbedded with light green silt, with sand (as above, 510-520').
550	Clay: Light brown colored clay.
560	
570	
580	Clay and Silt: Gray silt interbedded with brown clay.
590	Silt: Brown silt with occasional interbeds of gray silt.
600	

JUNO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME White River
LOCATION NUMBER T8N, R61E, Sect. 27dc
LOGGED BY LB, JFM DATE 12-1-79
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
600	Clay: Light brown clay with occasional interbeds of gray clay.
610	
620	Clay: Light brown clay with occasional interbeds of dark gray clay.
630	Silt: Light brown silt with a few interbeds of gray clay.
640	Silt: Light brown silt with a few interbeds of gray clay.
650	Clay: Tan colored clay with green clays interbedded.
660	Clay: Tan clay with occasional interbeds of green clay.
670	Clay and Silt: Gray clay interbedded with tan silt, with ± 20% fine- to medium-grained, subangular, poorly sorted sand.
680	Silt: Tan silt with less than 5% sand, and occasional streaks of gray clay.
690	Silt: Tan silt with ± 20% fine- to medium-grained, subangular to angular, poorly sorted sand.
700	

UGRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME White River
LOCATION NUMBER T8N, R61E, Sect. 27dc
LOGGED BY LB DATE 12-2-79
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
700	Silt: Tan silt with 10-20% fine- to medium-grained, subangular, poorly sorted sand.
710	Silt: Tan silt with less than 5% sand.
720	Silt: Tan silt with less than 10% fine- to medium-grained, subangular to angular sand. Occasional streaks of gray silt.
730	Silt: Tan silt with less than 5% fine- to medium-grained, subangular to angular sand.
740	
750	Clay: Tan color with interbeds of green clay.
760	Silty Clay: Tan and green interbeds of silty clay.
770	Clay: Tan clay with blue-green clay interbeds.
780	Silty Clay: Silty clay with less than 5% fine- to medium-grained, subangular sand.
790	Silt: Tan silt.
800	

TUBRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME White River
LOCATION NUMBER T8N, R61E, Sect. 27dc
LOGGED BY LB DATE 12-3-79
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
800	Silt: Tan silt with occasional blue-green clay.
810	
820	Silt: Tan silt with less than 5% fine- to medium-grained, subangular, poorly sorted sand.
830	
840	Clay: Light gray clay.
850	
860	
	- - - - Clay becoming soft (squeezing in on bit).
870	
880	
890	
900	

TUCKER NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME White River
LOCATION NUMBER T8N, R61E, Sect. 27dc
LOGGED BY JFM DATE 12-12-79
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
900	Clay: Light gray colored clay.
910	Clay: Gray colored, interbedded with occasional green colored clays.
920	Clay: Gray colored clay with less than 3% silt.
930	Clay: Becoming greener in color.
940	Clay: White color.
950	Clay: Light gray color.
960	
970	
980	Clay: Gray color with less than 5% silt.
990	Clay: Green color.
1000	

TERRA NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

VALLEY NAME White River
LOCATION NUMBER T8N, R61E, Sect. 27dc
LOGGED BY JFM DATE 12-13-79
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
1000	Clay: Green colored clay.
1010	
1020	Clay: Green colored clay with less than 10% light colored fine- to medium-grained, subrounded to subangular, well sorted sand.
1030	
1040	Clay: Gray-green colored clay with less than 5% silt.
1050	
1060	
1070	
1080	
1090	
1100	

LUCRO NATIONAL, INC.
DRILL CUTTINGS LOG

FIELD LOG OF WELL NUMBER OW-1

PROJECT NUMBER 79-290- 45
PROJECT NAME MX SITING INVESTIGATION
EQUIPMENT USED Reverse Rotary
COMPANY Beylik
OPERATOR J. Clyde

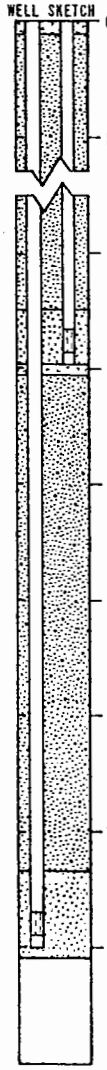
VALLEY NAME White River
LOCATION NUMBER T8N, R61E, Sect. 27dc
LOGGED BY JFM DATE 12-14-79
CHECKED BY JAG DATE 4-10-80
TOTAL WELL DEPTH 1300 feet

DEPTH (FEET)	DESCRIPTION OF CUTTINGS OR SAMPLE
1100	
	Clay: Gray colored clay with less than 5% light colored, fine-grained, subrounded, well sorted sand.
1110	
1120	Clay: Gray and green interbedded clays.
1130	Clay: Gray colored clay with less than 15% silt.
1140	
1150	
1160	Clay: Gray colored clay with less than 10% silt.
1170	
1180	Clay: Gray colored clay with some green clays interbedded with less than 10% silt.
1190	Clay: Gray colored clay with less than 10% silt.
1200	

FUGRO WELL CONSTRUCTION

WELL NO. OW-2 SHEET 1 OF 1
LOGGED BY JFM, SC AND LB PROJECT NO. 79-290-45
DATE (S) JAN 3-22, 1980 PROJECT NAME MX
VALLEY DRY LAKE
ELEVATION
GROUND LEVEL 4843'
LOCATION OR COORDINATES 3S/64E-12ca TOP OF CASING 4845'

WELL SKETCH



DRILLING SUMMARY

TOTAL DEPTH DRILLED 1305'
ROTARY REVERSE CORE
DRILLING CONTRACTOR BEYLIK
RIG (S) USED BUCKET AUGER 0' TO 40'
40' TO TO REVERSE ROTARY
SIZE (S) AND TYPE (S) OF BITES 18 5/8"
DRAG AND CLUSTER BITS
DRILLING FLUID WATER AND 4 SACKS POLYMER
SAMPLING METHOD COLLECTED FROM DISCHARGE PIPE
SURFACE CASING 0' TO 40' 22" DIA
COMMENTS (PROBLEMS, SHUTDOWNS, ETC)

DESIGN

BASIS DRILLER'S LOG
GEOLOGIC LOG ✓
GEOPHYSICAL LOG ✓
COPIES ATTACHED ___ YES ___ NO

STEEL CASING STRING 1
FROM 0' TO 1270' BLANK
FROM 1270' TO 1290' PERF
FROM 1290' TO 1300' BLANK
FROM ___ TO ___
FROM ___ TO ___

STEEL CASING STRING 2
FROM 0' TO 765' BLANK
FROM 765' TO 785' PERF
FROM 785' TO 795' BLANK
FROM ___ TO ___
FROM ___ TO ___

CASING STEEL PVC
DIMENSIONS 2" I.D.
SCREEN
DIMENSIONS 2" I.D.
SLOT SIZE .4" MACHINED SLOTS

PACKERS
CENTRALIZERS
PEA GRAVEL 0'-750' 805'-1230'
WELL PACK 750'-795', 1230'-1305'
CEMENT (MIX) ___ DEPTH (S) 0' - 10'
795'-805'
BENTONITE
PELLETS
SLURRY

DEVELOPMENT METHOD (S)

AIR LIFT 19 HOURS

TIME LOG

	START	FINISH	ELAPSED TIME	% OF TOTAL
DRILLING				
LOGGING				
CASING				
GRAVEL PACKING				
CEMENTING				
BENTONITE PELLETS				
SLURRY				
DEVELOPMENT				

MISCELLANEOUS

A 22" DIAMETER STEEL CONDUCTOR CASING
WAS INSTALLED TO 40' BELOW THE GROUND SURFACE

F-5-3 2-21-79

EXPLANATON

- BLANK CASING
- PERFORATED CASING
- CEMENT
- GRAVEL PACK
- SAND PACK

WELL CONSTRUCTION LOG
OBSERVATION WELL
DRY LAKE VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

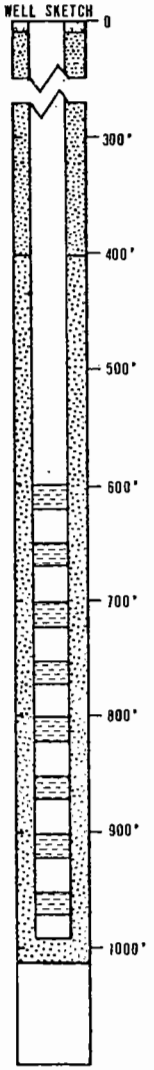
FIGURE H1.4-3

FUGRO NATIONAL, INC.

FUGRO WELL CONSTRUCTION

WELL NO. TW-1 SHEET 1 OF 1
LOGGED BY JFM, LB PROJECT NO. -79-290-45
DATE (S) JAN. 28-FEB 12, 1980 PROJECT NAME MX
VALLEY DRY LAKE
ELEVATION
GROUND LEVEL 4645'
LOCATION OR COORDINATES 35/64E-12ca TOP OF CASING 4646'

WELL SKETCH



DRILLING SUMMARY

TOTAL DEPTH DRILLED 1010'
ROTARY REVERSE CORE
DRILLING CONTRACTOR BEYLIK
RIG (S) USED BUCKET AUGER 0'-40'
REVERSE ROTARY 40'-TD
SIZE (S) AND TYPE (S) OF BITES 18 5/8" DRAG
TRICONE & CLUSTER BITS
DRILLING FLUID POLYMER (5 SACKS) AND WATER
SAMPLING METHOD COLLECTED FROM DISCHARGE PIPE
SURFACE CASING 0'-40' 22" DIAMETER
COMMENTS (PROBLEMS, SHUTDOWNS, ETC)

DESIGN

BASIS DRILLER'S LOG
GEOLOGIC LOG ✓
GEOPHYSICAL LOG ✓
COPIES ATTACHED ___ YES ___ NO

STEEL CASING SCREEN

FROM	600'	TO	620'
FROM	650'	TO	670'
FROM	700'	TO	720'
FROM	750'	TO	770'
FROM	800'	TO	820'
FROM	850'	TO	870'
FROM	900'	TO	920'
FROM	950'	TO	970'
FROM		TO	
FROM		TO	

CASING	STEEL	PVC
DIMENSIONS	10" I.D.	
SCREEN		
DIMENSIONS	10" I.D.	
SLOT SIZE	60	

PACKERS
CENTRALIZERS EVERY 100'
PEA GRAVEL 10-400'
WELL PACK 400'-1010'
CEMENT (MIX) DEPTH (S) 0'-10'
BENTONITE
PELLETS
SLURRY

DEVELOPMENT METHOD (S)

SWABBING AND BAILING, 32 HOURS,
PUMP SURGING FOR 12 HOURS

TIME LOG

	START	FINISH	ELAPSED TIME	% OF TOTAL
DRILLING				
LOGGING				
CASING				
GRAVEL PACKING				
CEMENTING				
BENTONITE PELLETS				
SLURRY				
DEVELOPMENT				

MISCELLANEOUS

10" I.D. BLANK CASING INSTALLED ABOVE AND BELOW EACH SCREENED INTERVAL. A 22" DIAMETER STEEL CONDUCTOR CASING WAS INSTALLED AND GROUTED TO 40' BELOW THE GROUND SURFACE

F-5-3 2-21-79

EXPLANATION

- BLANK CASING
- PERFORATED CASING
- CEMENT
- GRAVEL PACK
- SAND PACK

WELL CONSTRUCTION LOG
TEST WELL
DRY LAKE VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

FIGURE H1.4-4

FUGRO NATIONAL, INC.

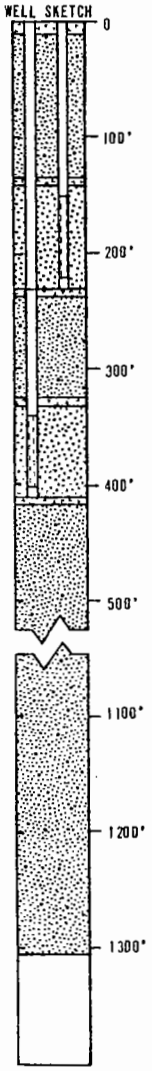
FUGRO WELL CONSTRUCTION

WELL NO. OW-1 SHEET 1 OF 1
LOGGED BY JFW, LB PROJECT NO. 79-290-45
DATE (S) NOV 20-DEC 20, 1980 PROJECT NAME MX
VALLEY WHITE RIVER

ELEVATION
GROUND LEVEL 5255'
TOP OF CASING 5256'

LOCATION OR COORDINATES 8N/81E-27dc

WELL SKETCH



DRILLING SUMMARY

TOTAL DEPTH DRILLED 1304'
ROTARY REVERSE CORE
DRILLING CONTRACTOR BEYLIK

RIG (S) USED BUCKET AUGER 0'-40'
REVERSE ROTARY 40'-1304'
SIZE (S) AND TYPE (S) OF BITES 18 5/8"
DRAG AND TRICONE
DRILLING FLUID QUICK GEL (272 SACKS)
POLYMER (8 SACKS) AND WATER
SAMPLING METHOD COLLECTED FROM DISCHARGE PIPE

SURFACE CASING 0'- 40' 22" DIAMETER
COMMENTS (PROBLEMS, SHUTDOWNS, ETC)
CAVING OF DRY CLAY FORMATIONS
CAUSED PERIODIC SHUTDOWNS UNTIL CIRCULATION
WAS RESUMED

DESIGN

BASIS DRILLER'S LOG
GEOLOGIC LOG ✓
GEOPHYSICAL LOG ✓

STEEL CASING STRING 1

FROM	0'	TO	340'	BLANK
FROM	340'	TO	400'	SLOTTED
FROM	400'	TO	410'	BLANK
FROM		TO		
FROM		TO		

STEEL CASING STRING 2

FROM	0'	TO	150'	BLANK
FROM	150'	TO	220'	SLOTTED
FROM	220'	TO	230'	BLANK
FROM		TO		
FROM		TO		

	STEEL	PVC
CASING DIMENSIONS	2" I.D.	
SCREEN DIMENSIONS	2" I.D.	
SLOT SIZE	3 4" MACHINED SLOTS	

PACKERS
CENTRALIZERS
WELL PACK 140'-230' & 330'-410'
PEA GRAVEL 5'-135' 235'-325'
CEMENT (MIX) DEPTH (S) 0'-5'
135'-140' 230'-235' 325'-330' 410'-415'
BENTONITE
PELLETS
SLURRY

DEVELOPMENT METHODS (S)

AIR LIFT

TIME LOG

	START	FINISH	ELAPSED TIME	% OF TOTAL
DRILLING				
LOGGING				
CASING				
GRAVEL PACKING				
CEMENTING				
BENTONITE PELLETS				
SLURRY				
DEVELOP-MENT				

MISCELLANEOUS

A 22" DIAMETER STEEL CONDUCTOR CASING
WAS INSTALLED TO 40' BELOW THE GROUND
SURFACE

F-5-3 2-21-79

EXPLANATION

- BLANK CASING
- PERFORATED CASING
- CEMENT
- GRAVEL PACK
- SAND PACK

WELL CONSTRUCTION LOG
OBSERVATION WELL
WHITE RIVER VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

FIGURE H1.4-5

FUGRO NATIONAL, INC.

APPENDIX I1.0

Glossary of Selected Hydrologic Terminology

TABLE 1
GLOSSARY OF SELECTED HYDROGEOLOGIC TERMINOLOGY

AQUIFER. A body of rock that contains sufficient saturated permeable material to yield economically significant quantities of ground water to wells and springs.

Confined Aquifer. An aquifer bounded above and below by impermeable bed or beds of distinctly lower permeability than that of the aquifer itself.

Deep Aquifer. A consolidated rock aquifer, or carbonate aquifer when contained in limestone or dolomite rock, which occurs beneath the unconsolidated valley-fill sediments and in the mountain ranges. This aquifer is the conduit for any interbasin or regional flow systems which exist. Flow is believed to be primarily through fracture and solution openings rather than through normal intergranular flow.

