

0400891110E

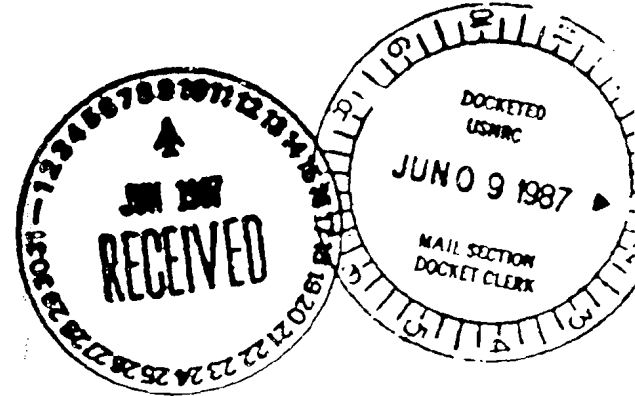
Mobil Coal Producing Inc.

40-8911

P.O. BOX 17772
DENVER, COLORADO 80217
RETURN ORIGINAL TO PDR, HQ.

June 2, 1987

Mr. Thomas T. Olsen
Project Manager
United States Nuclear Regulatory Commission
P.O. Box 25325
Denver, CO 80225



Dear Mr. Olsen:

In reference to our May 27 meeting, concerning the restoration stability program for Mobil's Crownpoint ISL Uranium Pilot facility, please find enclosed a copy of the water quality analysis for the well field. These analyses cover the period November 1986 through March 1987. Analytical results of the May samples are currently not available from Accu-Labs Research, Inc.

After reviewing these analyses you will note that Mobil has been checking Accu-Labs molybdenum results with Intermountain Laboratories. The check sampling began in January after noticing significant variations in the molybdenum values for each well over a one month period. Accu-Labs was advised of our doubling checking of results and implemented a more rigorous quality control program. Since the program was implemented, we have seen a very close correlation in molybdenum analyses between the laboratories.

If you have any questions concerning these analyses please contact me.

Very truly yours,

J.F. Cullen
J.F. Cullen

8708240360 870602
PDR ADOCK 04008911
C PDR

JFC/62/em

enclosure

cc: Kevin A. Lambert
State of New Mexico
Environmental Improvement Division
P.O. Box 968 - Runnels Bldg.
1190 St. Francis Drive
Santa Fe, New Mexico 87504-0968

APP. CONT. *Copies check*
CHECK NO. *82831*
AMOUNT FOR CASH *\$10.00*
TYPE OF REC. *Am*
DATE CHECK REC'D. *6/21/87*
RECEIVED BY *am*

DESIGNATED ORIGINAL

Certified By *Mary C. Hood*

87-762

CROWFOINT
STABILITY SHAPLING POLYBENZENE

WELL NO.	NOVEMBER 87		DECEMBER 86		JANUARY 87		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY	
	AC	IM	AC	IM	AC	IM	AC	IM	AC	IM	AC	IM	AC	IM	AC	IM	AC	IM
208	1.2		2.0				2.19	1.79	2.19	1.79	2.19	1.79						
209	3.2				1.3	1.05	.55	.98	1.0	.87								
210	.17				.25	.2	.17	.14	.22	.16								
211	2.3		3.9	2.88			3.9	4.05						2.66				
212	.37		.28	.21			.33	.27						.22				
213	1.1		1.7				2.0	2.11										
214	.91		1.2		1.2		.97	.87	.85	.63								
215	1.7		1.9	1.05			1.2	1.29										
216	7.7		4.1	3.13			4.2	3.24					2.87					
217	4.0		2.8	.83			3.0	3.35					.86					
218	.29						.24	.26										
219	3.3				1.3	1.50	1.3	1.40						.72				
220	.55		.019		1.2	1.25	1.1	1.08										
AVE	2.02		1.36		2.59	1.62	1.63	1.53	1.09	.82	N/A	1.46						

AC - ACCU-LABS

IM - INTERMOUNTAIN

STABILITY PERIOD
ANALYSIS OF MONITOR WELLS

8708240372 870602
PDR ADDCK 04008911
C PDR



Accu-Labs Research, Inc.
11485 W. 48th Avenue Wheat Ridge, Colorado 80033
(303) 423-2766

March 3, 1987
Page 1 of 1

Mr. Joe Sciba
Mobil Oil Corporation
P.O. Drawer F
Crowpoint, NM 87313

RE: 8752-23657-8
Date Samples Rec'd 2-16-87


REPORT OF ANALYSIS

ALR Designation	Sponsor Designation	Gross Alpha, dissolved, ± counting error*, pCi/L	Gross Beta, dissolved, ± counting error*, pCi/L
8752-23657-8-1	202 2-11-87	2 ± 5	-2 ± 3
-2	207 2-11-87	9 ± 10	-1 ± 4
-3	221 2-11-87	12 ± 7	4 ± 3
-4	222 2-11-87	0 ± 5	-2 ± 5
-5	223 2-11-87	0 ± 4	0 ± 3
-6	224 2-11-87	5 ± 5	2 ± 3
-7	225 2-11-87	21 ± 7	17 ± 3
-8	276B 2-11-87	18 ± 9	3 ± 3

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ .
These samples are scheduled to be disposed of 45 days after the date of this report.

