

ExxonMobil
Global Services Company
Colony Shale Oil Project
P.O. Box 2567
Houston, Texas 77252-2567



October 30, 2012

RECEIVED

Colorado Division of Reclamation Mining & Safety
Grand Junction Office
101 South 3rd Street, Suite 301
Grand Junction, Colorado 81501
Attention: Travis Marshall

NOV 12 2012
GRAND JUNCTION FIELD OFFICE
DIVISION OF
RECLAMATION MINING & SAFETY

Re: Mined Land Reclamation Board Permit No. M-1980-047
Colony Shale Oil Project
WATER MONITORING INFORMATION

Dear Mr. Marshall,

Please find two (2) copies of Exxon Mobil's HYDROLOGY MONITORING REPORT for the 3rd quarter 2012. Should you have general questions, please contact me at 281-654-6246. In addition, technical questions may be addressed to Roy Springfield at 713-431-7889.

Respectfully submitted,

Tom L. Adams
Colony Supervisor
ExxonMobil Global Services Company
Acting for and on behalf of
Exxon Mobil Corporation

Enclosures

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
MW-12 WATER QUALITY - Metals

Date	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Hexavalent Cr(VI)	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Silica	Si	Ag	Na	Ti	U	V	Zn
7/19/2012 U	U	U	0.0046	0.045 U	U	0.12 U	U	71.6	0.0016 U	U	U	0.0006 U	U	U	0.04	69.7 U	U	U	0.03 U	U	U	2.7	0.0102	20.7	9.7 U	87.4 U	U	0.005	0.008 U	U
8/21/2012 U	U	U	0.0044	0.043 U	U	0.11 U	U	75.7	0.0017 U	U	U	0.0007 U	U	U	0.04	73.6 U	U	U	0.05 U	U	U	2.9	0.009	21.6	10.1 U	92.3 U	U	0.0058	0.01 U	U
9/18/2012 U	U	U	0.0047	0.045 U	U	0.12 U	U	73.7	0.0017 U	U	U	U	U	U	0.04	71.4 U	U	U	0.05 U	U	U	3	0.0112	21	9.8 U	90.7 U	U	0.0054	0.008 U	U

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
MW-12 WATER QUALITY - Anions

Date	T. Alk.	BOD ₅	COD	Cl	Cond	CN _{total} (mg/L)	F	Hard	NO ₃ -N	IO ₃ -N+NO ₂ -N	NO ₂ -N	NH ₃ -N	TKN	o-P	P _{total}	TDS	SAR	SO ₄	S ²⁻	SCN	pH s.u.
7/19/2012	322 U	U	U	12	1110 U	U	0.9	465	3.06	3.06 U	U	U	0.4	0.03	0.02	790	1.78	280 U	U	U	8.2
8/21/2012	324 U	U	U	12	1170 U	U	U	492	3.22	3.22 U	U	U	0.2	0.02	0.02	790	1.83	290 U	U	U	8.4
9/18/2012	330 U	U	U	14	1090 U	U	1	478	2.94	2.94 U	U	U	U	0.03	0.02	790	1.83	290 U	U	U	8.3

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
MW-12 WATER QUALITY - Organics

Date	Benzene µg/L	Et-Benzene µg/L	m/p xylene µg/L	o xylene µg/L	Toluene µg/L	BTEX µg/L	TPH C10-C28 µg/L	2-Methylnaphthalene µg/L	Acenaphthene µg/L	Acenaphthylene µg/L	Anthracene µg/L	Benzo(a)anthracene µg/L	Benzo(a)pyrene µg/L	Benzo(b)fluoranthene µg/L	Benzo(g,h,i)perylene µg/L	Benzo(k)fluoranthene µg/L	Chrysene µg/L	Dibenzo(a,h)anthracen µg/L	Fluoranthene µg/L	Fluorene µg/L	Indeno(1,2,3-cd)pyrene µg/L	Naphthalene µg/L	Phenanthrene µg/L	Pyrene µg/L	O&G µg/L	Phenol mg/L
7/19/2012 U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
8/21/2012 U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
9/18/2012 U	U	U	U	U	U	U	0.1	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.004