Perched Aquifer. An unconfined aquifer separated from an underlying main body of ground water by an unsaturated zone.

Intermediate Aquifer. An intermediate aquifer is arbitrarily defined as an aquifer that occurs below 500 feet in the unconsolidated valley-fill sediments.

Shallow Aquifer. A shallow aquifer is arbitrarily defined as an aquifer that occurs in the upper 500 feet of unconsolidated valley-fill sediments.

ARTESIAN. An adjecture referring to ground water confined under hydrostatic pressure.

DRAWDOWN. The distance by which the level of an reservoir is lowered by the withdrawal of water.

EVAPOTRANSPIRATION. The process by which ground water becomes atmospheric water either by evaporation from a surface or transpiration by plants. No effort is made to distinguish between the two.

HYDRAULIC CONDUCTIVITY. The amount of water flowing through a unit area of aquifer normal to a unit gradient. It is a measure of the ease with which a material transmits water.

HYDROSTATIC PRESSURE. The pressure exerted by the water at any given point in a body of water at rest. The hydrostatic pressure of ground water is generally due to the weight of water at higher levels in the zone of saturation.

LACUSTRINE. Pertaining to, produced by, or formed in a lake or lakes.

PIEZOMETRIC. Potentiometric.

PERENNIAL YIELD. The amount of water that can be withdrawn on a continuous basis without causing an undesirable result.

The term "undesirable result" is not defined, but may include intrusion of water of undesirable quality, reduction of head below an economic pumping level, or environmental effects such as destruction of marshy wildlife habitat or destruction of useful phreatophytes. Perennial yield must be less than the long-term average recharge, but other than that, generalizations cannot be made. Perennial yield cannot be computed until a management decision has been made on the definition of an undesirable result. Perennial yield in this report refers to state and federal estimates. These estimates are not accompanied by a quantification or definition of undesirable effects.

PHREATOPHYTE. A plant which takes water directly from the water table through roots which penetrate to the saturated zone. In the MX siting area, these are primarily greasewood, rabbitbrush, saltgrass, and pickleweed.

POORLY SORTED. A sediment that consists of particles of many sizes mixed together in an unsystematic manner.

POTENTIOMETRIC SURFACE. An imaginary surface representing the total head of water in an aquifer. It is the level at which water will stand in a properly constructed well. Ground water always flows from higher to lower potential and perpendicular to contours on the potentiometric surface.

SPECIFIC CAPACITY. The rate of discharge of a water well per unit of drawdown, commonly expressed in gallons per minute per foot.

SPECIFIC YIELD. The volume of water which will drain from a saturated unit volume of an aquifer under the influence of gravity. Expressed as a ratio or percentage.

STORAGE COEFFICIENT. The amount of water added to or removed from storage per unit of surface area of an aquifer per unit of change in head normal to that surface. Expressed as a decimal ratio.

TRANSMISSIVITY. The amount of water flowing through a unit width of an aquifer in response to a unit gradient. It is a measure of the ability of an aquifer to transmit water. It is numerically equal to the conductivity times the aquifer thickness.

WELL SORTED. A sediment that consists of particles all having approximately the same size.

APPENDIX J1.0

References Cited

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TOIYABE NATIONAL FOREST
BIG SMOKY VALLEY
RALSTON VALLEY
EXPLANATION
CONTOURS
DRAINAGE DIVIDE
50 POTENTIOMETRIC SURFACE ELEVATION
5200 DEPTH TO POTENTIOMETRIC SURFACE
WATER LEVEL MEASUREMENTS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
DISCHARGE MEASUREMENTS
STREAMS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
SPRINGS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
AQUIFER TEST
WATER TABLE MONITORING BORINGS
AREA OF HIGH EVAPOTRANSPIRATION
NORTH
SCALE 1:250 000
STATUTE MILES
KILOMETERS
NOTES: (1) POTENTIOMETRIC AND DEPTH TO WATER CONTOURS WERE CONSTRUCTED FROM 1:62,500 SCALE BASE MAP AND REPRESENT TRUE ELEVATIONS AND DEPTHS. THESE HYDROLOGIC DATA WERE REDUCED AND TRANSFERRED TO THIS 1:250,000 SCALE BASE MAP WHICH MAY HAVE RESULTED IN SOME APPARENT DISCREPANCY WITH THE TOPOGRAPHIC CONTOURS.
(2) CONTOUR MAPS COMPILED DURING THIS INVESTIGATION ARE BASED ON THE LIMITED DATA AVAILABLE, AND AS NEW DATA BECOMES AVAILABLE, MAPS WILL BE UPDATED AND REFINED.
POTENTIOMETRIC LEVELS
BIG SMOKY VALLEY, NEVADA
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
DRAWING
B1-1
FUGRO NATIONAL, INC.

POTENTIOMETRIC LEVELS
LITTLE SMOKY VALLEY, NEVADA

FUGRO NATIONAL, INC.

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

DRAWING B1-8

SCALE 1:250,000

0 5 10 STATUTE MILES

0 5 10 KILOMETERS

NORTH

EXPLANATION

CONTOURS

DRAINAGE DIVIDE

50 DEPTH TO POTENTIOMETRIC SURFACE

5200 POTENTIOMETRIC SURFACE ELEVATION

WATER LEVEL MEASUREMENTS

MEASURED BY FUGRO NATIONAL

OTHER DATA SOURCES

Warm DISCHARGE MEASUREMENTS

STREAMS

MEASURED BY FUGRO NATIONAL

OTHER DATA SOURCES

SPRINGS

Storm Spring MEASURED BY FUGRO NATIONAL

Coyote Hole Spring OTHER DATA SOURCES

Abel Spring

AQUIFER TEST

WATER TABLE MONITORING BORINGS

Pinon Well

AREA OF HIGH EVAPOTRANSPIRATION

NOTES: (1) POTENTIOMETRIC AND DEPTH TO WATER CONTOURS WERE CONSTRUCTED FROM 1:62,500 SCALE BASE MAP AND REPRESENT TRUE ELEVATIONS AND DEPTHS. THESE HYDROLOGIC DATA WERE REDUCED AND TRANSFERRED TO THIS 1:250,000 SCALE BASE MAP WHICH MAY HAVE RESULTED IN SOME APPARENT DISCREPENCY WITH THE TOPOGRAPHIC CONTOURS.

(2) CONTOUR MAPS COMPILED DURING THIS INVESTIGATION ARE BASED ON THE LIMITED DATA AVAILABLE, AND AS NEW DATA BECOMES AVAILABLE, MAPS WILL BE UPDATED AND REFINED.


EXPLANATION
CONTOURS
DRAINAGE DIVIDE
POTENTIOMETRIC SURFACE ELEVATION
DEPTH TO POTENTIOMETRIC SURFACE
WATER LEVEL MEASUREMENTS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
DISCHARGE MEASUREMENTS
STREAMS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
SPRINGS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
AQUIFER TEST
WATER TABLE MONITORING BORINGS
AREA OF HIGH EVAPOTRANSPIRATION
NORTH
SCALE 1:250,000
STATUTE MILES
KILOMETERS
NOTES (1)
POTENTIOMETRIC AND DEPTH TO WATER CONTOURS WERE CONSTRUCTED FROM 1:62 500 SCALE BASE MAP AND AND REPRESENT TRUE ELEVATIONS AND DEPTHS THESE HYDROLOGIC DATA WERE REDUCED AND TRANSFERRED TO THIS 1:250 000 SA SCALE BASE MAP WHICH MAY HAVE RESULTED IN SOME APPARENT DISCREPENCY WITH THE TOPOGRAPHIC CONTOURS.
(2) CONTOUR MAPS COMPILED DURING THIS INVESTIGATION ARE BASED ON THE LIMITED DATA AVAILABLE AND AS NEW DATA BECOMES AVAILABLE MAPS WILL BE UPDATED AND REFINED.
FUGRO NATIONAL, INC.
DEPARTMENT OF THE ARMY - CORPS OF ENGINEERS
WATER SUPPLY INVESTIGATION
POTENTIOMETRIC LEVELS
PINE VALLEY, UTAH
PLATE
B-5


EXPLANATION
DRAINAGE DIVIDE
POTENTIOMETRIC SURFACE ELEVATION
DEPTH TO POTENTIOMETRIC SURFACE
WATER LEVEL MEASUREMENTS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
DISCHARGE MEASUREMENTS
STREAMS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
SPRINGS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
AQUIFER TEST
WATER TABLE MONITORING SPRINGS
AREA OF HIGH EVAPOTRANSPIRATION
NORTH
SCALE 1:250,000
STATUTE MILES
KILOMETERS
NOTES: (1) POTENTIOMETRIC AND DEPTH TO WATER CONTOURS WERE CONSTRUCTED FROM 1:62,500 SCALE BASE MAP AND REPRESENT TRUE ELEVATIONS AND DEPTHS. THESE HYDROLOGIC DATA WERE REDUCED AND TRANSFERRED TO THIS 1:250,000 SCALE BASE MAP WHICH MAY HAVE RESULTED IN SOME APPARENT DISCREPANCY WITH THE TOPOGRAPHIC CONTOURS.
(2) CONTOUR MAPS COMPILED DURING THIS INVESTIGATION ARE BASED ON THE LIMITED DATA AVAILABLE, AND AS NEW DATA BECOMES AVAILABLE, MAPS WILL BE UPDATED AND REFINED.
POTENTIOMETRIC LEVELS
RAILROAD VALLEY (NORTH), NEVADA
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
FUGRO NATIONAL, INC.
B1-1

EXPLANATION

CONTOURS

DRAINAGE DIVIDE

5200 POTENTIOMETRIC SURFACE ELEVATION

50 DEPTH TO POTENTIOMETRIC SURFACE

WATER LEVEL MEASUREMENTS

MEASURED BY FUGRO NATIONAL

OTHER DATA SOURCES

DISCHARGE MEASUREMENTS

STREAMS

MEASURED BY FUGRO NATIONAL

OTHER DATA SOURCES

SPRINGS

MEASURED BY FUGRO NATIONAL

OTHER DATA SOURCES

AQUIFER TEST

WATER TABLE MONITORING BORINGS

AREA OF HIGH EVAPOTRANSPIRATION

NOTES:

(1) POTENTIOMETRIC AND DEPTH TO WATER CONTOURS WERE CONSTRUCTED FROM 1:62,500 SCALE BASE MAP AND REPRESENT TRUE ELEVATIONS AND DEPTHS. THESE HYDROLOGIC DATA WERE REDUCED AND TRANSFERRED TO THIS 1:250,000 SCALE BASE MAP WHICH MAY HAVE RESULTED IN SOME APPARENT DISCREPANCY WITH THE TOPOGRAPHIC CONTOURS.

(2) CONTOUR MAPS COMPILED DURING THIS INVESTIGATION ARE BASED ON THE LIMITED DATA AVAILABLE, AND AS NEW DATA BECOMES AVAILABLE, MAPS WILL BE UPDATED AND REFINED.

NORTH

SCALE 1:250,000

0 5 10

STATUTE MILES

0 5000 10

KILOMETERS

POTENTIOMETRIC CONTOURS
RAILROAD VALLEY (SOUTH), NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

DRAWING
B1-11

FUGRO NATIONAL, INC.

EM-TR-38

EXPLANATION

DRAINAGE DIVIDE

POTENTIOMETRIC SURFACE ELEVATION

DEPTH TO POTENTIOMETRIC SURFACE

WATER LEVEL MEASUREMENTS

MEASURED BY FUGRO NATIONAL

OTHER DATA SOURCES

DISCHARGE MEASUREMENTS

STREAMS

MEASURED BY FUGRO NATIONAL

OTHER DATA SOURCES

SPRINGS

MEASURED BY FUGRO NATIONAL

OTHER DATA SOURCES

AQUIFER TEST

WATER TABLE MONITORING BORINGS

AREA OF HIGH EVAPOTRANSPIRATION

NOTES: (1) POTENTIOMETRIC AND DEPTH TO WATER CONTOURS WERE CONSTRUCTED FROM 1:62,500 SCALE BASE MAP AND REPRESENT TRUE ELEVATIONS AND DEPTHS. THESE HYDROLOGIC DATA WERE REDUCED AND TRANSFERRED TO THIS 1:250,000 SCALE BASE MAP WHICH MAY HAVE RESULTED IN SOME APPARENT DISCREPANCY WITH THE TOPOGRAPHIC CONTOURS.

(2) CONTOUR MAPS COMPILED DURING THIS INVESTIGATION ARE BASED ON THE LIMITED DATA AVAILABLE, AND AS NEW DATA BECOMES AVAILABLE MAPS WILL BE UPDATED AND REFINED.

STUDY AREA BOUNDARY

DUGWAY PROVING GROUND

DUGWAY VALLEY

SEVIER DESERT

JUAB COUNTY

MILLARD COUNTY

NORTH

SCALE 1:250,000

STATUTE MILES 0 5 10

KILOMETERS 0 5 10

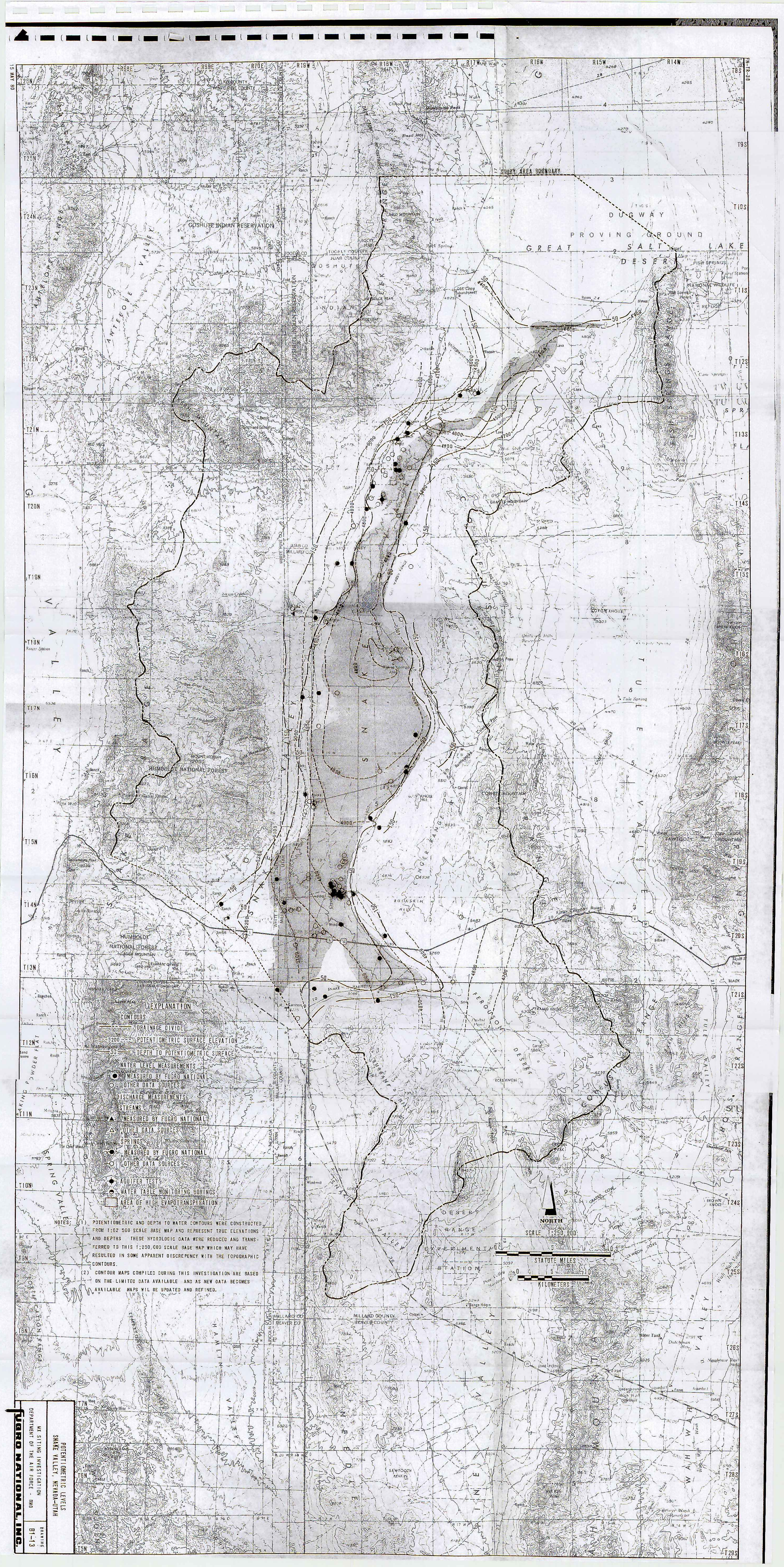
POTENTIOMETRIC LEVELS
SEVIER DESERT, UTAH