BS/dh

dh


Bud Summers
Radiochemistry
Supervisor

Mobil Oil Corporation

ENERGY MINERALS DIVISION

DATE 2-18

REPORT NO. 2

CROWNPOINT, SECTION 9, PILOT TEST

BIWEEKLY DATA REPORT

WELL NO.	pH	Ec (μ mhos)	SULFATE (mg/l)	URANIUM (mg/l)	MOLYBDENUM (mg/l)	SODIUM (mg/l)	GROSS A (pci/l)	GROSS B (pci/l)
9U-202	<u>8.8</u>	<u>322</u>	<u>9</u>	<u><0.1</u>	<u>.008</u>	<u>130</u>	<u>2\pm5</u>	<u>-2\pm3</u>
9U-207	<u>8.7</u>	<u>710</u>	<u>240</u>	<u><0.1</u>	<u><0.005</u>	<u>190</u>	<u>9\pm10</u>	<u>-1\pm4</u>
9U-221	<u>8.6</u>	<u>351</u>	<u>30</u>	<u><0.1</u>	<u>.008</u>	<u>130</u>	<u>12\pm7</u>	<u>4\pm3</u>
9U-222	<u>8.7</u>	<u>378</u>	<u>28</u>	<u><0.1</u>	<u>.008</u>	<u>130</u>	<u>0\pm5</u>	<u>-2\pm5</u>
9U-223	<u>8.7</u>	<u>312</u>	<u>25</u>	<u><0.1</u>	<u>.009</u>	<u>120</u>	<u>0\pm4</u>	<u>0\pm3</u>
9U-224	<u>8.8</u>	<u>311</u>	<u>29</u>	<u><0.1</u>	<u>.007</u>	<u>120</u>	<u>5\pm5</u>	<u>2\pm3</u>
9U-225	<u>8.9</u>	<u>300</u>	<u>18</u>	<u><0.1</u>	<u><0.005</u>	<u>110</u>	<u>21\pm7</u>	<u>17\pm3</u>
9U-276B	<u>8.6</u>	<u>620</u>	<u>22</u>	<u><0.1</u>	<u><0.005</u>	<u>170</u>	<u>18\pm9</u>	<u>3\pm3</u>
9U-279	_____	_____	_____	_____	_____	_____	_____	_____

COMMENTS: _____

Accu-Labs Research, Inc.

11485 W. 48th Avenue Wheat Ridge, Colorado 80033
(303) 423-2766

December 31, 1986
Page 1 of 1

Mr. Joe Sciba
Mobil Oil Corporation
P.O. Drawer F
Crowpoint, NM 87313

RE: 8752-23310-8
Date Samples Rec'd 12-15-86
Assignment 8301

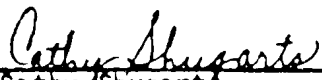
REPORT OF ANALYSIS

ALR Designation	Sponsor Designation	Molybdenum, dissolved, mg/L	Sodium, dissolved, mg/L
8752-23310-8-1	202 12-10-86	<0.005	110
-2	207 12-10-86	<0.005	180
-3	221 12-10-86	0.006	110
-4	222 12-10-86	0.005	120
-5	223 12-10-86	0.009	110
-6	224 12-10-86	0.005	110
-7	225 12-10-86	0.005	110
-8	276 12-10-86	<0.005	150

These samples are scheduled to be disposed of 30 days after the date of this report.

CS/dh




Cathy Shugarts
Supervisor
Water Laboratory



Accu-Labs Research, Inc.
11485 W. 48th Avenue Wheat Ridge, Colorado 80033
(303) 423-2766

January 12, 1987
Page 1 of 1


Mr. Joe Sciba
Mobil Oil Corporation
P.O. Drawer F
Crowpoint, NE 87313

RE: 8752-23310-8
Date Samples Rec'd 12-15-86
Assignment 8301

REPORT OF ANALYSIS

ALR Designation	Sponsor Designation	Gross Alpha, dissolved, ± counting error*, pCi/L	Gross Beta, dissolved, ± counting error*, pCi/L
8752-23310-8-1	202 12-10-86	8 ± 5	1 ± 2
-2	207 12-10-86	3 ± 6	3 ± 3
-3	221 12-10-86	10 ± 5	3 ± 2
-4	222 12-10-86	3 ± 4	2 ± 2
-5	223 12-10-86	0 ± 3	2 ± 2
-6	224 12-10-86	5 ± 4	3 ± 2
-7	225 12-10-86	16 ± 6	16 ± 3
-8	276 12-10-86	0 ± 4	2 ± 2

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ .
These samples are scheduled to be disposed of 45 days after the date of this report.


Bud Summers
Radiochemistry
Supervisor

BS/dh


Mobil Oil Corporation

ENERGY MINERALS DIVISION

12-10

REPORT NO. 13-86

CROWNPOINT, SECTION 9, PILOT TEST

BIWEEKLY DATA REPORT

WELL NO.	pH	Ec (μ mhos)	SULFATE (mg/l)	URANIUM (mg/l)	MOLYBDENUM (mg/l)	SODIUM (mg/l)	GROSS A (pci/l)	GROSS B (pci/l)
9U-202	8.5	320	13	10.1	0.005	110	8 \pm 5	1 \pm 2
9U-207	8.5	200	195	10.1	0.005	180	3 \pm 6	3 \pm 3
9U-221	8.5	327	20	10.1	0.006	110	10 \pm 5	3 \pm 2
9U-222	8.4	341	27	10.1	0.005	120	3 \pm 4	2 \pm 2
9U-223	8.4	322	23	10.1	0.009	110	0 \pm 3	2 \pm 2
9U-224	8.3	328	20	10.1	0.005	110	5 \pm 4	3 \pm 2
9U-225	8.3	360	19	10.1	0.005	110	16 \pm 6	16 \pm 3
9U-276B	8.5	478	110	10.1	0.005	150	0 \pm 4	2 \pm 2
9U-279								

COMMENTS:

MONITOR WELLS ANALYSIS BEFORE STABILITY PERIOD

8708240425 870602
PDR ADOCK 04008911
C PDR

Accu-Labs Research, Inc.