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
THA6 WATER QUALITY - Metals

Date	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Hexavalent Cr(VI) mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L	Hg mg/L	Mo mg/L	Ni mg/L	K mg/L	Se mg/L	Silica mg/L	Si mg/L	Ag mg/L	Na mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L
7/19/2012 U	U	U	0.0034	0.056 U	U	0.14 U	U	82.7	0.0018 U	U	U	0.0007 U	U	U	0.05	79.9 U	U	U	0.05 U	U	2.4	0.0169	21	9.8 U	96.4 U	U	0.0061	0.005 U	U	
8/21/2012 U	U	U	0.0034	0.052 U	U	0.14 U	U	85	0.0018 U	U	U	0.001 U	U	U	0.04	81.5 U	U	U	0.06 U	U	2.6	0.014	21.5	10 U	98.9 U	U	0.0068	0.01 U	U	
9/18/2012 U	U	U	0.0035	0.056 U	U	0.15 U	U	83.9	0.0019 U	U	U	0.001 U	U	U	0.05	81.1 U	U	U	0.06 U	U	2.6	0.0167	20.9	9.8 U	98.3 U	U	0.0062	0.007 U	U	

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
THA6 WATER QUALITY - Anions

Date	T. Alk.	BOD ₅	COD	Cl	Cond	CN _{total} (mg/L)	F	Hard	NO ₃ -N	IO ₃ -N+NO ₂ -N	NO ₂ -N	NH ₃ -N	TKN	o-P	P _{total}	TDS	SAR	SO ₄	S ²⁻	SCN	pH s.u.
7/19/2012	340 U	U	U	14	1250 U	U	1.1	535	4.76	4.78	0.02 U	U	0.4	0.02	0.02	920	1.83	340 U	U	U	8.2
8/21/2012	341 U	U	U	14	1280 U	U	1.1	547	4.51	4.53	0.02 U	U	0.3	0.02	0.02	880	1.86	330 U	U	U	8.4
9/18/2012	363 U	U	U	14	1230 U	U	1.2	543	4.82	4.83	0.01 U	U	U	0.02	0.02	910	1.86	360 U	U	U	8.3

**EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-11 WATER QUALITY - Anions**

Date	T. Alk. mg/L	BOD ₅ mg/L	COD mg/L	Cl mg/L	Cond µmhos/cm	CN ^{total} (mg/L)	F (mg/L)	Hard mg/L	NO ₃ -N mg/L	NO ₃ -N+NO ₂ -N mg/L	NO ₂ -N mg/L	NH ₃ -N mg/L	TKN mg/L	o-P mg/L	Pr ^{total} mg/L	TDS mg/L	SAR	SO ₄ mg/L	S ²⁻ mg/L	SCN mg/L	pH s.u.
7/19/2012	662	10	20	7	1360 U		6.5	131 U	U	U		0.6	1	0.04	0.02	890	11.4	87	15.3	0.5	8.4
8/21/2012	667	10	20	16	1420 U		6.9	137 U	U	U		0.64	0.8	0.03	0.02	880	11.5	76	13	1.1	8.6
9/18/2012	679	19	30	13	1310 U		6.6	135 U	U	U		0.56	0.6	0.08	0.02	870	11.4	70	17	1.4	8.5

**EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-11 WATER QUALITY - Organics**

[illegible]

**EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-CC-ID1 WATER QUALITY - Metals**

Date		Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Hexavalent Cr(VI)	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Silica	Si	Ag	Na	Ti	U	V	Zn
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
7/17/2012	U	U	U	U	0.019 U	U	0.08 U	U	91.4 U	U	U	U	U	0.11 U	U	U	66	0.009 U	U	0.02 U	U	0.5 U	U	21.8	10.2 U	U	98 U	0.004 U	U	U	
8/23/2012	U	U	U	U	0.019 U	U	0.09 U	U	92.5 U	U	U	U	U	0.11 U	U	0.02	65.9	0.01 U	U	0.03 U	U	0.6 U	U	21.6	10.1 U	U	96.1 U	0.004 U	U	U	
9/20/2012	U	U	U	U	0.021 U	U	0.09 U	U	90.9 U	U	U	U	U	0.11 U	U	0.02	65.4	0.012 U	U	0.03 U	U	0.6 U	U	21.6	10.1 U	U	96.9 U	0.003 U	U	U	

**EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-CC-ID1 WATER QUALITY - Anions**

Date	T. Alk. mg/L	BOD ₅ mg/L	COD mg/L	Cl mg/L	Cond µmhos/cm	CN ⁻ acid (mg/L)	F (mg/L)	Hard mg/L	NO ₃ -N mg/L	NO ₂ -N+NO ₃ -N mg/L	NO ₂ -N mg/L	NH ₃ -N mg/L	TKN mg/L	o-P mg/L	P _{total} mg/L	TDS mg/L	SAR	SO ₄ mg/L	S ²⁻ mg/L	SCN mg/L	pH s.u.	
7/17/2012	397 U		20	10	1200 U			500 U	U	U		0.08	0.6	0.02	0.02	810	1.93		250	0.65 U		8.1
8/23/2012	395 U		10	10	1200 U		1.5	502 U	U	U		0.08	0.2	0.03	0.01	800	1.89		270	0.63 U		8.1
9/20/2012	414 U		20	10	1120 U		1.5	496 U	U	U		0.14 U		0.02 U		780	1.92		260	0.51 U		8.2

**EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-CC-ID1 WATER QUALITY - Organics**

[illegible]

EXXON COLONY SITE

REPORT GROUNDWATER SAMPLES

WW-CC-SD1 WATER QUALITY - Metals

Date	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Hexavalent Cr(VI) mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L	Hg mg/L	Mo mg/L	Ni mg/L	K mg/L	Se mg/L	Silica mg/L	Si mg/L	Ag mg/L	Na mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L
7/17/2012 U	U	U	U	0.024 U	U	0.07 U	U	77.4 U	U	U	U	U	0.03 U	U	U	63.8 U	U	U	0.05 U	U	3.3 U	U	23.5	11 U	U	95 U	U	U	U	U
8/23/2012 U	U	U	U	0.025 U	U	0.08 U	U	78.2 U	U	U	U	U	0.04 U	U	U	64.1 U	U	U	0.03 U	U	2.7	0.063	23.2	10.8 U	U	94.8 U	U	U	U	U
9/20/2012 U	U	U	U	0.028 U	U	0.08 U	U	83.9 U	U	U	U	U	0.06 U	U	U	65.6	0.007 U	U	0.02 U	U	2.2 U	U	23.6	11 U	U	95.7 U	U	U	U	U

EXXON COLONY SITE

REPORT GROUNDWATER SAMPLES

WW-CC-SD1 WATER QUALITY - Anions

Date	T. Alk. mg/L	BOD ₅ mg/L	COD mg/L	Cl mg/L	Cond µmhos/cm	CN _{red} (mg/L)	F (mg/L)	Hard mg/L	NO ₃ -N mg/L	NO ₃ -N+NO ₂ -N mg/L	NO ₂ -N mg/L	NH ₃ -N mg/L	TKN mg/L	O-P mg/L	P _{red} mg/L	TDS mg/L	SAR	SO ₄ mg/L	S ²⁻ mg/L	SCN mg/L	pH
7/17/2012	379	2 U		12	1130 U		1.9	455	0.03	0.03 U		0.12	0.6	0.01	0.02	710	1.96	220	1.33 U		8.2
8/23/2012	387 U		10	12	1130 U		1.9	459 U	U	U		0.09	0.2	0.02	0.02	740	1.95	240	1.31	0.1	8.2
9/20/2012	396	3	20	13	1100 U		1.8	479 U	U	U		0.06	0.1	0.02	0.02	770	1.92	230	4.1 U		8.2

