

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

ExxonMobil

July 30, 2012

RECEIVED

JUL 31 2012
GRAND JUNCTION FIELD OFFICE
DIVISION OF
RECLAMATION MINING & SAFETY

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

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 2nd 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
MW12 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	Tl	U	V	Zn
4/24/2012	0.04 U		0.0048	0.04 U	0.04 U	0.1 U		65.4	0.0016 U		U	U	U	U	0.04	64.9 U	U	U	0.03 U	2.8	0.0077	20.6	9.6 U	84.4 U				0.014		U
5/23/2012	U	U	0.0045	0.04 U		0.1 U		67.7	0.0018 U		U	0.0006 U	U		0.04	66 U	U	U	0.04 U	2.6	0.0089	20.8	9.7 U	83 U				0.007		U
6/19/2012	U		0.0042	0.043 U		0.1 U		71.4	0.0015 U		U	0.0006 U	U		0.04	69.6 U	U	U	0.04 U	2.9	0.0082	21.1	9.9 U	86.9 U				0.01		U

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
MW12 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	P ^{total} mg/L	TDS mg/L	SAR	SO ₄ mg/L	S ²⁻ mg/L	SCN mg/L	pH s.u.
4/24/2012	317 U		U	11	1020 U		0.9	430	2.23	2.23 U	U	U	0.2	0.01	0.01	690	1.79	240 U		U	8.3
5/23/2012	325 U		10	12	1020 U		0.9	441	2.54	2.54 U	U	U	0.1	0.02	0.02	720	1.74	250 U		U	8.4
6/19/2012	330	2	10	12	1070 U		0.9	465	2.84	2.84 U	U	U	U	0.02	0.02	730	1.78	270 U		U	8.4

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
MW12 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
4/24/2012	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	0.004
5/23/2012	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	0.011
6/19/2012	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	0.003

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	Tl mg/L	U mg/L	V mg/L	Zn mg/L
4/23/2012	U		0.0031	0.051 U		0.13 U		79	0.0013 U		U	0.0008 U	U		0.05	76.7 U	U	U	0.04 U	2.6	0.0138	21.3	10 U	95.7 U				0.007		U
5/21/2012	U		0.0034	0.053 U		0.13 U		83.1	0.0016 U		U	0.0014	0.02 U		0.04	80.2 U	U	U	0.04 U	2.7	0.0146	22.2	10.4 U	95.8 U				U		U
6/19/2012	U		0.0004	0.0031	0.055 U	0.14 U		83.2	0.0016 U		U	0.0009	0.02 U		0.05	80.4 U	U	U	0.06 U	2.7	0.0138	21.9	10.2 U	96.7 U				0.008		U

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
THA6 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	P ^{total} mg/L	TDS mg/L	SAR	SO ₄ mg/L	S ²⁻ mg/L	SCN mg/L	pH s.u.
4/23/2012	349 U		U	13	1180 U		1.1	513	3.74	3.76	0.02 U	U	0.1	0.02	0.01	830	1.86	290 U		U	8.3
5/21/2012	355 U		10	14	1170 U		1.1	537	4.23	4.23 U	U	U	0.5	0.02	0.01	830	1.82	310 U		U	8.3
6/19/2012	349	2	10	14	1230 U		1.1	538	4.34	4.34 U	U	U	0.1	0.02	0.02	850	1.83	330 U		U	8.2

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
THA6 WATER QUALITY - Organics

Date	Benzene	Et-Benzene	m/p xylene	o xylene	Toluene	BTEX	TPH C10-C28	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracen	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	O&G	Phenol
4/23/2012 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	0.005
5/21/2012 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	0.01
6/19/2012 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	0.01

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WDRA 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	Tl	U	V	Zn
4/26/2012 U	0.001	0.0024	0.019 U	0.06 U	90.3 U	U	U	0.0015 U	0.001 U	U	U	0.0015 U	U	U	U	55.7 U	U	U	0.03 U	0.03 U	0.4	0.0034	22.2	10.4 U	72.4 U	U	U	U	U	
5/22/2012 U	0.0008	0.0022	0.019 U	0.05 U	92.2 U	U	U	0.001 U	U	U	U	0.001 U	U	U	U	56.9 U	U	U	0.03 U	0.03 U	0.4	0.0027	23.2	10.8 U	77.6 U	U	U	U	U	
6/20/2012 U	0.0006	0.002	0.021 U	0.06 U	93.1 U	U	U	0.0006 U	U	U	U	0.0006 U	U	U	U	57.8 U	U	U	0.03 U	0.03 U	0.4	0.0028	23.5	11 U	79.7 U	U	U	U	U	