11485 W. 48th Avenue Wheat Ridge, Colorado 80033
(303) 423-2766

December 10, 1986
Page 1 of 1

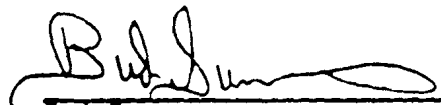
Mr. Joe Sciba
Mobil Oil Corporation
P.O. Drawer F
Crowpoint, NM 87313

RE: 8752-23182-13
Date Samples Rec'd 11-24-86
Assignment 8401

REPORT OF ANALYSIS

ALR Designation	Sponsor Designation	Gross Alpha, dissolved, ± counting error*, pCi/L	Gross Beta, dissolved, ± counting error*, pCi/L
8752-23182-13-1	202 11-19-86	0 ± 4	4 ± 3
-2	207 11-19-86	-2 ± 6	5 ± 4
-3	221 11-19-86	12 ± 6	4 ± 3
-4	222 11-19-86	5 ± 5	2 ± 2
-5	223 11-19-86	1 ± 4	3 ± 2
-6	224 11-19-86	5 ± 4	6 ± 3
-7	225 11-19-86	19 ± 7	21 ± 3
-8	276A 11-19-86	3 ± 4	4 ± 3
-9	276B 11-19-86	2 ± 5	3 ± 3
-10	277 11-19-86	24 ± 10	5 ± 3
-11	278 11-19-86	5 ± 5	8 ± 3
-12	279 11-19-86	1 ± 4	4 ± 3
-13	280 11-19-86	3 ± 4	4 ± 3

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ.
These samples are scheduled to be disposed of 45 days after the date of this report.


Bud Summers
Radiochemistry
Supervisor

BS/dh




Accu-Labs Research, Inc.

11485 W. 48th Avenue Wheat Ridge, Colorado 80033
(303) 423-2766

December 5, 1986

Page 1 of 3

Mr. Joe Sciba
Mobil Oil Corporation
P.O. Drawer F
Crowpoint, NM 87313

RE: 8752-23182-13
Date Samples Rec'd 11-24-86
Assignment 8401

REPORT OF ANALYSIS

ALR Designation	8752-23182-13-1	8752-23182-13-2	8752-23182-13-3	8752-23182-13-4	8752-23182-13-5
Sponsor Designation	202	207	221	222	223
	11-19-86	11-19-86	11-19-86	11-19-86	11-19-86
Determination: mg/L					
Arsenic, dissolved	<0.005	<0.005	<0.005	<0.005	<0.005
Mercury, total	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Cadmium, dissolved	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc, dissolved	<0.005	<0.005	<0.005	<0.005	<0.005
Fluoride	<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum, dissolved	0.017	<0.005	0.014	0.013	0.017
Sodium, dissolved	110	190	120	130	110

December 5, 1986
Page 2 of 3

Mr. Joe Sciba
Mobil Oil Corporation

RE: 8752-23182-13
Date Samples Rec'd 11-24-86
Assignment 8401

REPORT OF ANALYSIS

ALR Designation	Sponsor Designation	Determination: mg/L	8752-23182-13-6	8752-23182-13-7	8752-23182-13-8	8752-23182-13-9	8752-23182-13-10
			224	225	276A	276B	277
			11-19-86	11-19-86	11-19-86	11-19-86	11-19-86
Arsenic, dissolved			<0.005	<0.005	<0.005	<0.005	<0.005
Mercury, total			<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Cadmium, dissolved			<0.005	<0.005	<0.005	<0.005	<0.005
Zinc, dissolved			<0.005	0.015	0.015	<0.005	0.012
Fluoride			<0.5	<0.5	<0.5	<0.5	<0.5
Molybdenum, dissolved			0.013	0.031	0.031	0.006	0.007
Sodium, dissolved			110	120	120	170	150

December 5, 1986
Page 3 of 3

Mr. Joe Sciba
Mobil Oil Corporation

RE: 8752-23182-13
Date Samples Rec'd 11-24-86
Assignment 8401

REPORT OF ANALYSIS

ALR Designation	8752-23182-13-11	8752-23182-13-12	8752-23182-13-13
Sponsor Designation	278	279	280
Determination: mg/L	11-19-86	11-19-86	11-19-86
Arsenic, dissolved	<0.005	<0.005	<0.005
Mercury, total	<0.0001	<0.0001	<0.0001
Cadmium, dissolved	<0.005	<0.005	<0.005
Zinc, dissolved	<0.005	<0.005	<0.005
Fluoride	<0.5	<0.5	<0.5
Molybdenum, dissolved	0.14	0.026	0.029
Sodium, dissolved	110	110	120

These samples are scheduled to be discarded 30 days after the date of this report.

