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**MFG, Inc.**  
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October 3, 2006

Gary Janosko, Chief,  
Fuel Cycle Facilities Branch  
Division of Fuel Cycle Safety and Safeguards  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington DC 20555

RE: Groundwater Monitoring Results; First Half 2006  
Docket No. 40-8102  
License No. SUA-1139  
Highland Reclamation Project

Dear Mr. Janosko:

Pursuant to the semiannual reporting requirements of Materials License No. SUA-1139, Conditions 22 and 33, attached are the semiannual environmental monitoring results covering the Highland Reclamation Project for the period 1/1/2006 through 6/30/2006. This report was prepared on behalf of ExxonMobil by MFG, Inc.

A summary of the groundwater elevation data is found in Attachment 1. Summaries of the water quality data are found in Attachment 2. Monitoring locations are shown on the map in Figure 1.

Figure 1 also shows the location of the additional wells (MFG 1-3 and BBL 1-4) that were installed recently. We are currently collecting data from these wells and will submit the data along with an analysis of the data in 2007.

Sampling of environmental media other than groundwater is not required by the Materials License and is not performed.

Static groundwater levels (Attachment 1) show no significant changes in groundwater elevations. Groundwater quality data (Attachment 2) show no significant changes in concentrations of monitored parameters.

Monitored parameters in the Tailings Dam Sandstone (TDSS) groundwater compliance wells were within groundwater protection standards during the first half of 2006. The groundwater protection standards are defined by Condition 33 of the Materials License which was recently modified via license amendment 58.

If there are any questions or comments regarding the groundwater monitoring results, please contact me at (970) 223-9600 or Dan Burnham with ExxonMobil at (703) 846-3272.

Mr. Gary Janosko, Fuel Cycle Licensing Branch  
October 3, 2006  
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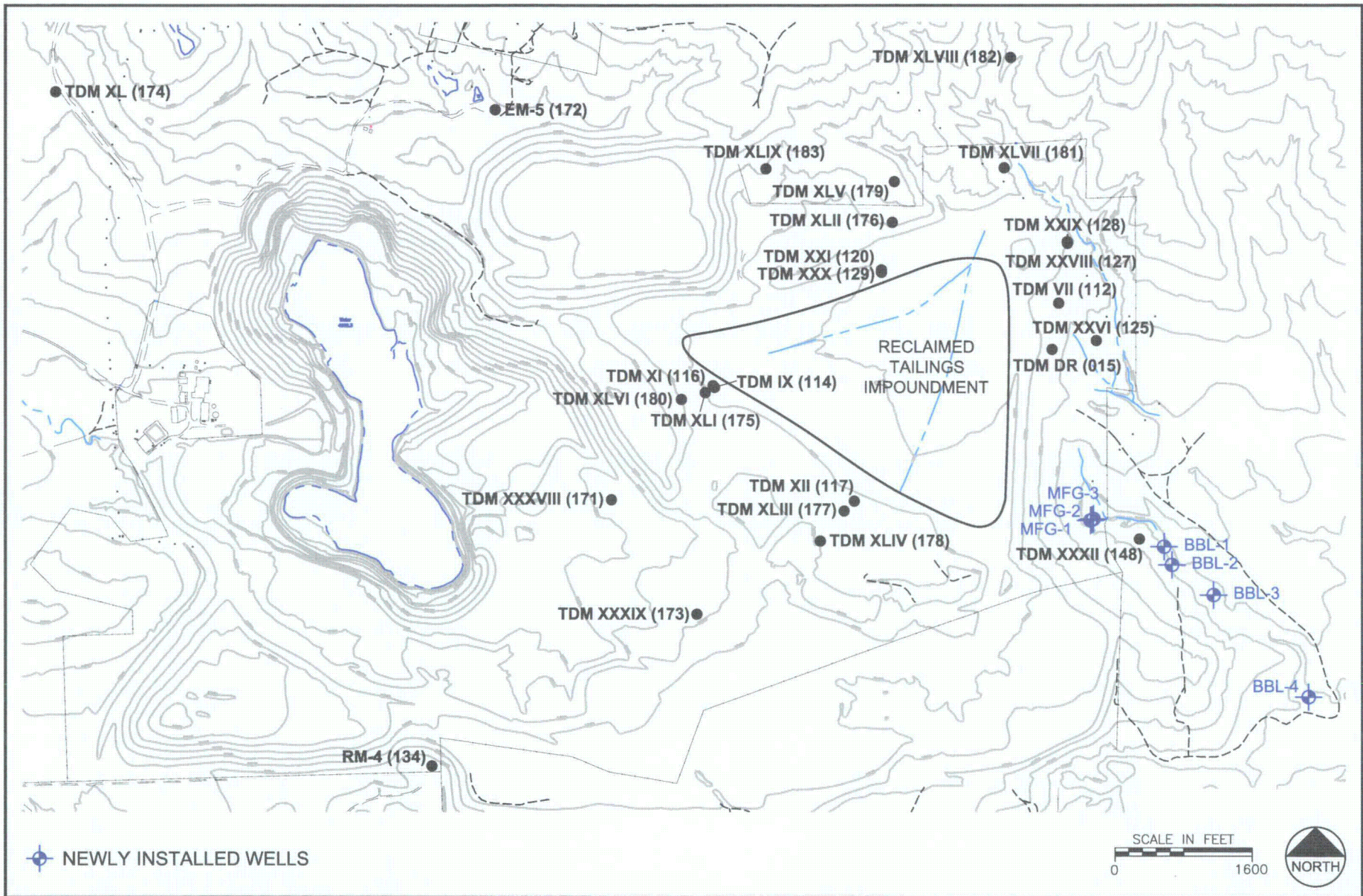
Sincerely,