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

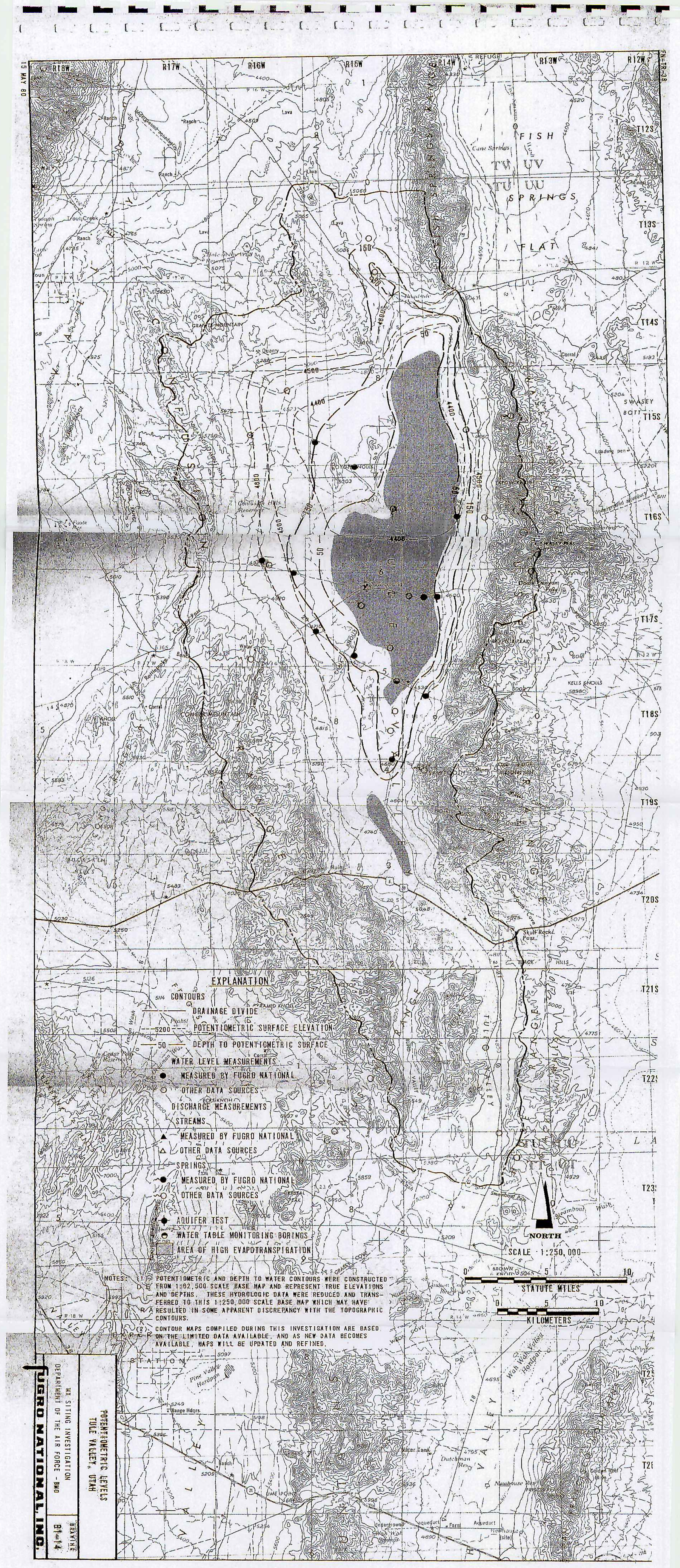
DRAWING NO. Plate 12

FUGRO NATIONAL, INC.

08 MAY 81



EXPLANATION
CONTOURS
DRAINAGE DIVIDE
5200 POTENTIOMETRIC SURFACE ELEVATION
50 DEPTH TO POTENTIOMETRIC SURFACE
WATER LEVEL MEASUREMENTS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
DISCHARGE MEASUREMENTS
STREAMS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
SPRINGS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
AQUIFER TEST
WATER TABLE MONITORING BORINGS
AREA OF HIGH EVAPOTRANSPIRATION
NOTES: (1) POTENTIOMETRIC AND DEPTH TO WATER CONTOURS WERE CONSTRUCTED FROM 1:62 500 SCALE BASE MAP AND REPRESENT TRUE ELEVATIONS AND DEPTHS THESE HYDROLOGIC DATA WERE REDUCED AND TRANSFERRED TO THIS 1:250,000 SCALE BASE MAP WHICH MAY HAVE RESULTED IN SOME APPARENT DISCREPENCY WITH THE TOPOGRAPHIC CONTOURS.
(2) CONTOUR MAPS COMPILED DURING THIS INVESTIGATION ARE BASED ON THE LIMITED DATA AVAILABLE AND AS NEW DATA BECOMES AVAILABLE MAPS WIL BE UPDATED AND REFINED.
NORTH
STATUTE MILES
KILOMETERS
DUGWAY PROVING GROUND
GREAT SALT LAKE DESERT
GOSHUTE INDIAN RESERVATION
SNAKE VALLEY
HUMBOLDT NATIONAL FOREST
SPRING VALLEY
POTENTIOMETRIC LEVELS
SNAKE VALLEY, NEVADA-UTAH
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
DRAWING
B1-13
FUGRO NATIONAL, INC.


EXPLANATION
CONTOURS
DRAINAGE DIVIDE
5200 POTENTIOMETRIC SURFACE ELEVATION
50 DEPTH TO POTENTIOMETRIC SURFACE
WATER LEVEL MEASUREMENTS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
DISCHARGE MEASUREMENTS
STREAMS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
SPRINGS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
AQUIFER TEST
WATER TABLE MONITORING BORINGS
AREA OF HIGH EVAPOTRANSPIRATION
NOTES: (1) POTENTIOMETRIC AND DEPTH TO WATER CONTOURS WERE CONSTRUCTED FROM 1:62,500 SCALE BASE MAP AND REPRESENT TRUE ELEVATIONS AND DEPTHS. THESE HYDROLOGIC DATA WERE REDUCED AND TRANSFERRED TO THIS 1:250,000 SCALE BASE MAP WHICH MAY HAVE RESULTED IN SOME APPARENT DISCREPANCY WITH THE TOPOGRAPHIC CONTOURS.
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NORTH
SCALE 1:250,000
0 5 10
STATUTE MILES
0 5 10
KILOMETERS
FISH SPRINGS FLAT
TULE VALLEY
Skull Rock Pass
T12S
T13S
T14S
T15S
T16S
T17S
T18S
T19S
T20S
T21S
R18W
R17W
R16W
R15W
R14W
R13W
R12W
POTENTIOMETRIC LEVELS
TULE VALLEY, UTAH
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
DRAWING
B1-14
FUGRO NATIONAL, INC.


SEVIER LAKE
EXPLANATION
CONTOURS
DRAINAGE DIVIDE
5200 POTENTIOMETRIC SURFACE ELEVATION
50 DEPTH TO POTENTIOMETRIC SURFACE
WATER LEVEL MEASUREMENTS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
DISCHARGE MEASUREMENTS
STREAMS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
SPRINGS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
AQUIFER TEST
WATER TABLE MONITORING BORINGS
AREA OF HIGH EVAPOTRANSPIRATION
NORTH
SCALE 1:250,000
STATUTE MILES
KILOMETERS
NOTES: (1) POTENTIOMETRIC AND DEPTH TO WATER CONTOURS WERE CONSTRUCTED FROM 1:62,500 SCALE BASE MAP AND REPRESENT TRUE ELEVATIONS AND DEPTHS. THESE HYDROLOGIC DATA WERE REDUCED AND TRANSFERRED TO THIS 1:250,000 SCALE BASE MAP WHICH MAY HAVE RESULTED IN SOME APPARENT DISCREPANCY WITH THE TOPOGRAPHIC CONTOURS.
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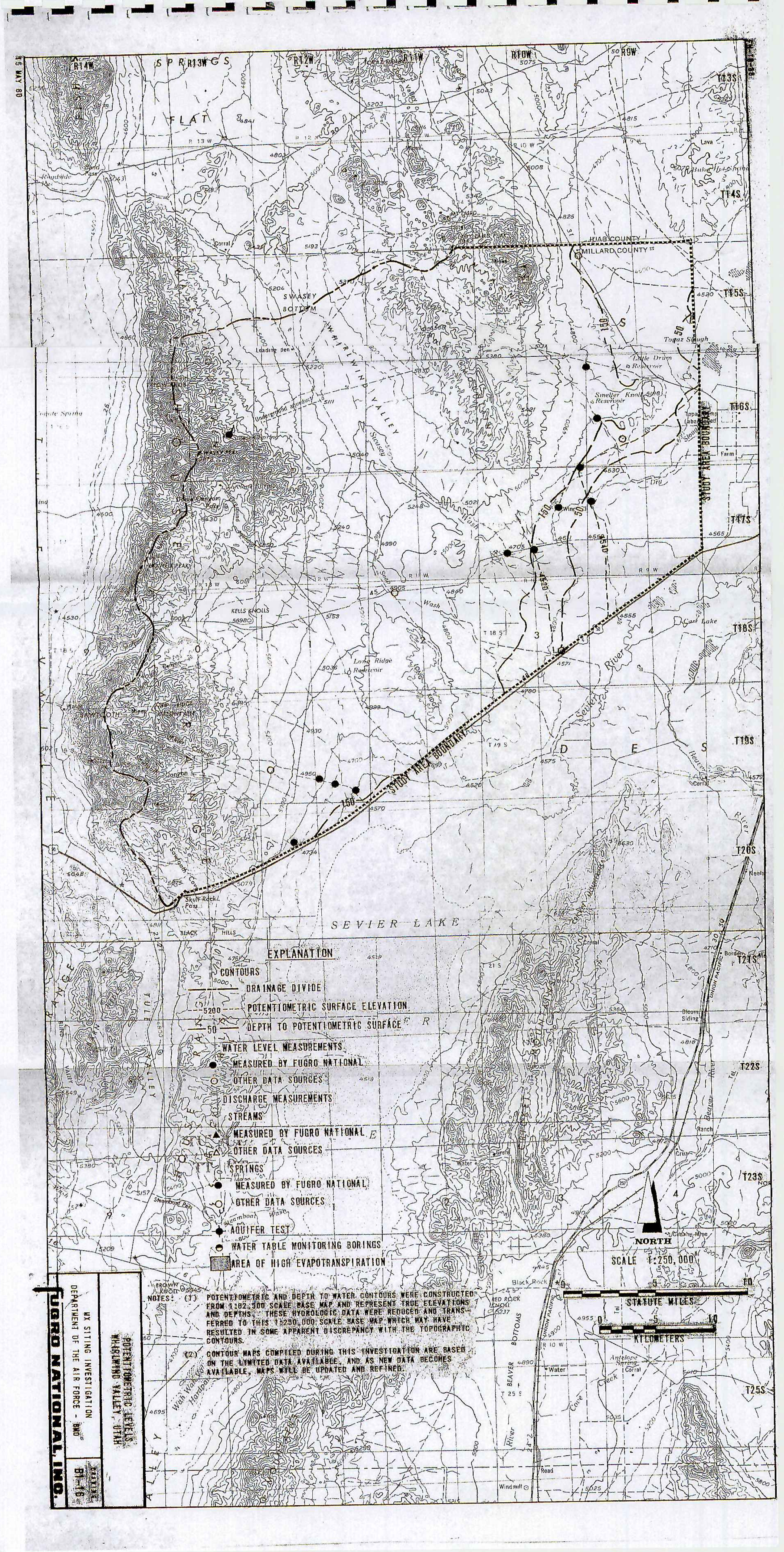
POTENTIOMETRIC LEVELS
WAH WAH VALLEY, UTAH
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE
FUGRO NATIONAL, INC.