Mary Labisiak
for Cathy Shigarts
Water Laboratory
Supervisor

CS/dh
dh

Mobil Oil Corporation

URANIUM MINERALS DIVISION

11-19

REPORT NO. 12-26

CROWNPOINT, SECTION 9, PILOT TEST MONTHLY DATA REPORT *

<u>WELL NO.</u>	<u>ARSENIC (mg/l)</u>	<u>MERCURY (total) (mg/l)</u>	<u>CADMIUM (mg/l)</u>	<u>ZINC (mg/l)</u>	<u>FLOURIDE (mg/l)</u>
9U-202	<u>10.005</u>	<u>10.0001</u>	<u>10.005</u>	<u>10.005</u>	<u>10.5</u>
9U-207	<u>10.005</u>	<u>10.0001</u>	<u>10.005</u>	<u>10.005</u>	<u>10.5</u>
9U-221	<u>10.005</u>	<u>10.0001</u>	<u>10.005</u>	<u>10.005</u>	<u>10.5</u>
9U-222	<u>10.005</u>	<u>10.0001</u>	<u>10.005</u>	<u>10.005</u>	<u>10.5</u>
9U-223	<u>10.005</u>	<u>10.0001</u>	<u>10.005</u>	<u>10.005</u>	<u>10.5</u>
9U-224	<u>10.005</u>	<u>10.0001</u>	<u>10.005</u>	<u>10.005</u>	<u>10.5</u>
9U-225	<u>10.005</u>	<u>10.0001</u>	<u>10.005</u>	<u>10.005</u>	<u>10.5</u>
9U-276 B	<u>10.005</u>	<u>10.0001</u>	<u>10.005</u>	<u>10.005</u>	<u>10.5</u>
9U-279	<u>10.005</u>	<u>10.0001</u>	<u>10.005</u>	<u>10.005</u>	<u>10.5</u>

COMMENTS: * Samples collected and reported every four weeks / thirteen times per year

Mobil Oil Corporation

URANIUM MINERALS DIVISION

11-19

REPORT NO. 12-26

CROWNPOINT, SECTION 9, PILOT TEST MONTHLY DATA REPORT *

<u>WELL NO.</u>	<u>ARSENIC (mg/l)</u>	<u>MERCURY (total) (mg/l)</u>	<u>CADMIUM (mg/l)</u>	<u>ZINC (mg/l)</u>	<u>FLOURIDE (mg/l)</u>
9U-276A	<u>20.025</u>	<u>20.0001</u>	<u>20.005</u>	<u>0.015</u>	<u>20.5</u>
9U-277	<u>20.025</u>	<u>20.0001</u>	<u>20.005</u>	<u>0.012</u>	<u>20.5</u>
9U-278	<u>20.025</u>	<u>20.0001</u>	<u>20.005</u>	<u>20.005</u>	<u>20.5</u>
9U-280	<u>20.025</u>	<u>20.0001</u>	<u>20.005</u>	<u>20.005</u>	<u>20.5</u>

COMMENTS: * Samples collected and reported every four weeks / thirteen times per year

WORLD OIL CORPORATION

URANIUM MINERALS DIVISION

11-19

REPORT NO. 12-26

CROWNPOINT, SECTION 9, PILOT TEST MONTHLY DATA REPORT *

<u>WELL NO.</u>	<u>SULFATE</u> (mg/l)	<u>URANIUM</u> (mg/l)	<u>MOLYBDENUM</u> (mg/l)	<u>SODIUM</u> (mg/l)	<u>GROSS A</u> (pci/l)	<u>GROSS B</u> (pci/l)
9U-276A	<u>23</u>	<u>20.1</u>	<u>0.031</u>	<u>120</u>	<u>314</u>	<u>413</u>
9U-277	<u>15</u>	<u>20.1</u>	<u>0.007</u>	<u>150</u>	<u>2410</u>	<u>513</u>
9U-278	<u>27</u>	<u>20.1</u>	<u>0.14</u>	<u>110</u>	<u>515</u>	<u>813</u>
9U-280	<u>26</u>	<u>20.1</u>	<u>0.029</u>	<u>120</u>	<u>314</u>	<u>413</u>

COMMENTS: * Samples collected and reported every four weeks / thirteen times per year

Mobil Oil Corporation

ENERGY MINERALS DIVISION

11-19

REPORT NO. 12-26

CROWNPOINT, SECTION 9, PILOT TEST 'BIWEEKLY DATA REPORT

WELL NO.	pH	Ec (μ mhos)	SULFATE (mg/l)	URANIUM (mg/l)	MOLYBDENUM (mg/l)	SODIUM (mg/l)	GROSS A (pci/l)	GROSS B (pci/l)
9U-202	<u>8.4</u>	<u>322</u>	<u>19</u>	<u>20.1</u>	<u>0.017</u>	<u>110</u>	<u>0.54</u>	<u>4.3</u>
9U-207	<u>8.5</u>	<u>150</u>	<u>215</u>	<u>20.1</u>	<u>0.005</u>	<u>190</u>	<u>-2.6</u>	<u>5.4</u>
9U-221	<u>8.5</u>	<u>330</u>	<u>26</u>	<u>20.1</u>	<u>0.014</u>	<u>120</u>	<u>12.6</u>	<u>4.3</u>
9U-222	<u>8.3</u>	<u>353</u>	<u>20</u>	<u>20.1</u>	<u>0.013</u>	<u>130</u>	<u>5.5</u>	<u>2.2</u>
9U-223	<u>8.3</u>	<u>326</u>	<u>23</u>	<u>20.1</u>	<u>0.017</u>	<u>110</u>	<u>1.4</u>	<u>3.2</u>
9U-224	<u>8.2</u>	<u>352</u>	<u>26</u>	<u>20.1</u>	<u>0.013</u>	<u>110</u>	<u>5.4</u>	<u>6.3</u>
9U-225	<u>8.1</u>	<u>362</u>	<u>18</u>	<u>20.1</u>	<u>0.014</u>	<u>110</u>	<u>17.7</u>	<u>21.3</u>
9U-276B	<u>8.7</u>	<u>470</u>	<u>120</u>	<u>20.1</u>	<u>0.006</u>	<u>170</u>	<u>2.5</u>	<u>3.3</u>
9U-279	<u>8.6</u>	<u>384</u>	<u>24</u>	<u>20.1</u>	<u>0.026</u>	<u>110</u>	<u>1.4</u>	<u>4.3</u>