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WDRA WATER QUALITY - Anions

Date	T. Alk.	BOD ₅	COD	Cl	Cond	CN ^{total}	F	Hard	NO ₃ -N	NO ₃ -N+NO ₂ -N	NO ₂ -N	NH ₃ -N	TKN	o-P	P ^{total}	TDS	SAR	SO ₄	S ²⁻	SCN	pH
4/26/2012	390 U	U	U	12	1040 U	(mg/L)	0.4	455	0.06	0.06 U	U	U	U	0.01 U	U	710	1.49	220 U	U	U	8.2
5/22/2012	388 U	U	10	12	1020 U		0.4	464	0.03	0.03 U	U	U	0.3	0.02 U	U	700	1.59	210 U	U	U	8.2
6/20/2012	410 U	U	10	11	1040 U		0.6	470	0.08	0.08 U	U	U	U	0.02	0.02	730	1.62	200 U	U	U	7.9

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WDRA WATER QUALITY - Organics

Date	Benzene	Et-Benzene	m/p xylene	o xylene	Toluene	BTEX	TPH C10-C28	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracen	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	O&G	Phenol
4/26/2012 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	0.006
5/22/2012 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	0.01
6/20/2012 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	0.01

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW11 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	Tl	U	V	Zn
4/23/2012	0.03 U	U	U	0.078 U	0.58 U	0.58 U	16.8 U	16.8 U	U	U	U	U	0.03 U	U	0.15	23	0.031 U	U	U	U	0.6	0.019	19.2	9 U	313 U	U	U	U	0.03	
5/21/2012	U	U	U	0.08 U	0.56 U	0.56 U	16.9 U	U	U	U	U	U	0.03 U	U	0.14	23.1	0.021 U	U	U	U	0.8	0.015	19.8	9.3 U	307 U	U	U	U	U	
6/19/2012	U	U	U	0.083 U	0.56 U	0.56 U	16.8 U	U	U	U	U	U	0.02 U	U	0.15	22.8	0.028 U	U	U	U	0.7 U	U	19.5	8.1 U	296	0.003 U	U	U	U	

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-CC-SD1 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	
4/26/2012	0.03 U	U	U	0.026 U	0.026 U	0.08 U	U	81.8 U	U	U	U	U	0.19 U	U	0.02	62.9 U	U	U	0.03 U	U	5 U	0.025	23.7	
5/22/2012	U	U	U	0.027 U	U	0.07 U	U	81.2 U	U	U	U	U	0.04 U	U	0.02	65.3	0.005 U	U	0.05 U	U	5.9	0.025	24.3	
6/20/2012	U	U	U	0.026 U	U	0.08 U	U	78.8 U	U	U	U	U	0.04 U	U	U	64.3 U	U	U	0.02 U	U	3.1	0.003	23.9	

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 _{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 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.
4/26/2012	428	3	20	10	1150 U	U	1.9	463 U	U	U	U	0.08	0.4	0.01	0.02	780	1.91	230	0.89 U	U	8.2
5/22/2012	417 U	U	20	11	1100 U	U	2	471 U	U	U	U	0.14	0.5	0.01	0.01	750	2.01	230	0.9 U	U	8.3
6/20/2012	406 U	U	U	11	1080 U	U	2	461	0.02	0.11	0.09	0.14	0.2	0.01	0.01	760	1.98	230	1.24 U	U	8

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-CC-SD1 WATER QUALITY - Organics

Date	Benzene µg/L	Ei-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
4/26/2012	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
5/22/2012	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
6/20/2012	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

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	
4/23/2012	0.03 U	U	U	0.044 U	0.044 U	0.23 U	U	198 U	U	U	U	0.0016 U	U	U	0.04	179	0.095 U	U	0.08 U	U	1.4	0.0584	19.2	
5/21/2012	U	0.0006 U	U	0.033 U	U	0.23 U	U	205 U	U	U	U	0.0018 U	U	U	0.04	187	0.057 U	U	0.08 U	U	1.6	0.0575	19.3	
6/19/2012	U	U	U	0.028 U	U	0.22 U	U	190 U	U	U	U	0.0019 U	U	U	0.04	174	0.006 U	U	0.11 U	U	1.5	0.056	18.9	

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 _{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	P _{total} mg/L	TDS mg/L	SAR	SO ₄ mg/L	S ²⁻ mg/L	SCN mg/L	pH s.u.
4/23/2012	484	2	20	14	2230 U		2.2	1230	14.3	14.4	0.08 U		0.5	0.02 U		1860	1.82	890 U		U	8
5/21/2012	482 U		20	15	2170 U		2.2	1280	15.1	15.2	0.07 U		0.5 U	U		1850	1.8	890 U		U	8
6/19/2012	460	2	20	14	2110 U		2.3	1190	16.6	16.6 U	U		0.4	0.02 U		1790	1.75	850 U		U	8.1