SEVIER LAKE
WHIRLWIND VALLEY
SWASEY BOTTOM
STUDY AREA BOUNDARY
EXPLANATION
CONTOURS
DRAINAGE DIVIDE
POTENTIOMETRIC SURFACE ELEVATION
DEPTH TO POTENTIOMETRIC SURFACE
WATER LEVEL MEASUREMENTS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
DISCHARGE MEASUREMENTS
STREAMS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
SPRINGS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
AQUIFER TEST
WATER TABLE MONITORING BORINGS
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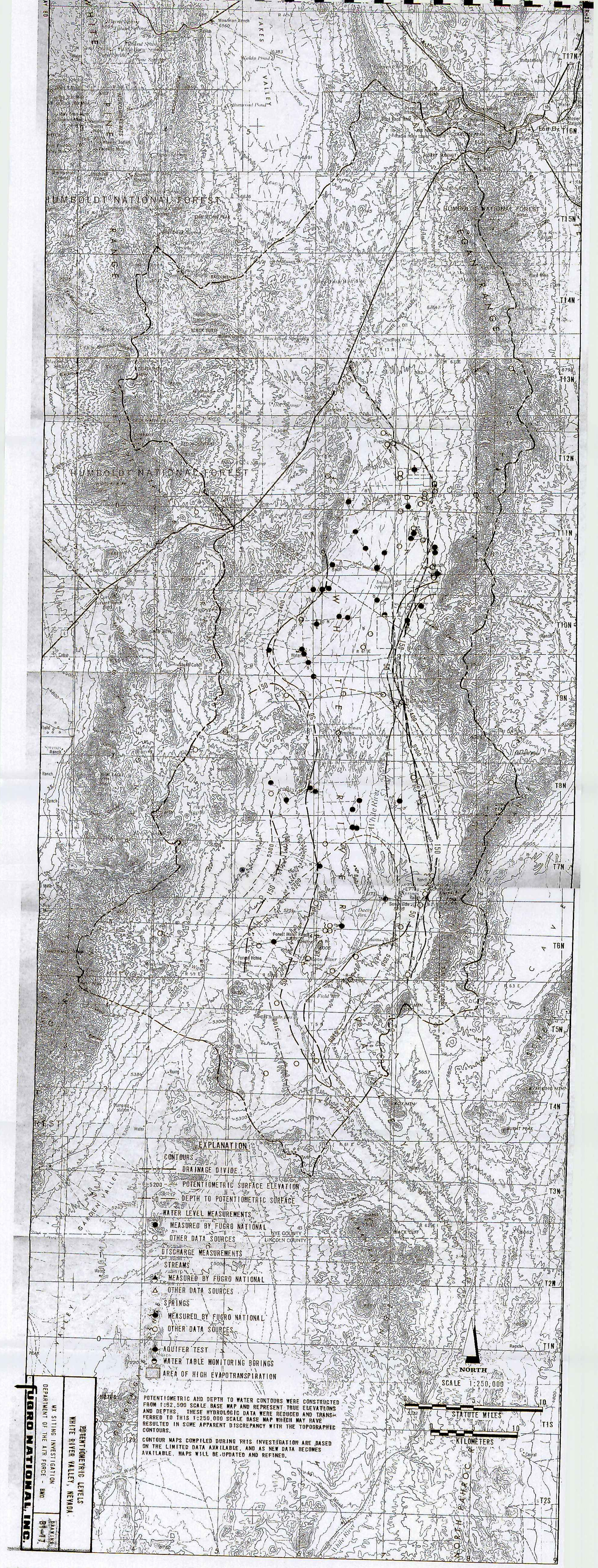
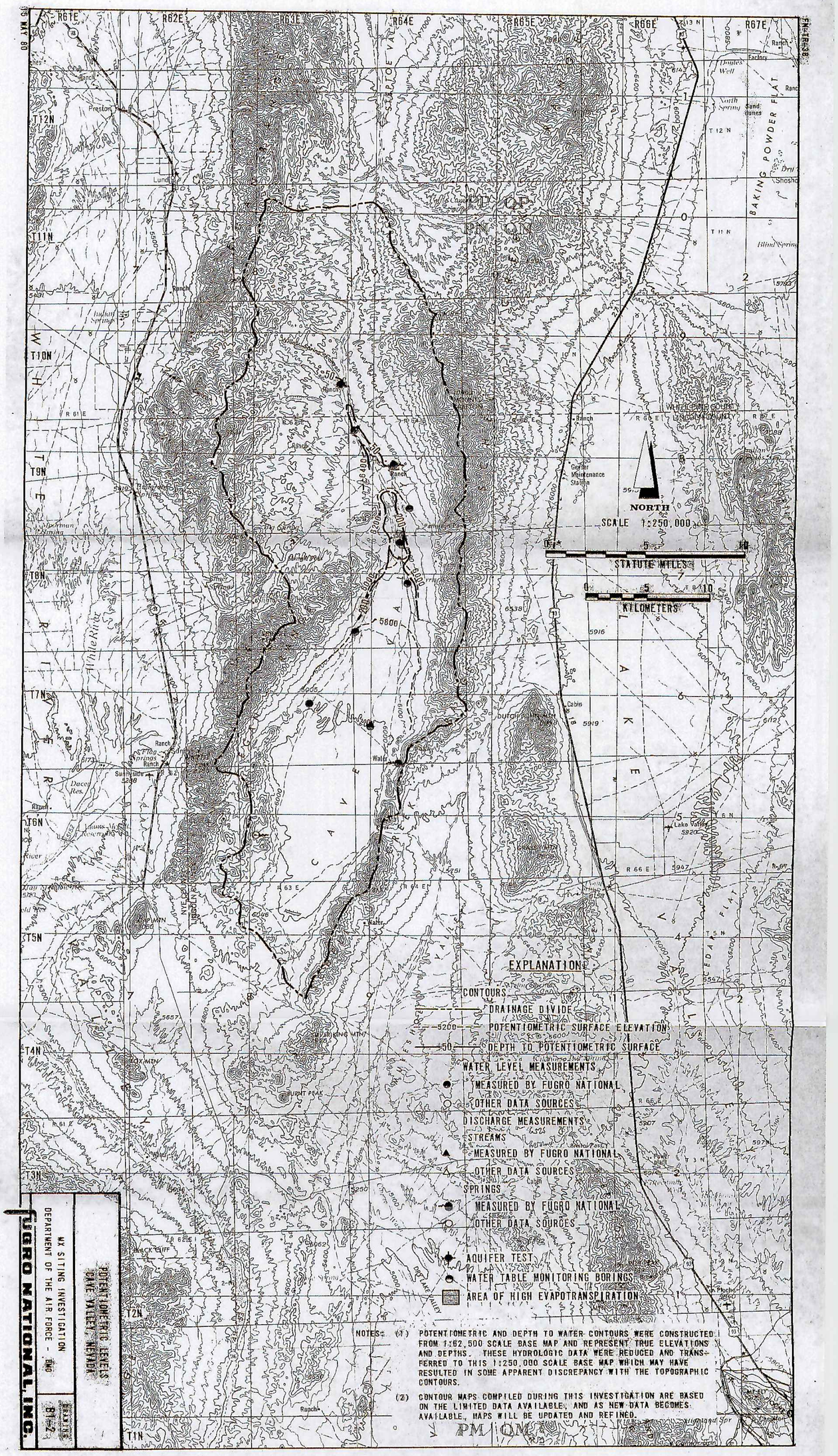
NORTH
SCALE 1:250,000
STATUTE MILES
KILOMETERS
POTENTIOMETRIC LEVELS
WHIRLWIND VALLEY, UTAH
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
81-16
FUGRO NATIONAL, INC.
25 MAY 80


HUMBOLDT NATIONAL FOREST
EGAN RANGE
WHITE PINE RANGE
JAKES VALLEY
WHITE RIVER
T17N
T16N
T15N
T14N
T13N
T12N
T11N
T10N
T9N
T8N
T7N
T6N
T5N
T4N
T3N
T2N
T1N
T1S
T2S
EXPLANATION
CONTOURS
DRAINAGE DIVIDE
5200 POTENTIOMETRIC SURFACE ELEVATION
50 DEPTH TO POTENTIOMETRIC SURFACE
WATER LEVEL MEASUREMENTS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
DISCHARGE MEASUREMENTS
STREAMS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
SPRINGS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
AQUIFER TEST
WATER TABLE MONITORING BORINGS
AREA OF HIGH EVAPOTRANSPIRATION
NOTES
POTENTIOMETRIC AND DEPTH TO WATER CONTOURS WERE CONSTRUCTED FROM 1:62,500 SCALE BASE MAP AND REPRESENT TRUE ELEVATIONS AND DEPTHS. THESE HYDROLOGIC DATA WERE REDUCED AND TRANSFERRED TO THIS 1:250,000 SCALE BASE MAP WHICH MAY HAVE RESULTED IN SOME APPARENT DISCREPANCY WITH THE TOPOGRAPHIC CONTOURS.
CONTOUR MAPS COMPILED DURING THIS INVESTIGATION ARE BASED ON THE LIMITED DATA AVAILABLE, AND AS NEW DATA BECOMES AVAILABLE, MAPS WILL BE UPDATED AND REFINED.
NORTH
SCALE 1:250,000
STATUTE MILES
KILOMETERS
NYE COUNTY
LINCOLN COUNTY
POTENTIOMETRIC LEVELS
WHITE RIVER VALLEY, NEVADA
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
FUGRO NATIONAL, INC.
DRAWING
B1-17


R61E
R62E
R63E
R64E
R65E
R66E
R67E
T12N
T11N
T10N
T9N
T8N
T7N
T6N
T5N
T4N
T3N
T2N
T1N
SPRING VALLEY
WHITE PINE COUNTY
LINCOLN COUNTY
NORTH
SCALE 1:250,000
STATUTE MILES
KILOMETERS
EXPLANATION
CONTOURS
DRAINAGE DIVIDE
POTENTIOMETRIC SURFACE ELEVATION
DEPTH TO POTENTIOMETRIC SURFACE
WATER LEVEL MEASUREMENTS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
DISCHARGE MEASUREMENTS
STREAMS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
SPRINGS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
AQUIFER TEST
WATER TABLE MONITORING BORINGS
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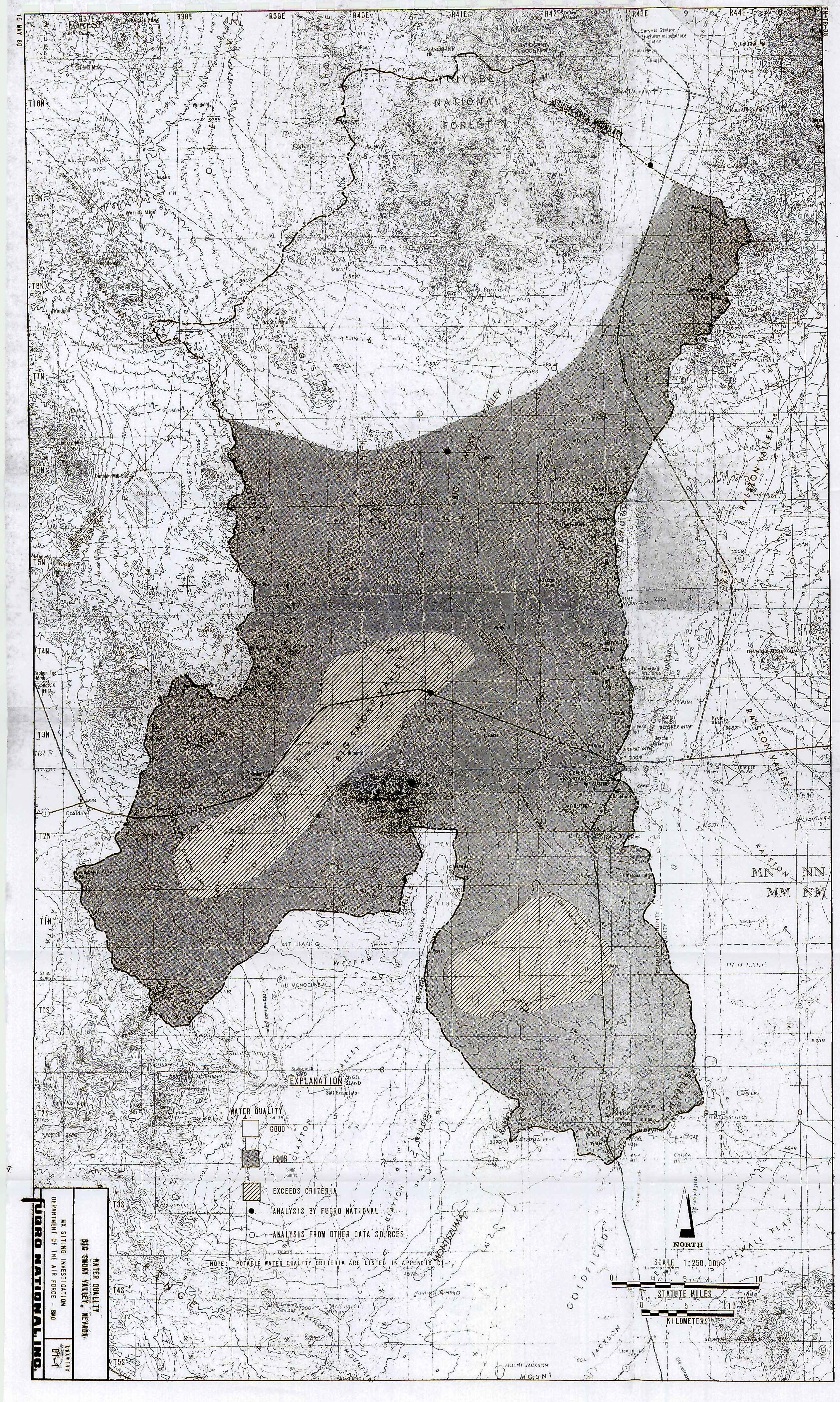
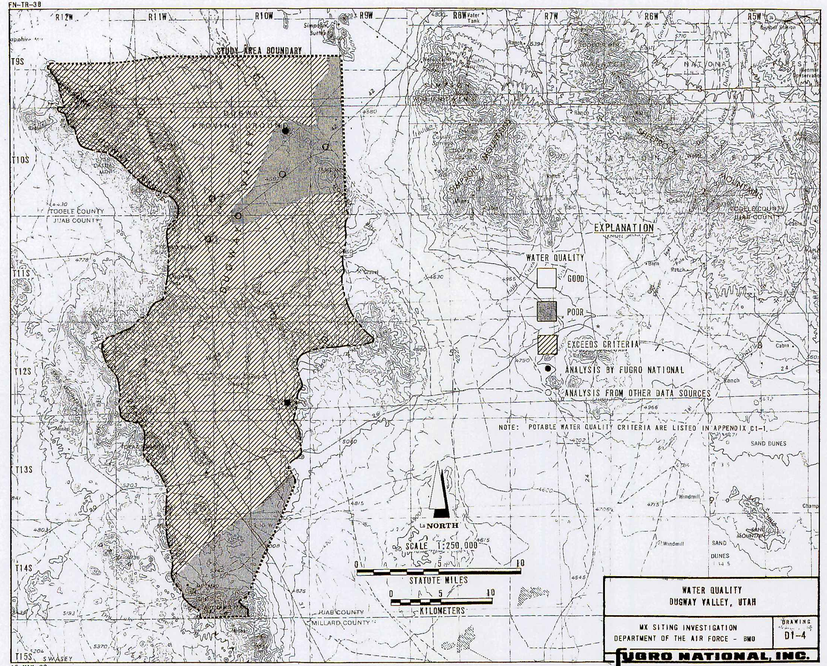
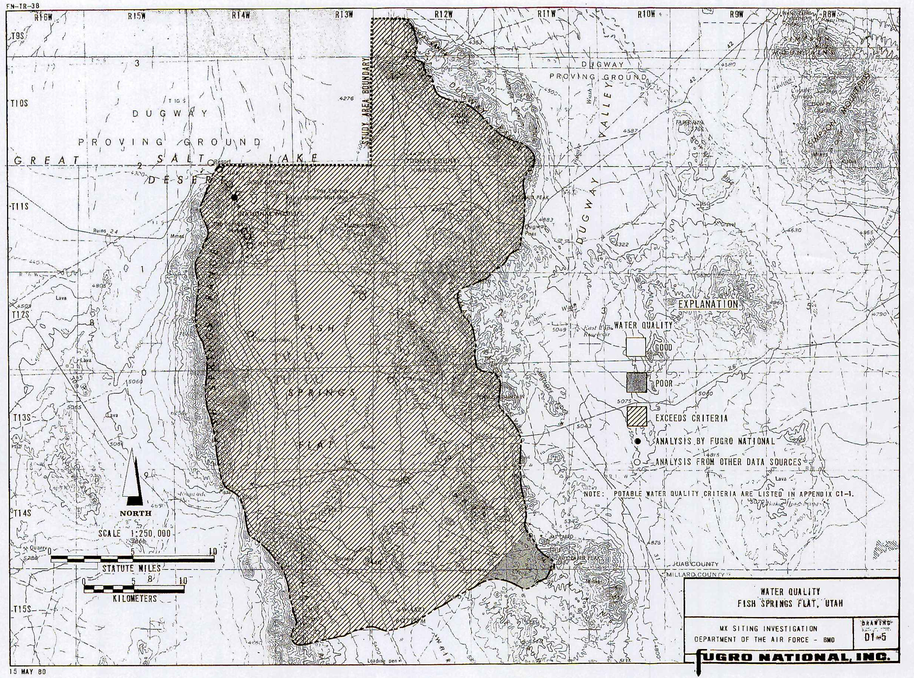
FUGRO NATIONAL, INC.
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
POTENTIOMETRIC LEVELS
DATE VALLEY, NEVADA
B1-2