COMMENTS:

STABILITY PERIOD

MOLYBDENUM ANALYSIS

JANUARY - MAY, 1987

INTERMOUNTAIN LABORATORIES

8708240431 870602
PDR ADOCK 04008911
C PDR



2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

25 February, 1987

Mobil Alternative Energy Inc.
P.O. Box F
Crownpoint, NM 87313

Lab No.	Sample ID	Date Sampled	Molybdenum(mg/l)
F4480	9U-211 ● 35 gal	01/21/87	2.88
F4481	9U-216 ● 45 gal	01/21/87	3.13



2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

25 February, 1987

Mobil Alternative Energy Inc.
P.O. Box F
Crownpoint, NM 87313

Lab No.	Sample ID	Date Sampled	Molybdenum(mg/l)
F4506	9U-212 ● 45 gal	01/29/87	0.21
F4507	9U-215 ● 45 gal	01/29/87	1.05
F4507	9U-217 ● 51 gal	01/29/87	0.83
F4662	9U-209	02/13/87	1.05
F4663	9U-210	02/13/87	0.20
F4664	9U-219	02/13/87	1.50
F4665	9U-220	02/13/87	1.25

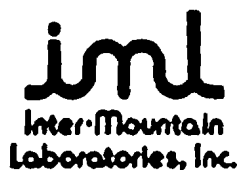


2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

30 March, 1987

Mobil Alternative Energy Inc.
P.O. Box F
Crowpoint, NM 87313

Lab No.	Sample ID	Date Sampled	Dissolved Molybdenum (mg/l)
F4801	9U-208	03/13/87	1.79
F4802	9U-209	03/13/87	0.98
F4803	9U-210	03/13/87	0.14
F4804	9U-213	03/13/87	2.11
F4805	9U-214	03/13/87	0.87
F4838	9U-211	03/20/87	4.05
F4839	9U-215	03/20/87	1.29
F4840	9U-218	03/20/87	0.26
F4841	9U-219	03/20/87	1.40
F4842	9U-220	03/20/87	1.08



2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

20 May, 1987

Mobil Alternative Energy Inc.
P.O. Box F
Crowpoint, NM 87313

Lab No.	Sample ID	Date Sampled	Dissolved Molybdenum (ng/l)
		<i>MARCH</i>	
F4981	9U-212	04/14/87	0.27
F4982	9U-216	04/14/87	3.24
F4983	9U-217	04/14/87	2.35
F5020	9U-208	04/21/87	1.62
F5021	9U-209	04/21/87	0.87
F5022	9U-210	04/21/87	0.16
F5023	9U-214	04/21/87	0.63
F5118	9U-212	05/14/87	0.22
F5119	9U-217	05/14/87	0.86
F5120	9U-219	05/14/87	0.72
F5121	9U-211	05/15/87	2.66
F5122	9U-216	05/15/87	2.87

STABILITY PERIOD

FULL ANALYSES

NOVEMBER 1986 - APRIL 1987

ACCU-LABS, INCORPORATED

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Accu-Labs Research, Inc.

11485 W. 48th Avenue Wheat Ridge, Colorado 80033
(303) 423-2766

December 22, 1986
Page 1 of 2

Mr: Joe Sciba
Mobil Oil Corporation
P.O. Drawer F
Crowpoint, NM 87313

RE: 8752-23255-6
Date Samples Rec'd 12-5-86

REPORT OF ANALYSIS

ALR Designation	8752-23255-6-1	8752-23255-6-2	8752-23255-6-3
Sponsor Designation	208	210	211
Determination: mg/L	<u>11-25-86</u>	<u>11-25-86</u>	<u>11-25-86</u>
Aluminum, dissolved	<0.5	<0.5	<0.5
Arsenic, dissolved	<0.005	0.015	0.006
Barium, dissolved	<0.2	<0.2	<0.2
Boron	0.2	0.3	0.8
Cadmium, dissolved	<0.005	<0.005	<0.005
Chloride	26	10	120
Chromium, dissolved	<0.005	<0.005	<0.005
Cobalt, dissolved	<0.02	<0.02	<0.02
Copper, dissolved	<0.005	<0.005	<0.005
Cyanide	<0.005	<0.005	<0.005
Fluoride	<0.5	<0.5	<0.5
Iron, dissolved	<0.02	<0.02	0.10
Lead, dissolved	0.014	<0.005	<0.005
Manganese, dissolved	<0.005	<0.005	0.067
Molybdenum, dissolved	1.2	0.17	2.3
Mercury, dissolved	0.0001	<0.0001	<0.0001
Nickel, total	<0.02	<0.02	<0.02
Nitrate (as N)	<0.05	<0.05	<0.05
pH	9.1	9.1	8.9
Phenols	<0.002	<0.002	0.005
Selenium, dissolved	<0.005	<0.005	<0.005
Silver, dissolved	<0.005	<0.005	<0.005
Sulfate (as SO ₄)	51	34	33
TDS (at 180°C)	330	270	420



January 16, 1987
Page 1 of 2

Mr. Joe Sciba
Mobil Oil Corporation
P.O. Drawer F
Crownpoint, NM 87313

RE: 8752-23255-6
Date Samples Rec'd 12-5-86

REPORT OF ANALYSIS

ALR Designation	8752-23255-6-1	8752-23255-6-2	8752-23255-6-3
Sponsor Designation	208	210	211
	<u>11-25-86</u>	<u>11-25-86</u>	<u>11-25-86</u>
Determination: pCi/L			
Radium-226, dissolved, ± counting error*	9.7 ± 1.8	1.2 ± 0.6	21 ± 4
Radium-228, dissolved, ± counting error*	0.2 ± 0.8	-0.9 ± 1.0	-0.9 ± 1.9
Combined Ra-226 and Ra-228, dissolved, ± counting error*	9.9 ± 2.0	0.3 ± 1.2	20 ± 4
Uranium (as U), dissolved, mg/L	0.12	0.026	0.022