Clint Strachan

Senior Geotechnical Engineer

cc: Dan Burnham – ExxonMobil  
Rebecca Lindeman – BBL, Inc.



MFG, Inc.  
consulting scientists and engineers

FIGURE 1  
MONITORING WELL LOCATIONS

Date:	SEPTEMBER 2006
Project:	100548
File:	NRC-SAMPLES-BBL

Attachment 1  
Water Level Data - 1st Half of 2006

Well Number	Well Name	Jan-06	Feb-06	Mar-06	Jun-06
15	TDM DR			Dry	Dry
112	TDM VII	5120.92			5123.40
114	TDM IX	5102.22			5101.79
116	TDM XI		5057.63		5057.09
117	TDM XII			5119.80	5119.51
120	TDM XXI		5115.02		5114.82
125	TDM XXVI		5122.00		5121.73
127	TDM XXVIII			Dry	Dry
128	TDM XXIX		5069.45		5069.62
129	TDM XXX		5062.57		5062.62
134	RM-4		5124.26		5124.24
148	TDM XXXII			Dry	Dry
171	TDM XXXVIII		5047.70		5048.40
172	EM-5		5080.74		5083.29
173	TDM XXXIX		5064.63		5064.89
174	TDM XL			5085.28	5084.39
175	TDM XLI			5099.11	5099.13
176	TDM XLII		5115.34		5115.07
177	TDM XLIII			Dry	Dry
178	TDM XLIV	5112.74			5112.59
179	TDM XLV		5114.79		5114.25
180	TDM XLVI			Dry	Dry
181	TDM XLVII		5118.20		5117.50
182	TDM XLVIII		5114.93		5114.24
183	TDM XLIX		5106.50		5106.07

\* Static water levels shown as elevations in feet (msl)

Attachment 2  
Water Quality Data - 1st Half 2006

TDSS Compliance Monitor Well		As mg/L	Cd mg/L	Cl mg/L	Cr mg/L	Grs Alpha pCi/L	Na mg/L	Ni mg/L	NO2 + NO3 mg/L	Pb mg/L	pH-Field strnd	Ra226 pCi/L	Ra226+228 pCi/L	Ra228 pCi/L	Se mg/L	SO4 mg/L	TDS mg/L	Th230 pCi/L	U-Nat mg/L	
125	TDM XXVI																			
	2/3/2006	<0.002	<0.001	19	0.0028	1.7+/-1.1	102	0.00383	<0.1	<0.002	7.63	1.0+/-0.4	<2.0+/-0.4	<1.0	0.00215	438	977	<0.2	0.0185	
	6/14/2006			21.8			93.2		0.17		7.82					496	1,010			
	<b>GPS</b>	<b>0.05</b>	<b>0.01</b>		<b>0.1</b>	<b>15</b>		<b>0.1</b>		<b>0.05</b>			<b>5</b>		<b>0.05</b>			<b>0.55</b>	<b>0.089</b>	
175	TDN XLI																			
	3/1/2006	<0.001	<0.0005	250	<0.001	2.5+/-1.0	308	0.806	<0.1	<0.001	6.68	1.3+/-0.6	8.6+/-1.7	7.3+/-1.1	<0.001	3,590	5,150	0.5+/-0.3	0.0172	
	6/19/2006			324			314		<0.04		6.78					3,630	5,260			
	<b>GPS</b>	<b>0.05</b>	<b>0.01</b>		<b>0.1</b>	<b>15</b>		<b>1.8</b>		<b>0.05</b>			<b>25</b>		<b>0.05</b>			<b>0.55</b>	<b>0.03</b>	
176	TDMXLII																			
	2/14/2006	<0.001	<0.0005	258E	<0.001	1.7+/-0.9	234	0.00612	<0.1	<0.001	7.21	0.9+/-0.5	3.9+/-1.5	3.0+/-1.0	<0.001	2,290	3,940	<0.2	<0.0003	
	6/19/2006			245			245		<0.04		7.42					2,240	4,050			
	<b>GPS</b>	<b>0.05</b>	<b>0.01</b>		<b>0.1</b>	<b>15</b>		<b>0.1</b>		<b>0.05</b>			<b>5</b>		<b>0.05</b>			<b>0.55</b>	<b>0.03</b>	
177	TDM XLII																			
	3/14/2006				Dry															
	6/27/2006				Dry															
	<b>GPS</b>	<b>0.05</b>	<b>0.01</b>		<b>0.1</b>	<b>15</b>		<b>0.1</b>		<b>0.05</b>			<b>5</b>		<b>0.05</b>			<b>0.55</b>	<b>0.11</b>	