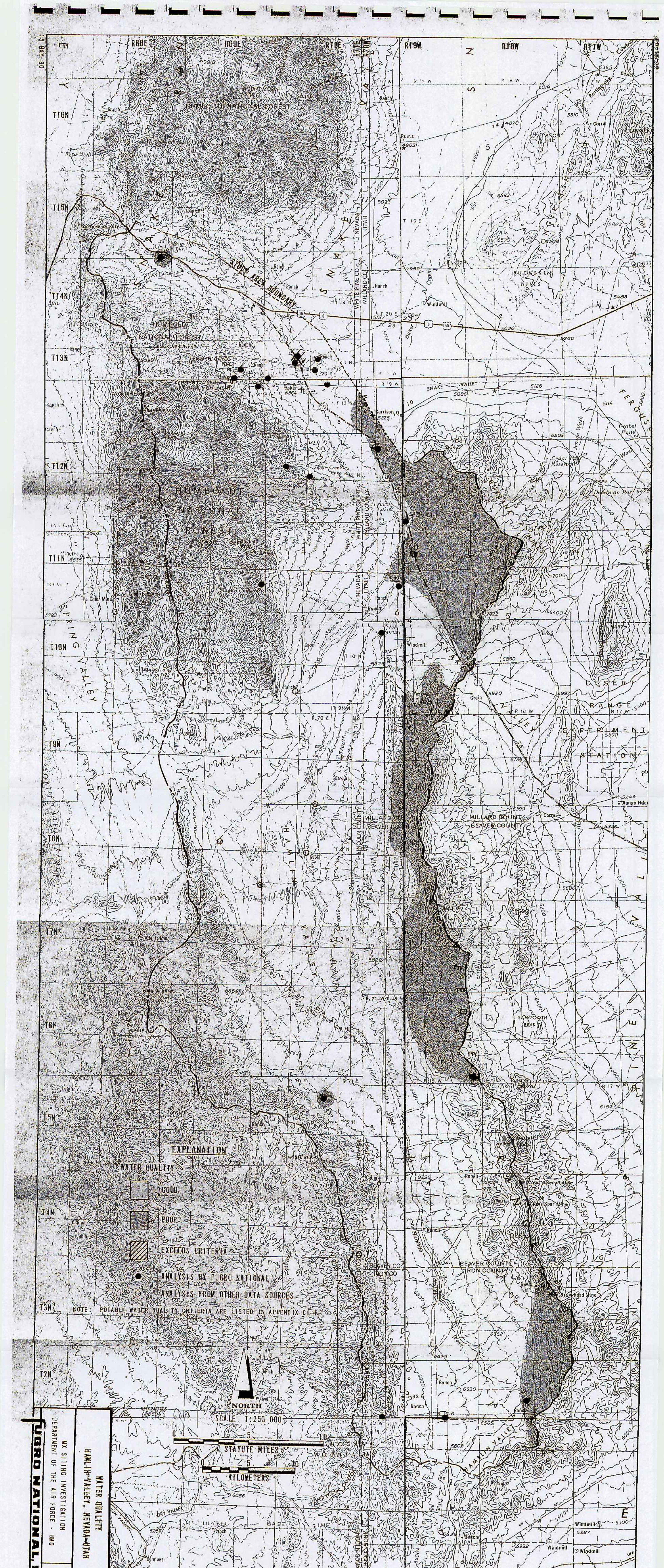

FUGRO NATIONAL, INC.
WATER QUALITY
BIG SMOKY VALLEY, NEVADA
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
DRAWING
C1-1
15 MAY 80
EXPLANATION
WATER QUALITY
GOOD
POOR
EXCEEDS CRITERIA
ANALYSIS BY FUGRO NATIONAL
ANALYSIS FROM OTHER DATA SOURCES
NOTE: POTABLE WATER QUALITY CRITERIA ARE LISTED IN APPENDIX C1-1.
NORTH
SCALE 1:250,000
STATUTE MILES
KILOMETERS
TOIYABE NATIONAL FOREST
BIG SMOKY VALLEY
RALSTON VALLEY
CLAYTON VALLEY
GOLDFIELD
STONEWALL FLAT
MUD LAKE
WEEPAH
MT DIABLO
MONTEZUMA
MOUNT JACKSON
THUNDER MOUNTAIN
Tonopah
Coaldale
Silverpeak
STUDY AREA BOUNDARY
NYE COUNTY
ESMERALDA COUNTY
R37E
R38E
R39E
R40E
R41E
R42E
R43E
R44E
T10N
T9N
T8N
T7N
T6N
T5N
T4N
T3N
T2N
T1N
T1S
T2S
T3S
T4S
T5S
MN
NN
MM
NM

EXPLANATION:
WATER QUALITY
GOOD
POOR
EXCEEDS CRITERIA
ANALYSIS BY FUGRO NATIONAL
ANALYSIS FROM OTHER DATA SOURCES
NOTE: POTABLE WATER QUALITY CRITERIA ARE LISTED IN APPENDIX C
NORTH
SCALE 1:250,000
STATUTE MILES
KILOMETERS
WATER QUALITY
CAVE VALLEY, NEVADA
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
FIGURE
D-2
FUGRO NATIONAL, INC.
PN QN
PM QM


EXPLANATION
WATER QUALITY
GOOD
POOR
EXCEEDS CRITERIA
ANALYSIS BY FUGRO NATIONAL
ANALYSIS FROM OTHER DATA SOURCES
NOTE: POTABLE WATER QUALITY CRITERIA ARE LISTED IN APPENDIX C1-1
NORTH
SCALE 1:250,000
0 5 10
STATUTE MILES
0 5 10
KILOMETERS
DELAMAR VALLEY
RAHRANAGAT NATIONAL
WILDLIFE REFUGE
CATHEDRAL GORGE STATE PARK
WATER QUALITY
DRY LAKE VALLEY, NEVADA
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
DRAWING
D1-3
FUGRO NATIONAL, INC.


STUDY AREA BOUNDARY
EXPLANATION
WATER QUALITY
GOOD
POOR
EXCEEDS CRITERIA
ANALYSIS BY FUGRO NATIONAL
ANALYSIS FROM OTHER DATA SOURCES
NOTE: POTABLE WATER QUALITY CRITERIA ARE LISTED IN APPENDIX E1-1.
NORTH
SCALE 1:250,000
STATUTE MILES
KILOMETERS
TOOELE COUNTY
JUAB COUNTY
MILLARD COUNTY
SAND DUNES
SAND MOUNTAIN
DUGWAY PROVING GROUND
WATER QUALITY
DUGWAY VALLEY, UTAH
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
DRAWING
D1-4
FUGRO NATIONAL, INC.
15 MAY 80


EN-TR-38
R16W
R15W
R14W
R13W
R12W
R11W
R10W
R9W
R8W
T9S
T10S
T11S
T12S
T13S
T14S
T15S
DUGWAY
PROVING GROUND
GREAT SALT LAKE
DESERT
DUGWAY VALLEY
FISH SPRINGS FLAT
EXPLANATION
WATER QUALITY
GOOD
POOR
EXCEEDS CRITERIA
ANALYSIS BY FUGRO NATIONAL
ANALYSIS FROM OTHER DATA SOURCES
NOTE: POTABLE WATER QUALITY CRITERIA ARE LISTED IN APPENDIX C1-1.
NORTH
SCALE 1:250,000
STATUTE MILES
KILOMETERS
JUAB COUNTY
MILLARD COUNTY
WATER QUALITY
FISH SPRINGS FLAT, UTAH
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
DRAWING NO.
D1-5
FUGRO NATIONAL, INC.
15 MAY 80


EXPLANATION
WATER QUALITY
GOOD
POOR
EXCEEDS CRITERIA
ANALYSIS BY FUGRO NATIONAL
ANALYSIS FROM OTHER DATA SOURCES
NOTE: POTABLE WATER QUALITY CRITERIA ARE LISTED IN APPENDIX C1-1.
NORTH
SCALE 1:250 000
STATUTE MILES
KILOMETERS
HUMBOLDT NATIONAL FOREST
SPRING VALLEY
MILLARD COUNTY
BEAVER COUNTY
WATER QUALITY
HAMLIN VALLEY, NEVADA-UTAH
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
DRAWING
C1-6
FUGRO NATIONAL, INC.


15 MAY 80
R50E
R51E
R52E
R53E
R54E
R55E
R56E
EXPLANATION
GOOD
POOR
EXCEEDS CRITERIA
ANALYSIS BY FUGRO NATIONAL
ANALYSIS FROM OTHER DATA SOURCES
NOTE: POTABLE WATER QUALITY CRITERIA ARE LISTED IN APPENDIX C1-1.
T19N
T18N
T17N
T16N
T14N
T13N
T12N
T6N
T5N
HOT CREEK VALLEY
NORTH
SCALE 1:250,000
STATUTE MILES
KILOMETERS
WATER QUALITY
LITTLE SMOKY VALLEY, NEVADA
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
DRAWING
C1-7
FUGRO NATIONAL, INC.


EXPLANATION
GOOD
POOR
EXCEEDS CRITERIA
ANALYSIS BY FUGRO NATIONAL
ANALYSIS FROM OTHER DATA SOURCES
NOTE: POTABLE WATER QUALITY CRITERIA ARE LISTED IN APPENDIX C1-1.
NORTH
SCALE 1:250,000
STATUTE MILES
KILOMETERS
WATER QUALITY
PINE VALLEY, UTAH
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
DRAWING
C1-8
FUGRO NATIONAL, INC.

FN-TR-36

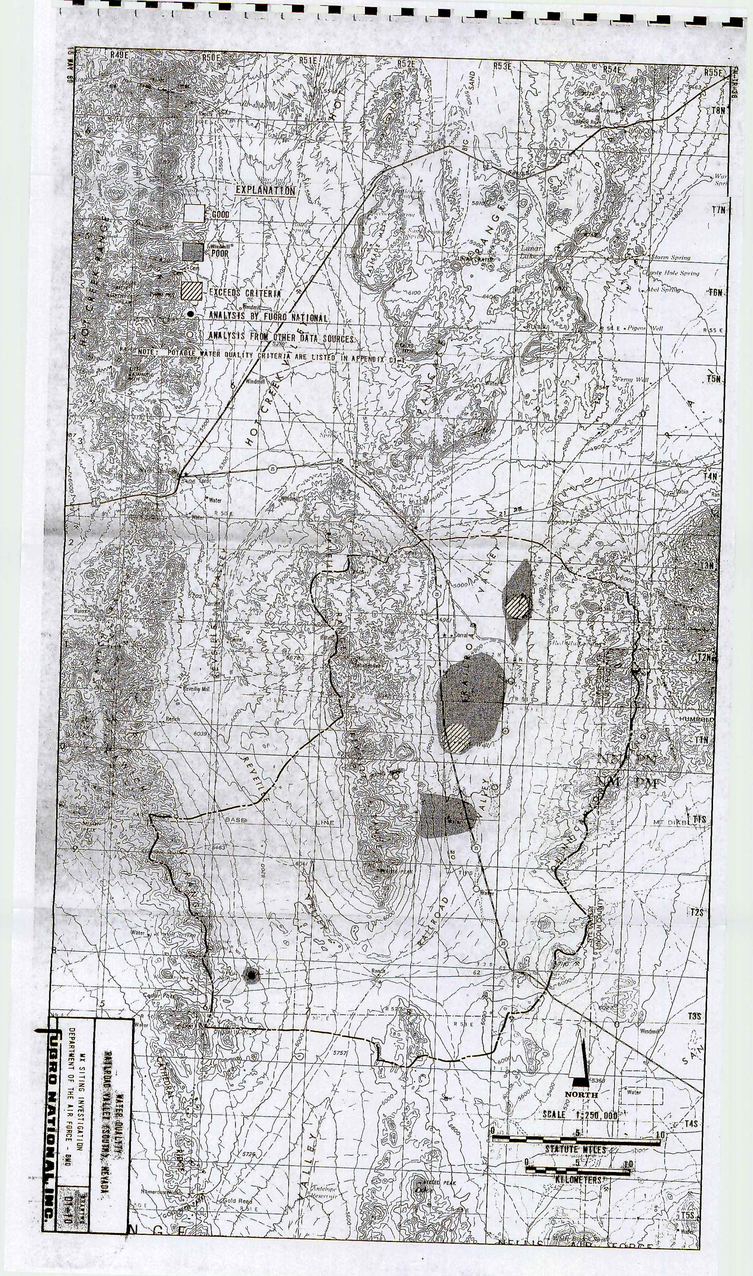
WATER QUALITY
RAILROAD VALLEY (NORTH), NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

DRAWING
D1-9

FUGRO NATIONAL, INC.

15 MAY 80


EXPLANATION
GOOD
POOR
EXCEEDS CRITERIA
ANALYSIS BY FUGRO NATIONAL
ANALYSIS FROM OTHER DATA SOURCES
NOTE: POTABLE WATER QUALITY CRITERIA ARE LISTED IN APPENDIX C
HOT CREEK RANGE
HOT CREEK VALLEY
RAILROAD VALLEY
R49E
R50E
R51E
R52E
R53E
R54E
R55E
T6N
T7N
T5N
T4N
T3N
T2N
T1N
T1S
T2S
T3S
T4S
NORTH
SCALE 1:250,000
STATUTE MILES
KILOMETERS
FUGRO NATIONAL, INC.
WATER QUALITY
ANTELOPE VALLEY, NEVADA
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - DNO
DRAWING
D1-10

15 MAY 80

FN-TR-38

R61E R62E R63E R64E R65E R66E

T2N T1N T1S T2S T3S T4S T5S T6S T7S T8S T9S

EXPLANATION

CONTOURS:

- DRAINAGE DIVIDE
- 50 — POTENTIOMETRIC SURFACE ELEVATION
- 5200 — DEPTH TO POTENTIOMETRIC SURFACE

WATER LEVEL MEASUREMENTS

- MEASURED BY FUGRO NATIONAL
- OTHER DATA SOURCES

DISCHARGE MEASUREMENTS:

STREAMS

- MEASURED BY FUGRO NATIONAL
- OTHER DATA SOURCES

SPRINGS

- MEASURED BY FUGRO NATIONAL
- OTHER DATA SOURCES

- AQUIFER TEST
- WATER TABLE MONITORING BORINGS
- AREA OF HIGH EVAPOTRANSPIRATION

NOTES:

(1) POTENTIOMETRIC AND DEPTH TO WATER CONTOURS WERE CONSTRUCTED FROM 1:62,500 SCALE BASE MAP AND REPRESENT TRUE ELEVATIONS AND DEPTHS. THESE HYDROLOGIC DATA WERE REDUCED AND TRANSFERRED TO THIS 1:250,000 SCALE BASE MAP WHICH MAY HAVE RESULTED IN SOME APPARENT DISCREPANCY WITH THE TOPOGRAPHIC CONTOURS.

(2) CONTOUR MAPS COMPILED DURING THIS INVESTIGATION ARE BASED ON THE LIMITED DATA AVAILABLE, AND AS NEW DATA BECOMES AVAILABLE, MAPS WILL BE UPDATED AND REFINED.