February 3, 1987
Page 2 of 2


Kr. Joe Sciba
Mobil Oil Corporation

RE: 8752-23300-7
Date Samples Rec'd 12-12-86

REPORT OF ANALYSIS

ALR Designation	8752-23300-7-6	8752-23300-7-7
Sponsor Designation	219	220
	<u>11-26-86</u>	<u>11-26-86</u>
Determination: pCi/L		
Radium-226, dissolved, ± counting error*	180 ± 10	19 ± 2
Radium-228, dissolved, ± counting error*	-0.7 ± 1.9	1.9 ± 1.7
Combined Radium-226 and Radium-228, dissolved, ± counting error*	180 ± 10	21 ± 2.6
Uranium (as U), dissolved, mg/L	1.4	0.42

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ.
These samples are scheduled to be discarded 45 days after the date of this report.


Bud Summers
Radiochemistry
Supervisor

BS/dh *dh*

January 12, 1987
Page 4 of 4

Mr. Joe Sciba
Mobil Oil Corporation

RE: 8752-23300-7
Date Samples Rec'd 12-12-86

REPORT OF ANALYSIS

ALR Designation
Sponsor Designation

8752-23300-7-6
219
11-26-86

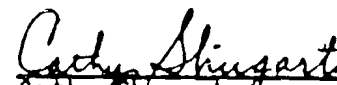
8752-23300-7-7
220
11-26-86

Determination: mg/L

Molybdenum, dissolved	3.3, 2.6	0.019
Mercury, dissolved	0.0013	<0.0001
Nickel, total	<0.02	<0.02
Nitrate (as N)	<0.05	<0.05
pH	9.2	9.2
Phenols	0.006	0.003
Selenium, dissolved	0.049	<0.005
Silver, dissolved	<0.005	<0.005
Sulfate (as SO ₄)	87	25
TDS (at 180°C)	550	320
Molybdenum*	2.1	--

*Sample neutralized to pH 7 with NaOH; supernate analyzed for molybdenum.

These samples are scheduled to be discarded 30 days after the date of this report.


Cathy Shugarts
Water Laboratory
Supervisor

CS/dh *dh*

January 12, 1987
Page 3 of 4

Mr. Joe Sciba
Mobil Oil Corporation

RE: 8752-23300-7
Date Samples Rec'd 12-12-86

REPORT OF ANALYSIS

ALR Designation
Sponsor Designation

8752-23300-7-6
219
11-26-86

8752-23300-7-7
220
11-26-86

Determination: mg/L

Aluminum, dissolved
Arsenic, dissolved
Barium, dissolved
Boron
Cadmium, dissolved
Chloride
Chromium, dissolved
Cobalt, dissolved
Copper, dissolved
Cyanide
Fluoride
Iron, dissolved
Lead, dissolved
Manganese, dissolved

3.4
0.008
0.7
0.3
<0.005
74
<0.005
<0.02
0.020
<0.005
<0.5
0.38
0.10
0.030

<0.5
0.043
0.2
0.2
<0.005
47
<0.005
<0.02
0.020
<0.005
<0.5
<0.02
<0.005
<0.005



Accu-Labs Research, Inc.

11485 W. 48th Avenue Wheat Ridge, Colorado 80033
(303) 423-2766

February 3, 1987

Page 1 of 2

Mr. Joe Sciba
Mobil Oil Corporation
P.O. Drawer F
Crowpoint, NM 87313

RE: 8752-23300-7

Date Samples Rec'd 12-12-86

REPORT OF ANALYSIS

ALR Designation	8752-23300-7-1	8752-23300-7-2	8752-23300-7-3	8752-23300-7-4	8752-23300-7-5
Sponsor Designation	209	212	215	216	217
Determination: pCi/L	11-26-86	11-26-86	11-26-86	11-26-86	11-26-86
Radium-226, dissolved, ± counting error*	41 ± 4	1.1 ± 0.6	39 ± 4	27 ± 3	7.1 ± 1.6
Radium-228, dissolved, ± counting error*	0.1 ± 1.1	-0.1 ± 0.9	1.6 ± 1.5	0.1 ± 1.0	0.0 ± 0.9
Combined Radium-226 and Radium-228, dissolved, ± counting error*	41 ± 4	1.0 ± 1.1	41 ± 4	27 ± 3	7.1 ± 1.8
Uranium (as U), dissolved, mg/L	0.11	0.003	0.29	0.081	0.084

January 12, 1987
Page 2 of 4

Mr. Joe Sciba
Mobil Oil Corporation

RE: 8752-23300-7
Date Samples Rec'd 12-12-86

REPORT OF ANALYSIS

ALR Designation	8752-23300-7-1	8752-23300-7-2	8752-23300-7-3	8752-23300-7-4	8752-23300-7-5
Sponsor Designation	209	212	215	216	217
Determination: mg/L	11-26-86	11-26-86	11-26-86	11-26-86	11-26-86
Molybdenum, dissolved	3.2	0.37	1.7	7.7, 7.2	4.0, 3.7
Mercury, dissolved	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel, total	<0.02	<0.02	<0.02	<0.02	<0.02
Nitrate (as N)	<0.05	<0.05	<0.05	<0.05	<0.05
pH	8.9	9.5	9.5	9.9	9.2
Phenols	0.003	0.004	0.003	0.035	0.002
Selenium, dissolved	<0.005	<0.005	<0.005	0.002	<0.005
Silver, dissolved	<0.005	<0.005	<0.005	<0.005	<0.005
Sulfate (as SO ₄)	62	23	45	31	35
TDS (at 180°C)	320	310	460	420	340
Molybdenum*	--	--	--	6.8	3.0

*Sample neutralized to pH 7 with NaOH; supernate analyzed for molybdenum.