EXXON COLONY SITE

REPORT GROUNDWATER SAMPLES

WW-CC-SD1 WATER QUALITY - Organics[illegible]

EXXON COLONY SITE

REPORT GROUNDWATER SAMPLES

WW-EF-01 WATER QUALITY - Metals

Date	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Hexavalent Cr(VI) mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L	Hg mg/L	Mo mg/L	Ni mg/L	K mg/L	Se mg/L	Silica mg/L	Si mg/L	Ag mg/L	Na mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L
7/23/2012 U	U	0.0003	0.023 U	0.023 U	0.25 U	0.25 U	184 U	U	U	U	0.0017 U	U	U	0.04	174 U	U	U	0.11 U	0.09	0.01	1.4	0.0597	17.5	8.2 U	142	0.0001	0.0181 U	U	0.0	
8/22/2012 U	0.0005	0.0004	0.022 U	0.022 U	0.23 U	0.23 U	172 U	U	U	U	0.0015 U	U	U	0.03	161 U	U	U	0.0712	0.09	0.01	1.3	0.0712	17.8	8.3 U	138	0.0001	0.0142 U	U	0.0	
9/19/2012	0.04 U	0.0004	0.024 U	0.024 U	0.24 U	0.24 U	173 U	U	U	U	0.0018 U	U	U	0.04	158 U	U	U	0.09 U			1.3	0.0585	18.4	8.6 U	138	0.0001	0.0148 U		0.0	

EXXON COLONY SITE

REPORT GROUNDWATER SAMPLES

WW-EF-01 WATER QUALITY - Anions

Date	T. Alk. mg/L	BOD ₅ mg/L	COD mg/L	Cl mg/L	Cond µmhos/cm	CN _{red} (mg/L)	F (mg/L)	Hard mg/L	NO ₃ -N mg/L	NO ₃ -N+NO ₂ ⁻ mg/L	NO ₂ -N mg/L	NH ₃ -N mg/L	TKN mg/L	O-P mg/L	P _{total} mg/L	TDS mg/L	SAR	SO ₄ mg/L	S ²⁻ mg/L	SCN mg/L	pH
7/23/2012	432 U		30	14	2090 U		2.1	1180	17	17 U	U		0.5 U		0.02	1740	1.82	830 U	U		8.1
8/22/2012	445 U		30	14	2100 U		2.2	1090	15.3	15.3 U	U		0.6 U		0.01	1710	1.84	810 U		0.2	8.1
9/19/2012	474	2	20	13	1930 U		2.1	1080	3.53	6.03	2.5 U		0.2	0.01 U		1620	1.85	760 U	U		8.1

**EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-01 WATER QUALITY - Organics**

[illegible]

**EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-AW1 WATER QUALITY - Meta**

Date			Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Hexavalent Cr(VI) mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L	Hg mg/L	Mo mg/L	Ni mg/L	K mg/L	Se mg/L	Silica mg/L	Si mg/L	Ag mg/L	Na mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L		
7/23/2012	U			0.0007	0.003	0.053	U	0.19		112	0.0013	U		0.0023	U		0.03	98.1	U		0.08	U		2.6	0.0304	22	10.3	U		96.3	U	0.0096	0.008	U

**EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-AW1 WATER QUALITY - Anions**

Date	T. Alk. mg/L	BOD ₅ mg/L	COD mg/L	Cl mg/L	Cond µmhos/cm	CN _{total} (mg/L)	F (mg/L)	Hard mg/L	NO ₃ -N mg/L	NO ₂ -N+NO ₃ -N mg/L	NO ₂ -N mg/L	NH ₄ -N mg/L	TKN mg/L	o-P mg/L	P _{total} mg/L	TDS mg/L	SAR	SO ₄ mg/L	S ²⁻ mg/L	SCN mg/L	pH s.u.
7/23/2012	333 U		10	9	1380 U		1.1	683	7.22	7.22 U	U	U	0.5 U		0.03	1050	1.62	450 U	U		8.3

**EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-AW1 WATER QUALITY - Organics**

[illegible]

**EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-V2 WATER QUALITY - Metals**

Date	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Hexavalent Cr(VI) mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L	Hg mg/L	Mo mg/L	Ni mg/L	K mg/L	Se mg/L	Silica mg/L	Si mg/L	Ag mg/L	Na mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L
7/18/2012 U	U		0.0067	0.016 U		0.08 U		86.6 U	U	U	U	U	0.59 U	U		69.5	0.007 U		0.04 U	U		24	11.2 U	98.5 U	0.0045 U	U				
8/20/2012 U	U		0.0071	0.016 U		0.08 U		82.7 U	U	U	U	U	0.58 U	U		66.6	0.008 U		0.04 U	0.4	0.0001	22.7	10.6 U	96.7 U	0.005 U	U				
9/17/2012 U	U		0.0071	0.019 U		0.09 U		86.6 U		0.005 U	U	U	0.6 U	U		68.5	0.011 U		0.05 U	0.3	0.0001	23.1	10.8 U	97.7 U	0.0047 U	U				

**EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-V2 WATER QUALITY - Anions**

Date	T. Alk. mg/L	BOD ₅ mg/L	COD mg/L	Cl mg/L	Cond µmhos/cm	CH ₃ COOH (mg/L)	F (mg/L)	Hard mg/L	NO ₃ -N mg/L	NO ₃ -N+NO ₂ -N mg/L	NO ₂ -N mg/L	NH ₃ -N mg/L	TKN mg/L	o-P mg/L	P _{total} mg/L	TDS mg/L	SAR	SO ₄ mg/L	S ²⁻ mg/L	SCN mg/L	pH
7/18/2012	360 U		20	12	1190 U		1.8	502 U	U	U		0.13	0.4	0.01 U		810	1.94	320	0.07 U		8.1
8/20/2012	365 U	U		11	1200 U		1.8	480 U	U	U		0.13	0.4	0.02 U		800	1.94	290	0.02 U		8.3
9/17/2012	360 U	U		12	1120 U		1.8	498 U	U	U		0.14	0.2	0.02	0.03	790	1.93	290	0.04 U		8.2

**EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-V2 WATER QUALITY - Organics**

[illegible]

**EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-V3A WATER QUALITY - Metals**

[illegible]

**EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-V3A WATER QUALITY - Anions**

Date	T. Alk. mg/L	BOD ₅ mg/L	COD mg/L	Cl mg/L	Cond µmhos/cm	CH ₃ COOH (mg/L)	F (mg/L)	Hard mg/L	NO ₃ -N mg/L	NO ₃ -N+NO ₂ -N mg/L	NO ₂ -N mg/L	NH ₃ -N mg/L	TKN mg/L	o-P mg/L	P _{total} mg/L	TDS mg/L	SAR	SO ₄ mg/L	S ²⁻ mg/L	SCN mg/L	pH s.u.
7/18/2012	375 U		10	11	1140 U		2	469 U		0.16	0.15	0.13	0.3	0.01	0.03	780	1.95	260	0.06 U		8
8/20/2012	377 U	U		11	1170 U		1.9	466 U	U			0.17	0.4	0.02	0.01	770	1.93	260 U			8.3
9/17/2012	381 U	U		11	1100 U		2	489	0.02	0.03	0.01	0.15	0.2	0.02	0.02	770	1.92	280 U	U		8.2

**EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-V3A WATER QUALITY - Organics**

[illegible]

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-V4 WATER QUALITY - Metals

Date	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Hexavalent Cr(VI) mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L	Hg mg/L	Mo mg/L	Ni mg/L	K mg/L	Se mg/L	Silica mg/L	Si mg/L	Ag mg/L	Na mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L
7/18/2012 U	U	U	0.0023	0.02 U	U	0.07 U	U	77.4 U	U	U	U	U	U	U	U	64.1	0.014 U	U	0.05 U	U	1.3	0.0024	21.3	10 U	U	108 U	U	0.003 U	U	
8/20/2012 U	U	U	0.0031	0.02 U	U	0.08 U	U	74.9 U	U	U	U	U	0.07 U	U	U	62.2	0.02 U	U	0.04 U	U	1.7	0.0017	20.8	9.7 U	U	104 U	U	0.0034 U	U	
9/17/2012 U	U	U	0.002	0.024 U	U	0.08 U	U	78.7 U	U	0.006 U	U	U	0.11 U	U	U	64.7	0.031 U	U	0.05	0.01	1.5	0.0008	21.3	10 U	U	105 U	U	0.0034 U	U	