NORTH

SCALE 1:250,000

0 5 10 STATUTE MILES

0 5 10 KILOMETERS

PAHROC VALLEY

PAHROC SUMMIT PASS

DELAMAR VALLEY

PAHRANAGAT NATIONAL WILDLIFE REFUGE

Lower Pahranagat Lake

Delamar Lake

Ash Springs

Alamo

Corral

Water

Ranch

Bonnett Pass

Highland Spr

Stampede Gap

Arizona Peak

Klondike Canyon

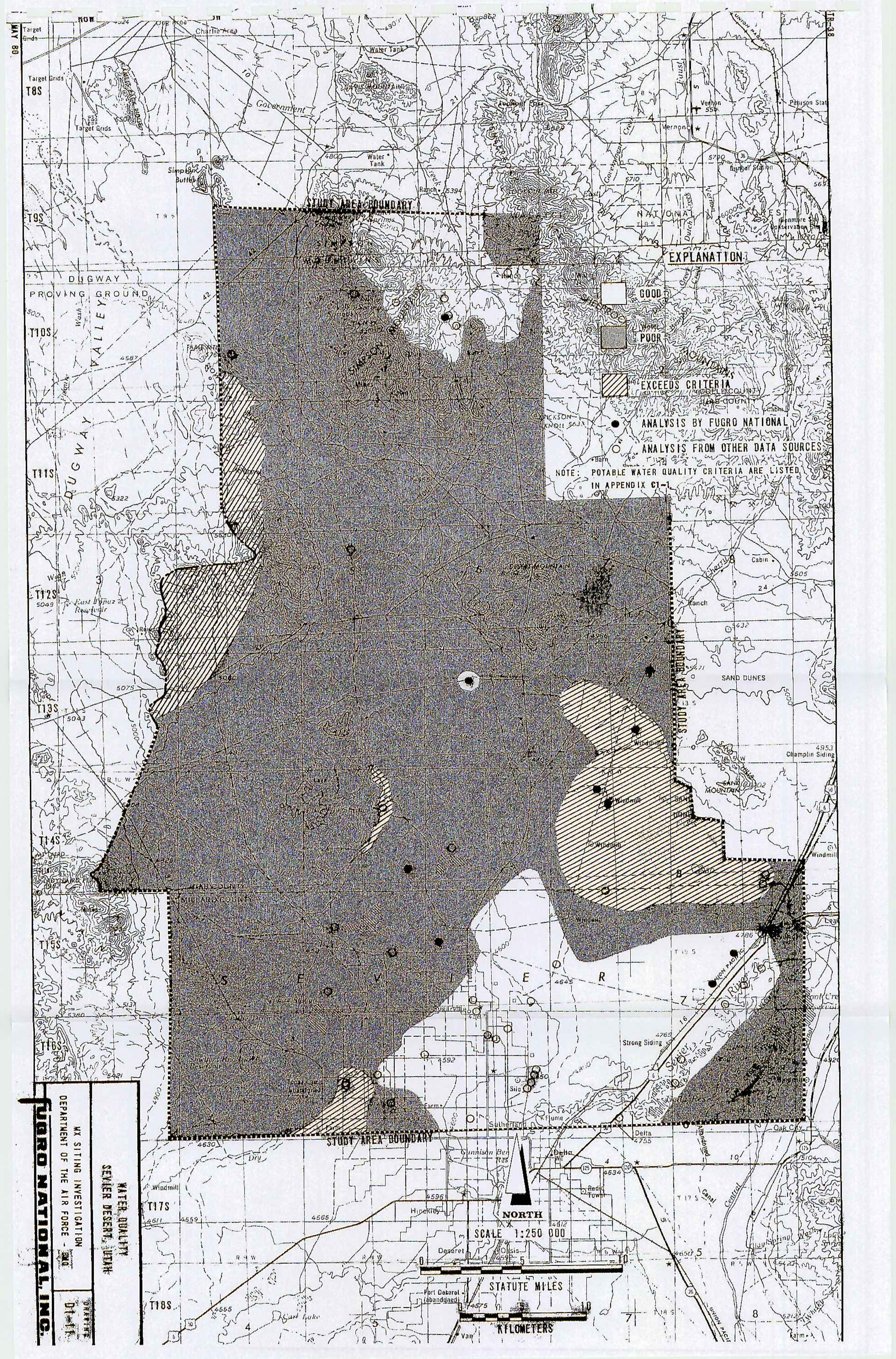
White River

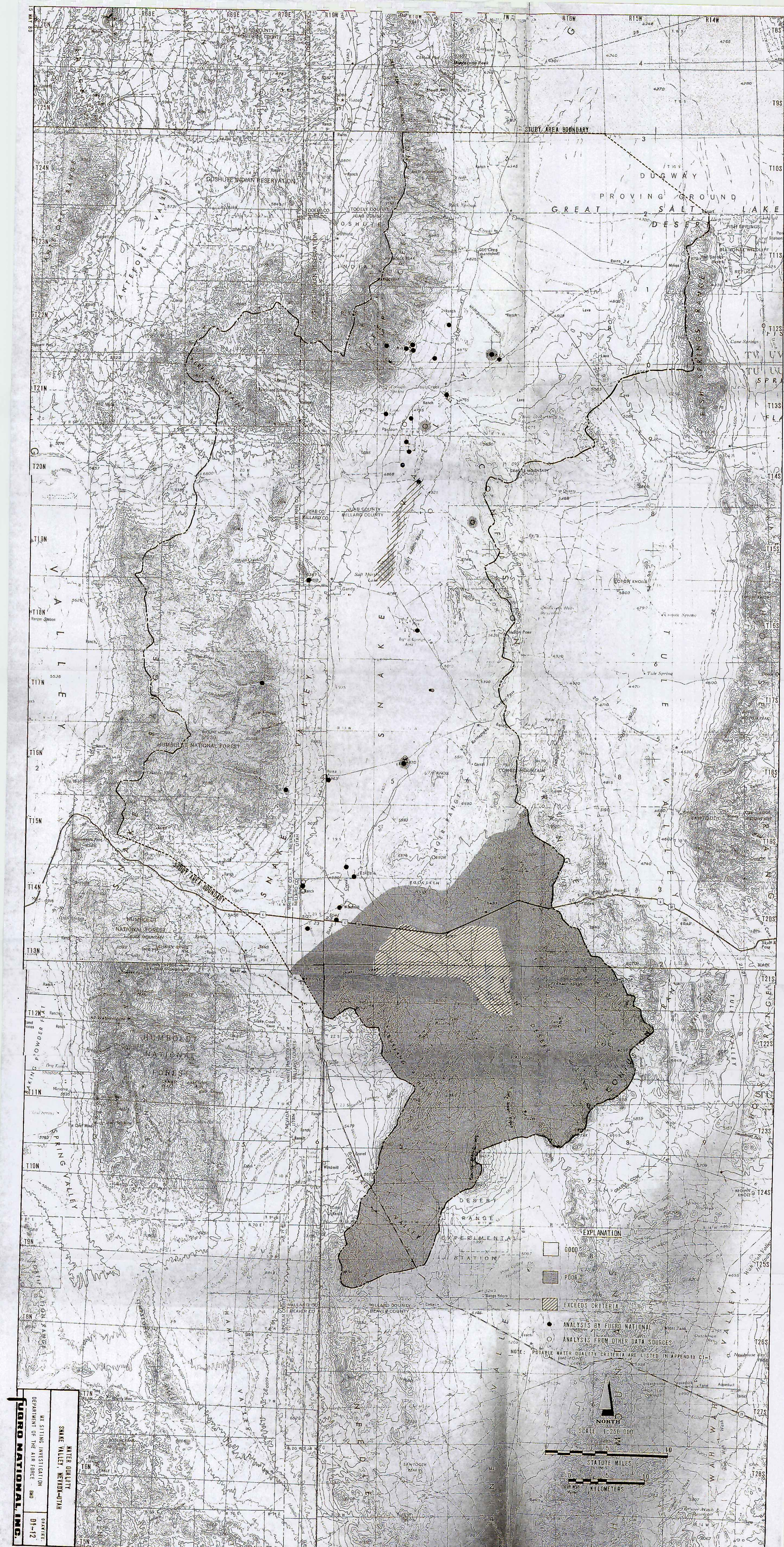
POTENTIOMETRIC LEVELS
DELAMAR VALLEY, NEVADA

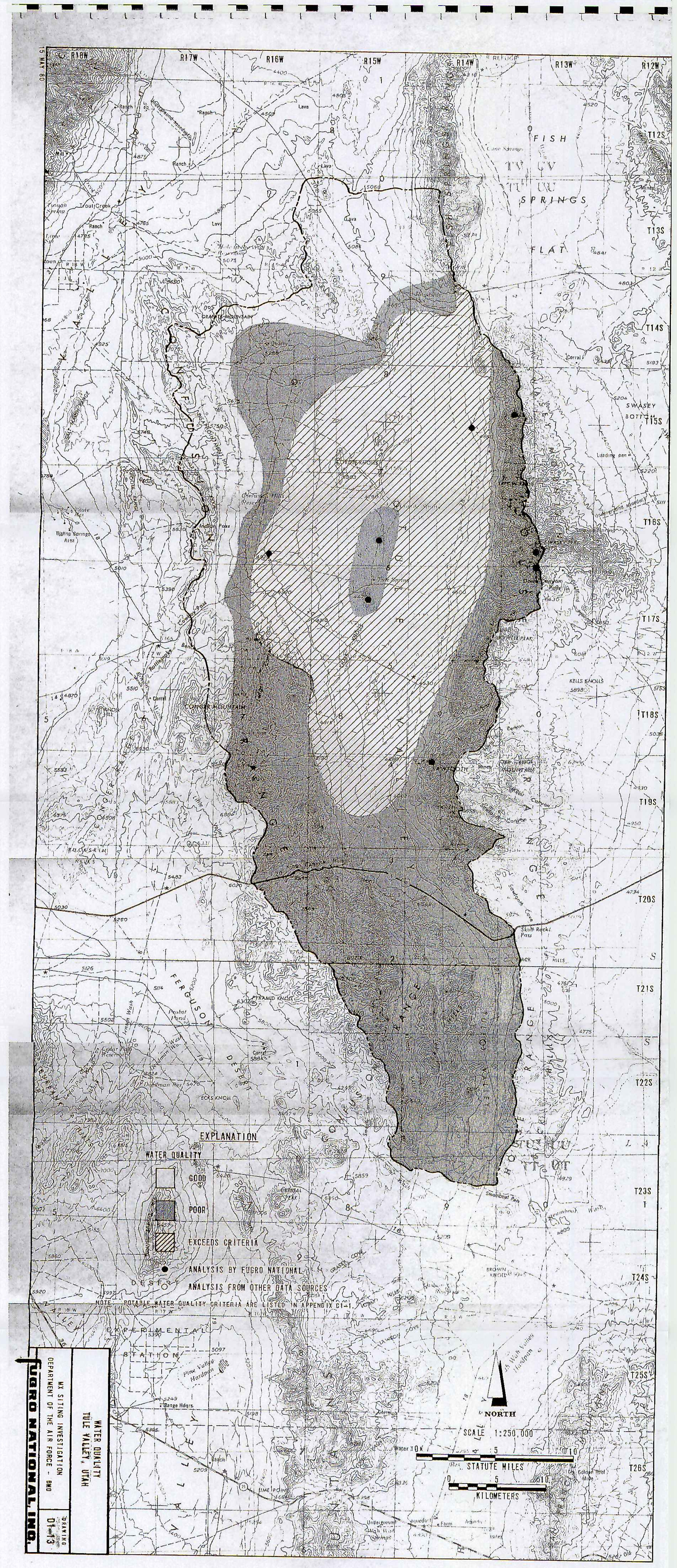
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

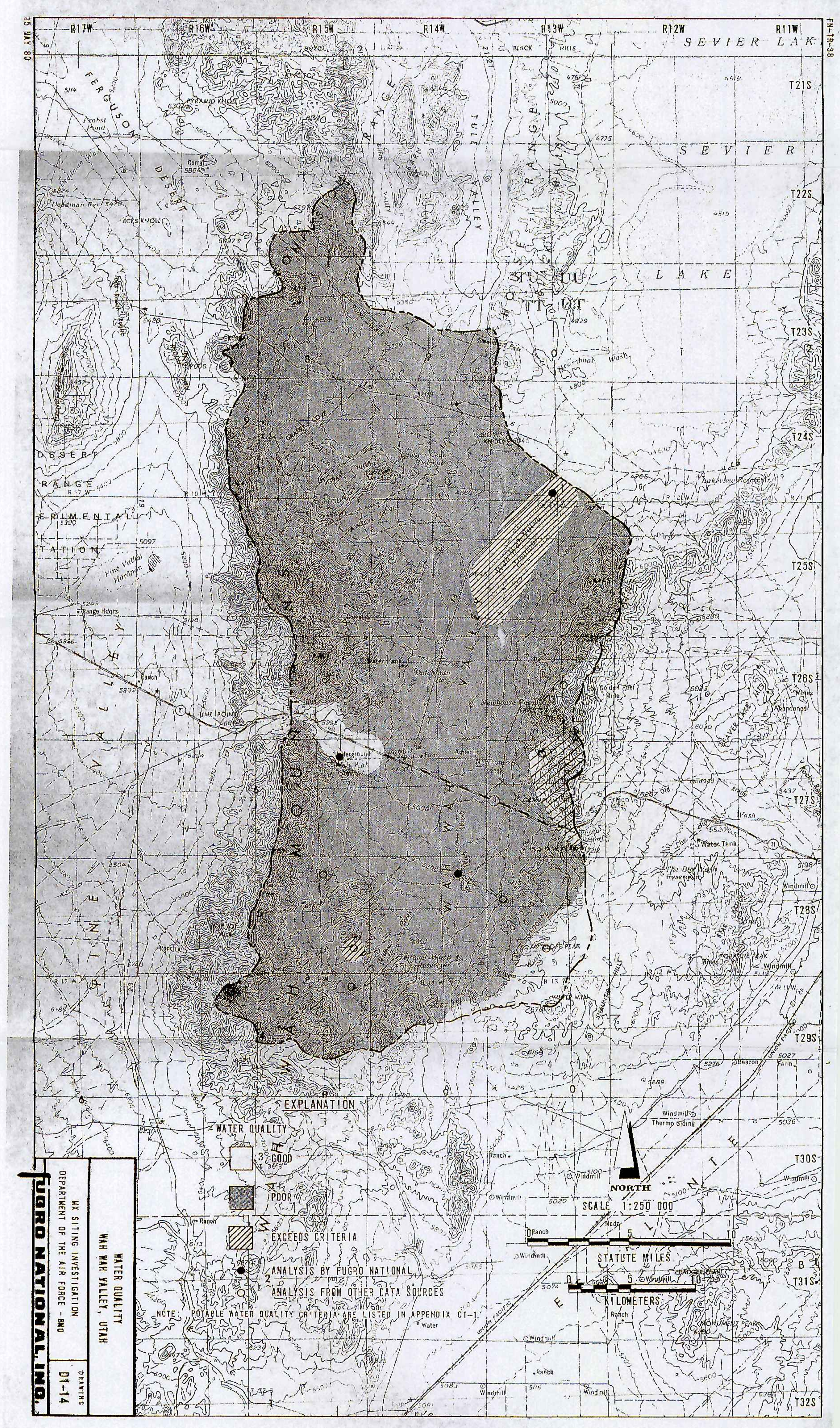
DRAWING 81-3

FUGRO NATIONAL, INC.