Accu-Labs Research, Inc.

11485 W. 48th Avenue Wheat Ridge, Colorado 80033
(303) 423-2766

January 12, 1987
Page 1 of 4

Mr. Joe Sciba
Mobil Oil Corporation
P.O. Drawer F
Crowpoint, NM 87313

RE: 8752-23300-7
Date Samples Rec'd 12-12-86

REPORT OF ANALYSIS

ALR Designation	8752-23300-7-1	8752-23300-7-2	8752-23300-7-3	8752-23300-7-4	8752-23300-7-5
Sponsor Designation	209	212	215	216	217
Determination: mg/L	<u>11-26-86</u>	<u>11-26-86</u>	<u>11-26-86</u>	<u>11-26-86</u>	<u>11-26-86</u>
Aluminum, dissolved	<0.5	<0.5	<0.5	<0.5	<0.5
Arsenic, dissolved	<0.005	<0.005	0.026	0.034	<0.005
Barium, dissolved	<0.2	<0.2	<0.2	0.3	<0.2
Boron	0.2	0.3	0.3	0.3	0.2
Cadmium, dissolved	<0.005	<0.005	<0.005	<0.005	<0.005
Chloride	40	9	94	84	75
Chromium, dissolved	<0.005	<0.005	<0.005	<0.005	<0.005
Cobalt, dissolved	<0.02	<0.02	<0.02	<0.02	<0.02
Copper, dissolved	0.005	0.005	0.020	0.005	0.010
Cyanide	<0.005	<0.005	<0.005	<0.005	<0.005
Fluoride	<0.5	<0.5	<0.5	<0.5	<0.5
Iron, dissolved	<0.02	0.02	0.04	0.04	<0.02
Lead, dissolved	0.012	<0.005	<0.005	<0.005	<0.005
Manganese, dissolved	<0.005	<0.005	0.014	<0.005	<0.005

January 16, 1987

Page 2 of 2

Mr. Joe Sciba
Mobil Oil Corporation

RE: 8752-23255-6
Date Samples rec'd 12-5-86

REPORT OF ANALYSIS

ALR Designation	8752-23255-6-4	8752-23255-6-5	8752-23255-6-6
Sponsor Designation	213	214	218
	<u>11-25-86</u>	<u>11-25-86</u>	<u>11-25-86</u>
Determination: pCi/L			
Radium-226, dissolved, ± counting error*	6.7 ± 1.4	2.5 ± 1.1	3.6 ± 1.0
Radium-228, dissolved, ± counting error*	0.3 ± 1.0	0.5 ± 2.3	0.5 ± 3.3
Combined Ra-226 and Ra-228, dissolved, ± counting error*	7.0 ± 1.7	3.0 ± 2.5	4.1 ± 3.4
Uranium (as U), dissolved, mg/L	0.15	0.056	0.081

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ.
These samples are scheduled to be discarded 45 days after the date of this report.

Bud Summers

Bud Summers
Radiochemistry
Supervisor

BS/dh *dh*

December 22, 1986

Page 2 of 2

Mr. Joe Sciba
Mobil Oil Corporation

RE: 8752-23255-6
Date Samples Rec'd 12-5-86

REPORT OF ANALYSIS

ALR Designation	8752-23255-6-4	8752-23255-6-5	8752-23255-6-6
Sponsor Designation	213	214	218
Determination: mg/L	<u>11-25-86</u>	<u>11-25-86</u>	<u>11-25-86</u>
Aluminum, dissolved	<0.5	0.6	<0.5
Arsenic, dissolved	<0.005	0.009	0.016
Barium, dissolved	<0.2	<0.2	<0.2
Boron	0.2	0.5	0.2
Cadmium, dissolved	<0.005	<0.005	<0.005
Chloride	35	51	19
Chromium, dissolved	<0.005	<0.005	<0.005
Cobalt, dissolved	<0.02	<0.02	<0.02
Copper, dissolved	<0.005	<0.005	<0.005
Cyanide	0.006	<0.005	<0.005
Fluoride	<0.5	0.6	<0.5
Iron, dissolved	<0.02	0.20	<0.02
Lead, dissolved	<0.005	0.005	<0.005
Manganese, dissolved	<0.005	<0.005	<0.005
Molybdenum, dissolved	1.1	0.91	0.29
Mercury, dissolved	<0.0001	<0.0001	<0.0001
Nickel, total	<0.02	<0.02	<0.02
Nitrate (as N)	<0.05	<0.05	<0.05
pH	9.2	10.1	9.1
Phenols	0.002	0.002	<0.002
Selenium, dissolved	0.008	<0.005	<0.005
Silver, dissolved	<0.005	<0.005	<0.005
Sulfate (as SO ₄)	45	64	32
TDS (at 180°C)	310	360	300

These samples are scheduled to be discarded 30 days after the date of this report.