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-V4 WATER QUALITY - Anions

Date	T. Alk. mg/L	BOD ₅ mg/L	COD mg/L	Cl mg/L	Cond µmhos/cm	CH ₃ CO ₂ ⁻ (mg/L)	F (mg/L)	Hard mg/L	NO ₃ -N mg/L	NO ₃ -N+NO ₂ -N mg/L	NO ₂ -N mg/L	NH ₃ -N mg/L	TKN mg/L	o-P mg/L	P _{tot} mg/L	TDS mg/L	SAR	SO ₄ mg/L	S ²⁻ mg/L	SCN mg/L	pH s.u.
7/18/2012	368 U	U	20	13	1170 U	U	2	457	0.11	0.11 U	U	U	0.2	0.01	0.02	770	2.22	260 U	U	U	8.2
8/20/2012	368	2 U	U	12	1180 U	U	1.9	443	0.05	0.05 U	U	U	0.4	0.01	0.03	780	2.18	260 U	U	U	8.3
9/17/2012	370	12	10	12	1100 U	U	1.9	463	0.09	0.09 U	U	0.05	0.1	0.02	0.05	770	2.15	270 U	U	U	8.2

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-V4 WATER QUALITY - Organics

Date	Benzene µg/L	Et-Benzene µg/L	m/p xylene µg/L	o xylene µg/L	Toluene µg/L	BTEX µg/L	TPH C10-C28 µg/L	2-Methylnaphthalene µg/L	Acenaphthene µg/L	Acenaphthylene µg/L	Anthracene µg/L	Benzo(a)anthracene µg/L	Benzo(a)pyrene µg/L	Benzo(b)fluoranthene µg/L	Benzo(g,h,i)perylene µg/L	Benzo(k)fluoranthene µg/L	Chrysene µg/L	Dibenzo(a,h)anthracen µg/L	Fluoranthene µg/L	Fluorene µg/L	Indeno(1,2,3-cd)pyrene µg/L	Naphthalene µg/L	Phenanthrene µg/L	Pyrene µg/L	O&G µg/L	Phenol mg/L
7/18/2012 U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.003
8/20/2012 U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.011
9/17/2012 U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.012

EXXON COLONY SITE
REPORT SURFACE-WATER SAMPLES
SW-EF-01 WATER QUALITY - Metals (Part I)

Date	Al mg/L	Al(Tot)R mg/L	Sb mg/L	Sr(Tot)R mg/L	As mg/L	As(Tot)R mg/L	Ba mg/L	Ba(Tot)R mg/L	Be mg/L	Be(Tot)R mg/L	B mg/L	B(Tot)R mg/L	Cd mg/L	Cd(Tot)R mg/L	Ca mg/L	Ca(Tot)R mg/L	Cr mg/L	Cr(Tot)R mg/L	Hexavalent Cr(VI) mg/L	Co mg/L	Co(Tot)R mg/L	Cu mg/L	Cu(Tot)R mg/L	Fe mg/L	Fe(Tot) mg/L	Fe(Tot)R mg/L	Pb mg/L	Pb(Tot)R mg/L	Li mg/L	Li(Tot)R mg/L
7/23/2012	0.03 U	U	U	U	0.0043	0.0048	0.075	0.075 U	U	U	0.07	0.08 U	U	U	44.8	46.1 U	U	U	U	U	U	0.0014	0.0012 U	U	U	0.07 U	U	U	U	
8/22/2012	U	U	U	U	0.0038	0.0033	0.069	0.07 U	U	U	0.07	0.08 U	U	U	42.2	42.9 U	U	U	U	U	U	0.0006 U	U	U	U	U	U	U	U	
9/19/2012	U	U	U	U	0.0034	0.004	0.072	0.075 U	U	U	0.06	0.06 U	U	U	45.1	44.5 U	U	U	U	U	U	U	U	U	U	U	U	U	U	