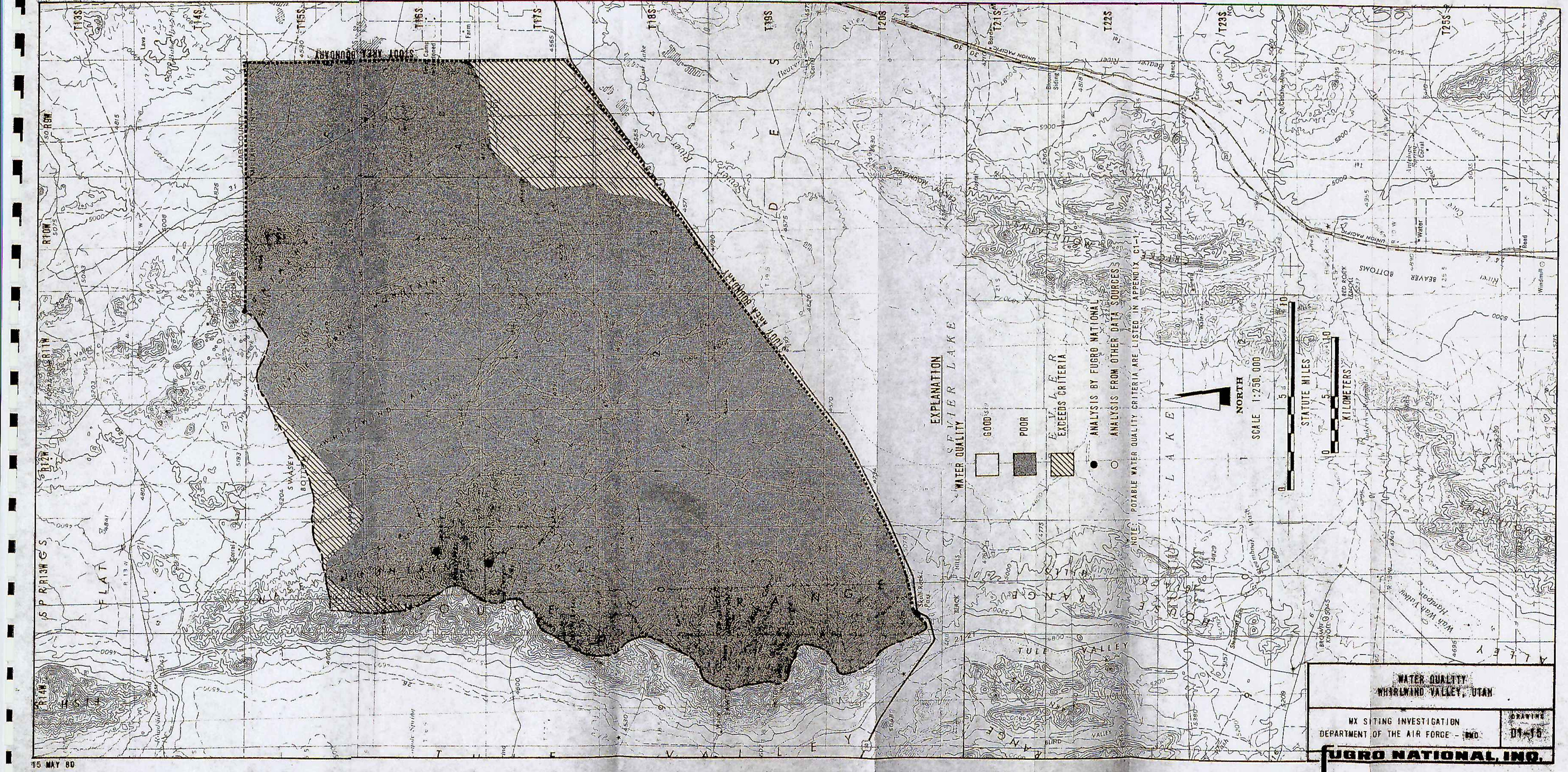

EXPLANATION
GOOD
POOR
EXCEEDS CRITERIA
ANALYSIS BY FUGRO NATIONAL
ANALYSIS FROM OTHER DATA SOURCES
NOTE: POTABLE WATER QUALITY CRITERIA ARE LISTED IN APPENDIX C1-1.
STUDY AREA BOUNDARY
DUGWAY PROVING GROUND
SAND DUNES
Strong Siding
NORTH
SCALE 1:250 000
STATUTE MILES
KILOMETERS
WATER QUALITY
SEVIER DESERT, UTAH
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
FUGRO NATIONAL, INC.


EXPLANATION
GOOD
POOR
EXCEEDS CRITERIA
ANALYSIS BY FUGRO NATIONAL
ANALYSIS FROM OTHER DATA SOURCES
NOTE: POTABLE WATER QUALITY CRITERIA ARE LISTED IN APPENDIX C1-1.
NORTH
SCALE 1:250 000
STATUTE MILES
KILOMETERS
SNAKE
VALLEY
DUGWAY PROVING GROUND
GREAT SALT LAKE DESERT
GOSHUTE INDIAN RESERVATION
HUMBOLDT NATIONAL FOREST
DESERT RANGE EXPERIMENTAL STATION
WATER QUALITY
SNAKE VALLEY, NEVADA-UTAH
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
DRAWING
D1-12
FUGRO NATIONAL, INC.


EXPLANATION
WATER QUALITY
GOOD
POOR
EXCEEDS CRITERIA
ANALYSIS BY FUGRO NATIONAL
ANALYSIS FROM OTHER DATA SOURCES
NOTE: POTABLE WATER QUALITY CRITERIA ARE LISTED IN APPENDIX C1-1.
NORTH
SCALE 1:250,000
STATUTE MILES
KILOMETERS
WATER QUALITY
TULE VALLEY, UTAH
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
DRAWING
C1-13
FUGRO NATIONAL, INC.



15 MAY 80
FN-TR-38
R17W
R16W
R15W
R14W
R13W
R12W
R11W
SEVIER LAKE
SEVIER
LAKE
T21S
T22S
T23S
T24S
T25S
T26S
T27S
T28S
T29S
T30S
T31S
T32S
DESERT
RANGE
EXPLANATION
WATER QUALITY
GOOD
POOR
EXCEEDS CRITERIA
ANALYSIS BY FUGRO NATIONAL
ANALYSIS FROM OTHER DATA SOURCES
NOTE: POTABLE WATER QUALITY CRITERIA ARE LISTED IN APPENDIX C1-1.
NORTH
SCALE 1:250 000
STATUTE MILES
KILOMETERS
WATER QUALITY
WAH WAH VALLEY, UTAH
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
DRAWING
D1-14
FUGRO NATIONAL, INC.


FN-TR-38
STUDY AREA BOUNDARY
MILLARD COUNTY
JUAB COUNTY
EXPLANATION
WATER QUALITY
GOOD
POOR
EXCEEDS CRITERIA
ANALYSIS BY FUGRO NATIONAL
ANALYSIS FROM OTHER DATA SOURCES
NOTE: POTABLE WATER QUALITY CRITERIA ARE LISTED IN APPENDIX C1-1.
NORTH
SCALE 1:250,000
STATUTE MILES
KILOMETERS
SEVIER LAKE
TULE VALLEY
UNION PACIFIC
BEAVER BOTTOMS
WATER QUALITY
WHIRLWIND VALLEY, UTAH
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
DRAWING
D1-15
FUGRO NATIONAL, INC.
15 MAY 80

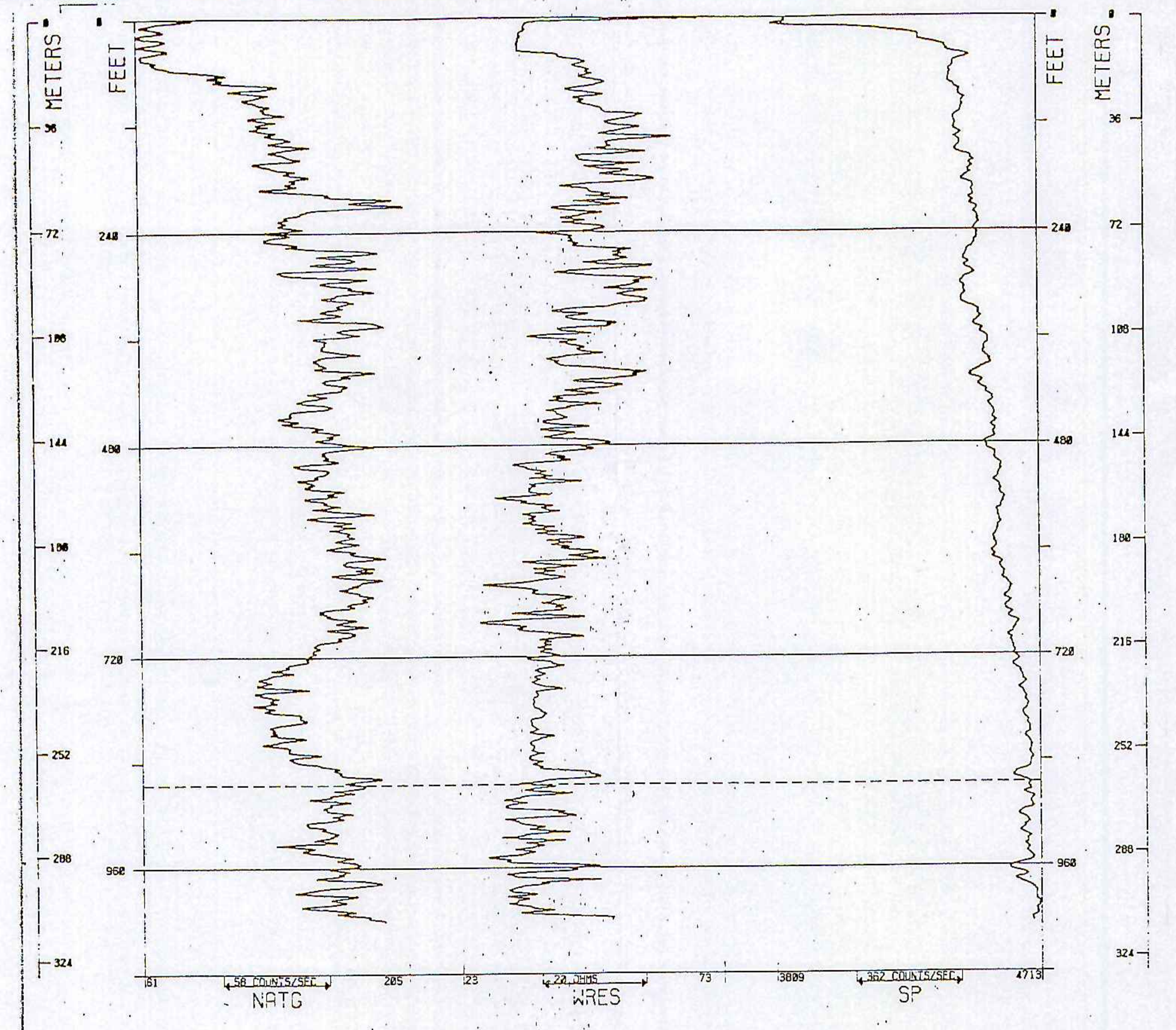
WATER QUALITY
WHITE RIVER VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

DRAWING
D1-16

FUGRO NATIONAL, INC.

FN-TR-38



WASHINGTON STATE UNIVERSITY

COLLEGE OF ENGINEERING

GEOLOGICAL ENGINEERING SECTION
WELL LOG PROCESSING SYSTEM

NAME OF WELL	DELAMAR OW-3
DATE LOGGED	02/21/80
STATE	NEVADA
COUNTY	LINCOLN
LOCATION	06S/63E-12D
SURFACE ELEVATION	4675
TOTAL DEPTH LOGGED	1025
DEPTH TO WATER LEVEL	865
CASING & LINERS:	

CASINGS: 0-630' AND 0-1000'.

LEGEND

LOG TITLES

NATG - - NATURAL GAMMA
GG - - - GAMMA GAMMA
NN - - - NEUTRON NEUTRON
NG - - - NEUTRON GAMMA
FT - - - FLUID TEMPERATURE
FR - - - FLUID RESISTIVITY
CALP - - CALIPER
SP - - - SPONTANEOUS POTENTIAL
WRES - - WALL RESISTIVITY
FMTR - - FLOW METER
SNIC - - SONIC

DENSITY (GG-LOG) INCREASES ⟶
POROSITY (NN-LOG) INCREASES ⟵
WATER LEVEL - - - -

NOTE: SCALE MAY CHANGE ABOVE WATER LEVEL

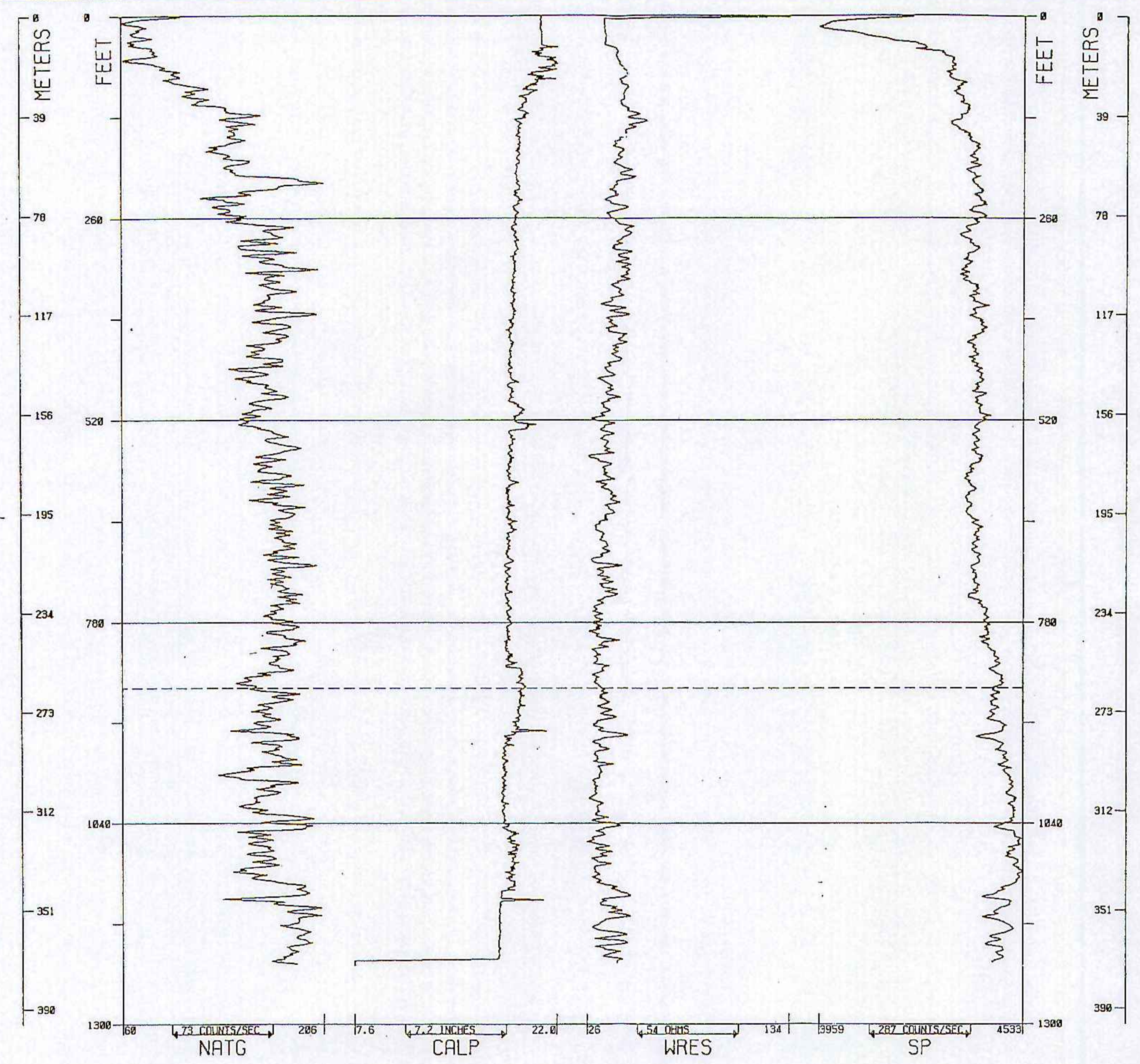
BOREHOLE GEOPHYSICAL LOG
OBSERVATION WELL
DELAMAR VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

FIGURE H1.3-1

FUGRO NATIONAL, INC.

15 MAY 80



WASHINGTON STATE UNIVERSITY

COLLEGE OF ENGINEERING

GEOLOGICAL ENGINEERING SECTION
WELL LOG PROCESSING SYSTEM

NAME OF WELL	DELAMAR TW-2
DATE LOGGED	03/10/80
STATE	NEVADA
COUNTY	LINCOLN
LOCATION	06S/63E-12D
SURFACE ELEVATION	4670
TOTAL DEPTH LOGGED	1226
DEPTH TO WATER LEVEL	865
CASING & LINERS:	

CASINGS: 0-1195 FT.