\*Groundwater Protection Standards License Condition 33, Amendment 58, Materials License SUA-1139

E (Laboratory Data Qualifier) The laboratory noted that the reported concentration is above the concentration of the highest point on the instrument calibration curve



Attachment 2  
Water Quality Data - 1st Half 2006

TDSS/Monitor	As mg/L	Cd mg/L	Cl mg/L	Cr mg/L	Grs Alpha pCi/L	Na mg/L	Ni mg/L	NO <sub>2</sub> + NO <sub>3</sub> mg/L	Pb mg/L	pH-Field std	Ra226 pCi/L	Ra226+228 pCi/L	Ra228 pCi/L	Se mg/L	SO <sub>4</sub> mg/L	TDS mg/L	Th230 pCi/L	U-Nat mg/L		
15	TDM DR 3/14/2006 6/27/2006																			
				Dry Dry																
112	TDM VII 1/30/2006 6/6/2006		0.0025	<0.001	140 143	<0.002	<1.0	265 226	0.0226	<0.1 <0.04	<0.002	7.21 7.35	<0.5	<1.5	<1.0	<0.002	2030 1,920	3370 3,340	<0.2	0.0462
114	TDM IX 1/31/2006 6/6/2006		<0.002	<0.001	250 283	<0.002	1.8+/-1.0	318 280	1.11	<0.1 <0.04	<0.002	6.27 5.84	1.0+/-0.4	4.6+/-1.3	3.6+/-0.9	<0.002	3660 3,610	262* 5,640	1.2+/-0.7	<0.0003
117	TDM XII 3/14/2006 6/27/2006																			
				Dry Dry																
120	TDM 2/3/2006 6/14/2006		XXI <0.002	<0.001	380 426	0.0023	<1.0	292 267	0.0153	<0.1 <0.04	<0.002	6.77 7.00	<0.5	<1.5	<1.0	0.00228	1,540 1,860	4,290 4,210	<0.2	0.0005
127	TDM XXVIII 3/14/2006 6/27/2006																			
				Dry Dry																
178	TDM 1/31/2006 6/21/2006		XLIV <0.002	<0.001	220 318	<0.002	1.1+/-0.8	273 257	0.182	346 1.5	<0.002	NA 7.40	<0.5	<1.5	<1.0	<0.002	2290 2,490	4100 4,280	<0.2	0.0018
179	TDM XLV 2/27/2006 6/21/2006		0.00162	<0.0005	140 197	<0.001	1.1+/-0.8	277 295	0.00571	<0.1 <0.04	<0.001	7.68 7.80	<0.5	<1.5	<1.0	<0.001	1,510 1,350	2,440 2,510	<0.2	<0.0003
181	TDM XLVII 2/14/2006 6/22/2006		<0.001	<0.0005	42 49.6	<0.001	1.0+/-0.8	226 208	0.00171	<0.1 <0.04	<0.001	7.61 7.88	<0.5	<1.5	<1.0	<0.001	679 658	1,220 1,270	<0.2	<0.0003
183	TDM XLIX 2/27/2006 6/21/2006		0.00198	<0.0005	110 125	<0.001	1.3+/-0.8	232 239	0.00391	<0.1 <0.04	<0.001	7.65 7.72	<0.5	<2.3+/-0.9	1.8+/-0.9	<0.001	1,070 1,000	1,790 1,920	<0.2	<0.0003

\* Sample result confirmed with laboratory but inconsistent with historical data