EXXON COLONY SITE
REPORT SURFACE-WATER SAMPLES
SW-EF-01 WATER QUALITY - Metals (Part II)

Date	Mg mg/L	Mg(Tot) mg/L	Mg(Tot)R mg/L	Mn mg/L	Mn(Tot) mg/L	Mn(Tot)R mg/L	Hg mg/L	Hg(tot)R mg/L	Mo mg/L	Mo(Tot)R mg/L	Ni mg/L	Ni(Tot) R mg/L	K mg/L	K(Tot)R mg/L	Se mg/L	Se(Tot) mg/L	Silica mg/L	Si mg/L	Ag mg/L	Ag(Tot)R mg/L	Na mg/L	Na(Tot)R mg/L	Ti mg/L	Ti(Tot)R mg/L	U mg/L	U(Tot)R mg/L	Zn mg/L	V mg/L	Zn(Tot)R mg/L
7/23/2012	23.7	23.9	24 U	U	U	U	U	U	U	0.01 U	U	U	0.9	0.9	0.0004	0.0003	18.7	8.7 U	U	U	42.5	42.9 U	U	U	0.0017	0.0016 U	U	0.009 U	
8/22/2012	25.1	24	25.5 U	U	U	U	U	U	U	U	U	U	0.8	0.9	0.0003	0.0003	16.9	7.9 U	U	U	46.1	44.7 U	U	U	0.0016	0.0017 U	U	0.008 U	
9/19/2012	26.2	27.2	25.9 U	U	U	U	U	U	0.02	0.01 U	U	U	0.9	0.8	0.0004	0.0006	16.1	7.5 U	U	U	47.6	47.6 U	U	U	0.0018	0.0017 U	U	U	

**EXXON COLONY SITE
REPORT SURFACE-WATER SAMPLES
SW-EF-01 WATER QUALITY - Anions**

Date	T. Alk. mg/L	BOD ₅ mg/L	COD mg/L	Cl mg/L	Cond µmhos/cm	CN ³⁻⁴ mg/L	F mg/L	Hard mg/L	NO ₃ -N mg/L	NO ₃ -N+NO ₂ ⁻ mg/L	NO ₂ -N mg/L	NH ₄ ⁺ -N mg/L	TKN mg/L	o-P mg/L	P _{total} mg/L	TDS mg/L	SAR mg/L	SO ₄ mg/L	S ²⁻ mg/L	SCN mg/L	Turbidity ntu	pH s.u.
7/23/2012	238 U		30	3	518 U		0.3	209 U	U	U	U		0.3 U		0.04	320	1.29	45 U	U		0.5	8.7
8/22/2012	237 U		20	3	546 U		0.4	209 U	U	U	U		0.3	0.01	0.02	340	1.41	51 U	U		2.2	8.6
9/19/2012	245	2	20	3	539 U		0.4	220	0.69	0.73	0.04 U	U		0.02 U		340	1.41	52 U	U		0.3	8.5

EXXON COLONY SITE
REPORT SURFACE-WATER SAMPLES
SW-EF-01 WATER QUALITY - Organics

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**EXXON COLONY SITE
REPORT SURFACE-WATER SAMPLES
SW-MD-1 WATER QUALITY - Metals (Part I)**