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

Date	Benzene	EI-Benzene	m/p xylene	o xylene	Toluene	BTEX	TPH C10-C28	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracen	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	O&G	Phenol
4/23/2012 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	0.007
5/21/2012 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
6/19/2012 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	0.004

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-AW1 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	Tl mg/L	U mg/L	V mg/L	Zn mg/L
4/23/2012 U		0.001	0.0033	0.044 U		0.17 U		103	0.0014 U	U		0.0022 U	U		0.03	92 U	U		0.07 U			2.6	0.029	20.6	9.6 U	97.1 U		0.008		U
5/23/2012 U		0.0007	0.0034	0.046 U		0.16 U		107	0.0014 U	U		0.0018 U	U		0.03	94 U	U		0.08 U			2.3	0.0342	21.8	10.2 U	94.3 U		U		U
6/21/2012	0.05	0.0005	0.0034	0.054 U		0.16 U		103	0.0013 U	U		0.0036 U	U		0.03	89.7 U	U		0.07 U			2.5	0.034	20.6	9.6 U	80.1 U		0.01		U

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

Date	T. Alk.	BOD ₅	COD	Cl	Cond	CN ^{total}	F	Hard	NO ₃ -N	NO ₃ -N+NO ₂ ⁻	NO ₂ -N	NH ₄ -N	TKN	o-P	P ^{total}	TDS	SAR	SO ₄	S ²⁻	SCN	pH
4/23/2012	351	2	70	10	1350 U	(mg/L)	1.2	636	5.04	5.04 U	mg/L	U	0.8	0.02	0.3	1020	1.7	420 U	U	mg/L	8.4
5/23/2012	335 U	30	10	1340 U	1.3	654	6.14	6.14 U	6.14	6.14 U	mg/L	U	0.6	0.02	0.07	1040	1.62	420 U	U	mg/L	8.4
6/21/2012	341 U	U	9	1350 U	1.5	626	6.66	6.66 U	6.66	6.66 U	mg/L	U	0.5	0.02	0.04	1030	1.59	470 U	U	mg/L	8.3

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

Date	Benzene	EI-Benzene	m/p xylene	o xylene	Toluene	BTEX	TPH C10-C28	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracen	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	O&G	Phenol
4/23/2012 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	0.005
5/23/2012 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	0.016
6/21/2012 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	0.006

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	Tl mg/L	U mg/L	V mg/L	Zn mg/L
5/24/2012 U	U	U	0.0079	0.015 U	0.08 U	0.08 U	84	0.0005 U	U	U	U	U	0.62 U	U	67.9	0.008 U	0.008 U	0.04 U	0.04 U	0.5	0.0001	23.4	10.9 U	98.2 U	U	U	U	U	U	U
6/18/2012 U	U	U	0.0064	0.018 U	0.08 U	0.08 U	86.3 U	U	U	U	U	U	0.61 U	U	68.5	0.01 U	0.01 U	0.04 U	0.04 U	0.5 U	U	23.6	11 U	98 U	U	U	U	U	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	CN _{total} (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 s.u.
5/24/2012	376 U	376 U	U	12	1440 U	1.9	489 U	489 U	U	U	U	0.13	0.3	0.05 U	0.01 U	800	1.96	300	0.06 U		8.1
6/18/2012	376 U	376 U	U	12	1160 U	1.8	497 U	U	U	U	U	0.15	0.2	0.01 U		800	1.93	280	0.05 U		8

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-V2 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
5/24/2012 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
6/18/2012 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	0.012

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-V3A 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	Tl mg/L	U mg/L	V mg/L	Zn mg/L
5/24/2012	U	U	0.002	0.021 U	0.021 U	0.08 U	0.08 U	81.8 U	U	U	U	U	0.43 U	U	U	66.1	0.006 U	U	0.02 U	0.02 U	0.5	0.0002	23.2	10.8 U	U	98.2 U	U	U	U	
6/18/2012	U	U	0.0005	0.023 U	U	0.08 U	U	83.8 U	U	U	U	U	0.1 U	U	U	67.5	0.006 U	U	0.02 U	U	0.5	0.0002	23.5	11 U	U	97.8 U	U	U	U	

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	CN _{total} (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 s.u.
5/24/2012	386 U	386 U	10	12	1120 U	1.9	476 U	476 U	U	U	U	0.13	0.3	0.06 U	0.01 U	790	1.98	270	0.08 U		8.1
6/18/2012	401	2 U	12	12	1150 U	1.9	487 U	U	U	U	U	0.24	0.2	0.01 U		790	1.95	280	0.11 U		8

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-V3A 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
5/24/2012 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	0.004
6/18/2012 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	0.006

EXXON COLONY SITE
REPORT GROUNDWATER SAMPLES
WW-EF-V4 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	Tl	U	V	Zn
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