LEGEND

LOG TITLES

NATG - - NATURAL GAMMA
GG - - - GAMMA GAMMA
NN - - - NEUTRON NEUTRON
NG - - - NEUTRON GAMMA
FT - - - FLUID TEMPERATURE
FR - - - FLUID RESISTIVITY
CALP - - CALIPER
SP - - - SPONTANEOUS POTENTIAL
WRES - - WALL RESISTIVITY
FMTR - - FLOW METER
SNIC - - SONIC

DENSITY (GG-LOG) INCREASES ⟶
POROSITY (NN-LOG) INCREASES ⟵
WATER LEVEL - - - -

NOTE: SCALE MAY CHANGE ABOVE WATER LEVEL

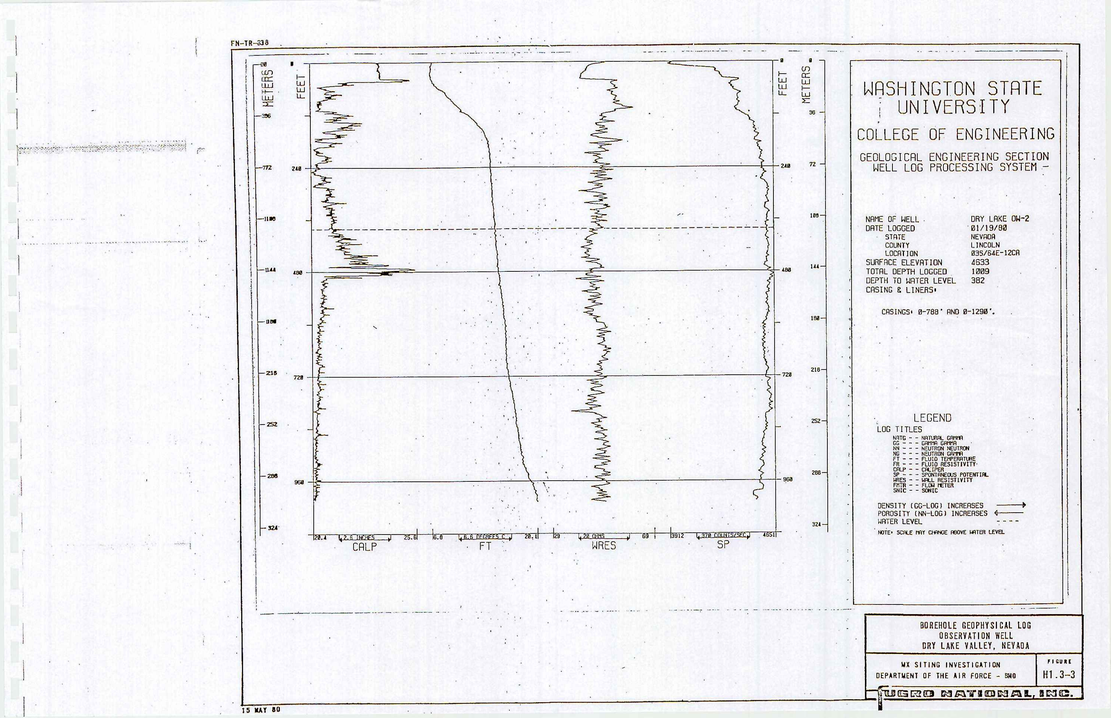
BOREHOLE GEOPHYSICAL LOG
TEST WELL
DELAMAR VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

FIGURE
H1.3-2

FUGRO NATIONAL, INC.

15 MAY 80


FN-TR-330
METERS
FEET
CALP
FT
WRES
SP
WASHINGTON STATE UNIVERSITY
COLLEGE OF ENGINEERING
GEOLOGICAL ENGINEERING SECTION
WELL LOG PROCESSING SYSTEM
NAME OF WELL DRY LAKE OW-2
DATE LOGGED 01/19/80
STATE NEVADA
COUNTY LINCOLN
LOCATION 09S/64E-12CA
SURFACE ELEVATION 4533
TOTAL DEPTH LOGGED 1089
DEPTH TO WATER LEVEL 382
CASING & LINERS:
CASINGS: 0-788' AND 0-1290'.
LEGEND
LOG TITLES
DENSITY (GG-LOG) INCREASES
POROSITY (NN-LOG) INCREASES
WATER LEVEL
NOTE: SCALE MAY CHANGE ABOVE WATER LEVEL
BOREHOLE GEOPHYSICAL LOG
OBSERVATION WELL
DRY LAKE VALLEY, NEVADA
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - 1980
FIGURE
H1.3-3
UGRO NATIONAL, INC.
15 MAY 80

15 MAY 80

R61E R62E R63E R64E R65E R66E R67E

T8N T7N T6N T5N T4N T3N T2N T1N T1S T2S T3S T4S T5S T6S T7S T8S T9S T10S

NORTH

SCALE 1:250,000

0 5 10 STATUTE MILES

0 5 10 KILOMETERS

EXPLANATION

CONTOURS

DRAINAGE DIVIDE

50 DEPTH TO POTENTIOMETRIC SURFACE

5200 POTENTIOMETRIC SURFACE ELEVATION

WATER LEVEL MEASUREMENTS

MEASURED BY FUGRO NATIONAL

OTHER DATA SOURCES

DISCHARGE MEASUREMENTS

STREAMS

MEASURED BY FUGRO NATIONAL

OTHER DATA SOURCES

SPRINGS

MEASURED BY FUGRO NATIONAL

OTHER DATA SOURCES

AQUIFER TEST

WATER TABLE MONITORING BORINGS

AREA OF HIGH EVAPOTRANSPIRATION

NOTES: (1) POTENTIOMETRIC AND DEPTH TO WATER CONTOURS WERE CONSTRUCTED FROM 1:62,500 SCALE BASE MAP AND REPRESENT TRUE ELEVATIONS AND DEPTHS. THESE HYDROLOGIC DATA WERE REDUCED AND TRANSFERRED TO THIS 1:250,000 SCALE BASE MAP WHICH MAY HAVE RESULTED IN SOME APPARENT DISCREPANCY WITH TOPOGRAPHIC CONTOURS.

(2) CONTOUR MAPS COMPILED DURING THIS INVESTIGATION ARE BASED ON THE LIMITED DATA AVAILABLE, AND AS NEW DATA BECOMES AVAILABLE, MAPS WILL BE UPDATED AND REFINED.

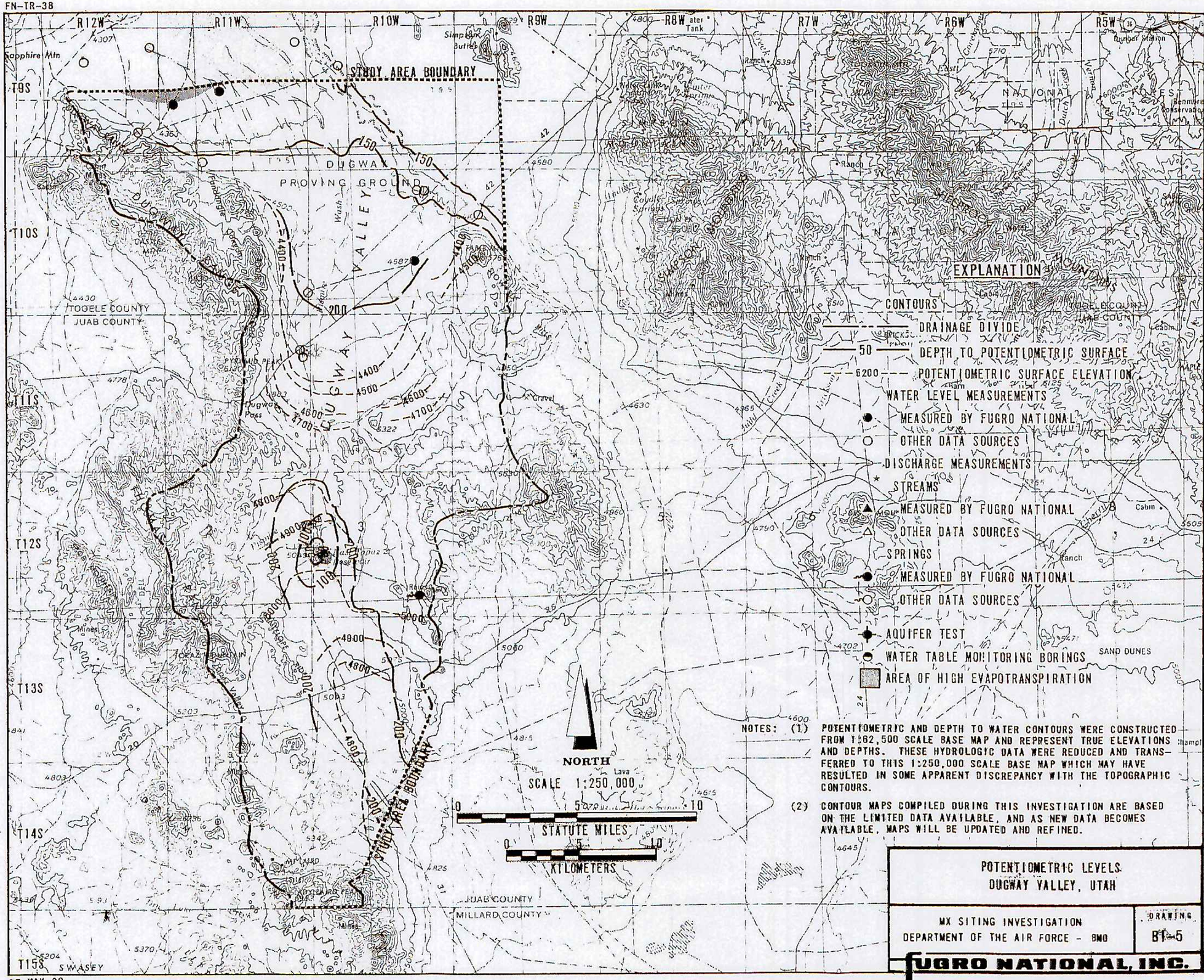
POTENTIOMETRIC LEVELS
DRY LAKE VALLEY, NEVADA

MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

DRAWING B1-4

FUGRO NATIONAL, INC.

FN-TR-38



NOTES: (1) POTENTIOMETRIC AND DEPTH TO WATER CONTOURS WERE CONSTRUCTED FROM 1:62,500 SCALE BASE MAP AND REPRESENT TRUE ELEVATIONS AND DEPTHS. THESE HYDROLOGIC DATA WERE REDUCED AND TRANSFERRED TO THIS 1:250,000 SCALE BASE MAP WHICH MAY HAVE RESULTED IN SOME APPARENT DISCREPANCY WITH THE TOPOGRAPHIC CONTOURS.

(2) CONTOUR MAPS COMPILED DURING THIS INVESTIGATION ARE BASED ON THE LIMITED DATA AVAILABLE, AND AS NEW DATA BECOMES AVAILABLE, MAPS WILL BE UPDATED AND REFINED.

POTENTIOMETRIC LEVELS
DUGWAY VALLEY, UTAH

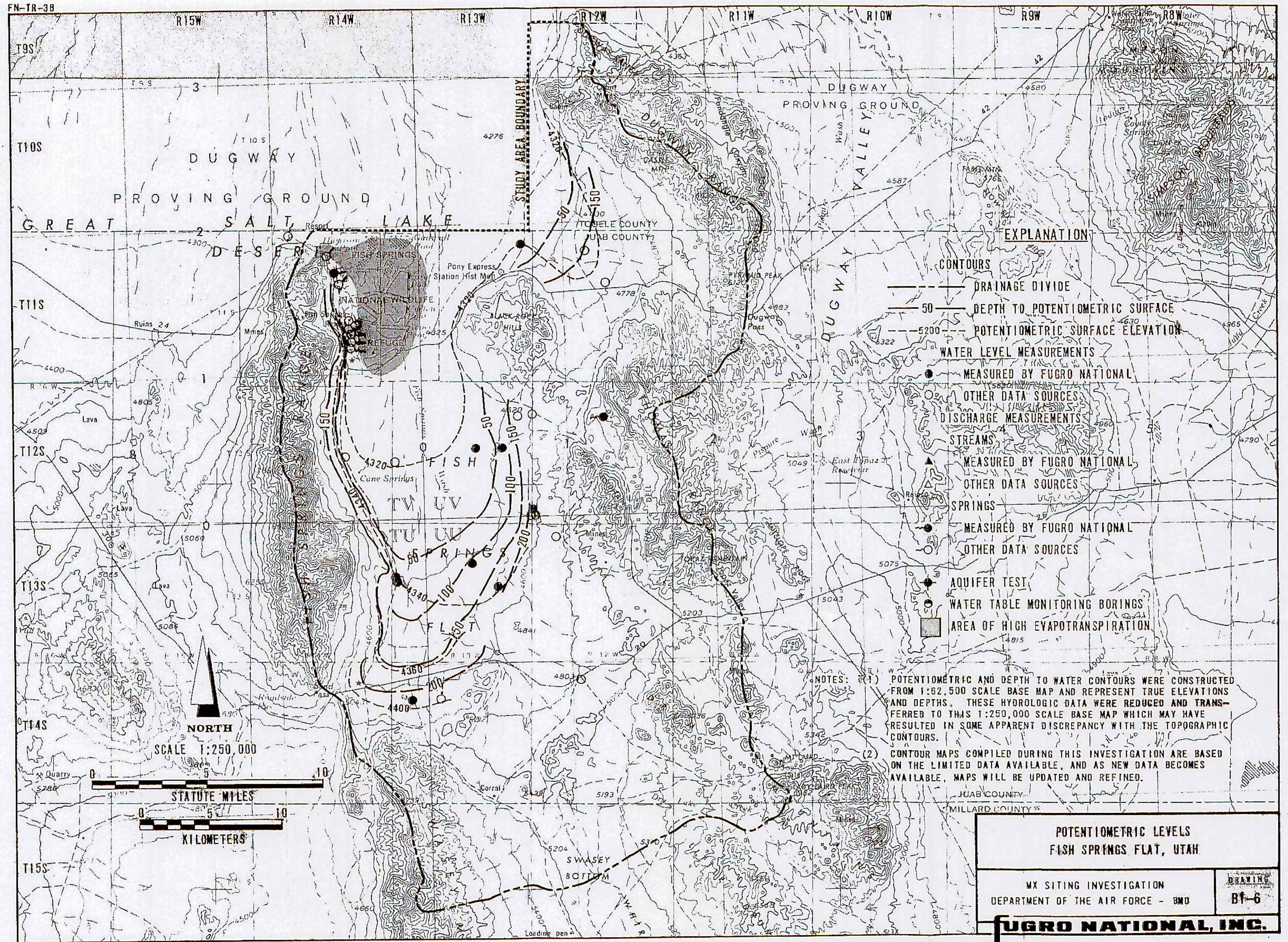
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO

DRAWING
B1-5

FUGRO NATIONAL, INC.

15 MAY 80

FN-TR-38



15 MAY 80


30 MAY 80
HUMBOLDT NATIONAL FOREST
STUDY AREA BOUNDARY
SPRING VALLEY
HAMLIN VALLEY
NORTH
SCALE 1:250,000
STATUTE MILES
KILOMETERS
EXPLANATION
CONTOURS
DRAINAGE DIVIDE
POTENTIOMETRIC SURFACE ELEVATION
DEPTH TO POTENTIOMETRIC SURFACE
WATER LEVEL MEASUREMENTS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
DISCHARGE MEASUREMENTS
STREAMS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
SPRINGS
MEASURED BY FUGRO NATIONAL
OTHER DATA SOURCES
AQUIFER TEST
WATER TABLE MONITORING BORINGS
AREA OF HIGH EVAPOTRANSPIRATION
NOTES: (1) POTENTIOMETRIC AND DEPTH TO WATER CONTOURS WERE CONSTRUCTED FROM 1:62,500 SCALE BASE MAP AND REPRESENT TRUE ELEVATIONS AND DEPTHS. THESE HYDROLOGIC DATA WERE REDUCED AND TRANSFERRED TO THIS 1:250,000 SCALE BASE MAP WHICH MAY HAVE RESULTED IN SOME APPARENT DISCREPANCY WITH THE TOPOGRAPHIC CONTOURS.
(2) CONTOUR MAPS COMPILED DURING THIS INVESTIGATION ARE BASED ON THE LIMITED DATA AVAILABLE, AND AS NEW DATA BECOMES AVAILABLE, MAPS WILL BE UPDATED AND REFINED.
POTENTIOMETRIC LEVELS
HAMLIN VALLEY, NEVADA-UTAH
MX SITING INVESTIGATION
DEPARTMENT OF THE AIR FORCE - BMO
FUGRO NATIONAL, INC.
DRAWING
B1-7