Date	Al	Al(Tot)R	Sb	Sb(Tot)R	As	As(Tot)R	Ba	Ba(Tot)R	Be	Be(Tot)R	B	B(Tot)R	Cd	Cd(Tot)R	Ca	Ca(Tot)R	Cr	Cr(Tot)R	Hexavalent Cr(VI)	Co	Co(Tot)R	Cu	Cu(Tot)R	Fe	Fe(Tot)	Fe(Tot)R	Pb	Pb(Tot)R	Li	Li(Tot)R
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
7/17/2012 U	U	0.0012	0.0011	0.0062	0.0056	0.02	0.023 U	U	U	0.05	0.06 U	U	U	57.3	58.5 U	U	U	U	U	U	U	0.0005	0.0007 U	U	U	U	U	U	U	U
8/22/2012 U	U	0.0012	0.0011	0.0062	0.0052	0.02	0.021 U	U	U	0.07	0.06 U	U	U	58	60.5 U	U	U	U	U	U	U	U	0.0007 U	0.0007 U	0.04	0.02 U	U	U	U	U
9/19/2012 U	U	0.0011	0.0012	0.0062	0.0057	0.022	0.024 U	U	U	0.06	0.06 U	U	U	63.9	63.5 U	U	U	U	U	U	U	0.0007	0.0005 U	U	U	U	U	U	U	U

**EXXON COLONY SITE
REPORT SURFACE-WATER SAMPLES
SW-MD-1 WATER QUALITY - Metals (Part II)**

Date	Mg mg/L	Mg(Tot) mg/L	Mg(Tot)/R mg/L	Mn mg/L	Mn(Tot) mg/L	Mn(Tot)/R mg/L	Hg mg/L	Hg(tot)/R mg/L	Mo mg/L	Mo(Tot)/R mg/L	Ni mg/L	Ni(Tot)/R mg/L	K mg/L	K(Tot)/R mg/L	Se mg/L	Se(Tot) mg/L	Silica mg/L	Si mg/L	Ag mg/L	Ag(Tot)/R mg/L	Na mg/L	Na(Tot)/R mg/L	Tl mg/L	Tl(Tot)/R mg/L	U mg/L	U(Tot)/R mg/L	Zn mg/L	V mg/L	Zn(Tot)/R mg/L
7/17/2012	55.5	57.9	56.8 U	U	U	U	U	U	0.02	0.02 U	U	U	0.3	0.4	0.0019	0.0015	24.1	11.3 U	U	76.5	78.9 U	U	U	0.0039	0.0043 U	U	U	U	U
8/22/2012	55.4	56.9	57.1 U	U	U	U	U	U	0.02 U	0.03	0.01 U	U	0.4	0.5	0.0019	0.0013	23.4	10.9 U	U	76.8	74.2 U	U	U	0.0038	0.004 U	U	U	U	U
9/19/2012	55.9	56.7	55.6 U	U	U	U	U	U	0.02	0.03	0.01 U	U	0.4	0.4	0.0017	0.0016	23.9	11.2 U	U	75.9	77.3 U	U	U	0.004	0.0039 U	U	U	U	U

**EXXON COLONY SITE
REPORT SURFACE-WATER SAMPLES
SW-MD-1 WATER QUALITY - Anions**

Date	T. Alk. mg/L	BOD ₅ mg/L	COD mg/L	Cl mg/L	Cond µmhos/cm	CN ^{1-nd} mg/L	F mg/L	Hard mg/L	NO ₃ -N mg/L	NO ₃ -N+NO ₂ -N mg/L	NO ₂ -N mg/L	NH ₃ -N mg/L	TKN mg/L	o-P mg/L	P ^{1-nd} mg/L	TDS mg/L	SAR mg/L	SO ₄ mg/L	S ²⁻ mg/L	SCN mg/L	Turbidity ntu	pH s.u.
7/11/2012	306 U	U		10	927 U		0.5	371	0.06	0.06 U	U		0.3	0.01	0.02	600	1.75	188 U	U		0.2	8.5
8/22/2012	306 U		20	10	929 U		0.5	373	0.07	0.07 U	U		0.2 U		0.01	600	1.75	188 U	U		0.5	8.4
9/19/2012	323	2 U		10	897 U		0.5	389	0.05	0.05 U	U	U		0.02 U		630	1.69	189 U	U		0.2	8.4

**EXXON COLONY SITE
REPORT SURFACE-WATER SAMPLES
SW-MD-1 WATER QUALITY - Organics**

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