Cathy Shugarts
Cathy Shugarts
Water Laboratory
Supervisor

CS/dh *dh*



Accu-Labs Research, Inc.
 11485 W. 48th Avenue Wheat Ridge, Colorado 80033
 (303) 423-2766

January 15, 1987
 Page 1 of 1

Mr. Joe Sciba
 Mobil Oil Corporation
 P.O. Drawer F
 Crownpoint, NM 87313

RE: 8752-23373-4
 Date Samples Rec'd 12-23-86

REPORT OF ANALYSIS

ALR Designation	8752-23373-4-1	8752-23373-4-2	8752-23373-4-3	8752-23373-4-4
Sponsor Designation	208	213	214	218
	<u>12-17-86</u>	<u>12-17-86</u>	<u>12-17-86</u>	<u>12-17-86</u>
Determination: mg/L				
Chloride	30	34	51	13
Manganese, dissolved	<0.005	<0.005	<0.005	<0.005
Molybdenum, dissolved	2.0	1.7	1.2	0.55
Phenols	0.004	0.004	0.009	<0.002
Selenium, dissolved	<0.005	<0.005	<0.005	<0.005
Sulfate (as SO ₄)	50	33	64	30
TDS (at 180°C)	340	340	380	300

These samples are scheduled to be disposed of 30 days after the date of this report.

Cathy Shugarts
 Cathy Shugarts
 Supervisor
 Water Laboratory

CS/dh *dh*



Accu-Labs Research, Inc.
 11485 W. 48th Avenue Wheat Ridge, Colorado 80033
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February 11, 1987
 Page 1 of 1

Mr. Joe Sciba
 Mobil Oil Corporation
 P.O. Drawer F
 Crownpoint, NM 87313

RE: 8752-23538-5
 Date Samples Rec'd 1-28-87

REPORT OF ANALYSIS

ALR Designation	8752-23538-5-1	8752-23538-5-2	8752-23538-5-3	8752-23538-5-4	8752-23538-5-5
Sponsor Designation	211	212	215	216	217
	<u>1-19-87</u>	<u>1-19-87</u>	<u>1-20-87</u>	<u>1-21-87</u>	<u>1-22-87</u>
Determination: mg/L					
Chloride	130	9.7	110	80	81
Manganese, dissolved	0.052	<0.005	<0.005	0.005	<0.005
Molybdenum, dissolved	4.6, 3.9	0.41, 0.28	2.2, 1.9	4.9, 4.1	3.6, 2.8
Phenols	0.008	0.006	0.005	0.025	0.003
Selenium, dissolved	0.007	<0.005	<0.005	0.008	<0.005
Sulfate (as SO ₄)	22	31	44	39	23
TDS (at 180°C)	450	310	460	380	370

These samples are scheduled to be discarded 30 days after the date of this report.

Cathy Shugarts
 Cathy Shugarts
 Water Laboratory
 Supervisor

CS/dh *da*



Accu-Labs Research, Inc.
 11485 W. 48th Avenue Wheat Ridge, Colorado 80033
 (303) 423-2766

February 27, 1987
 Page 1 of 1

Mr. Joe Sciba
 Mobil Oil Corporation
 P.O. Drawer F
 Crownpoint, NM 87313

RE: 8752-23538-5
 Date Samples Rec'd 1-28-87

REPORT OF ANALYSIS

ALR Designation	8752-23538-5-1	8752-23538-5-2	8752-23538-5-3	8752-23538-5-4	8752-23538-5-5
Sponsor Designation	211	212	215	216	217
Determination: pCi/L	1-19-87	1-19-87	1-20-87	1-21-87	1-22-87

Radium-226, dissolved,
 ± counting error*

41 ± 3 1.5 ± 0.6 46 ± 3 26 ± 3 9.7 ± 1.6

Radium-228, dissolved,
 ± counting error*

1.4 ± 1.0 0.2 ± 1.1 1.0 ± 1.1 0.6 ± 1.7 0.2 ± 1.1

Combined Ra-226 and Ra-228,
 ± counting error*

42 ± 3 1.7 ± 1.3 47 ± 3 27 ± 3 9.9 ± 1.9

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ. These samples are scheduled to be discarded 45 days after the date of this report.

BS/dh *BS*

Bud Summers
 Bud Summers
 Radiochemistry
 Supervisor



Accu-Labs Research, Inc.
 11485 W. 48th Avenue Wheat Ridge, Colorado 80033
 (303) 423-2766

March 5, 1987
 Page 1 of 1

Mr. Joe Sciba
 Mobil Oil Corporation
 P.O. Drawer F
 Crowpoint, NM 87313

RE: 8752-23665-5
 Date Samples Rec'd 2-17-87

REPORT OF ANALYSIS

ALR Designation	8752-23665-5-1	8752-23665-5-2	8752-23665-5-3	8752-23665-5-4	8752-23665-5-5
Sponsor Designation	209	210	219	220	9u80
	2-9-87	2-10-87	2-11-87	2-12-87	2-13-87

Determination: mg/L

Chloride	50	8	66	34	--
Manganese, dissolved	0.016	<0.005	0.028	<0.005	--
Molybdenum, dissolved	1.3	0.25	1.3	1.2	<0.005
Phenols	0.004	<0.002	0.006	<0.002	--
Selenium, dissolved	<0.05*	<0.025*	0.022	<0.025	--
Sulfate (as SO ₄)	85	34	89	40	--
TDS (at 180°C)	380	270	410	250	--

*Higher detection limit due to sample matrix interference.

These samples are scheduled to be discarded 30 days after the date of this report.

Cathy Shugarts
 Cathy Shugarts
 Water Laboratory
 Supervisor

CS/dh *dh*



Accu-Labs Research, Inc.
11485 W. 48th Avenue Wheat Ridge, Colorado 80033
(303) 423-2766

April 14, 1987
Page 1 of 1

Mr. Joe Sciba
Mobil Oil Corporation
P.O. Drawer F
Crowpoint, NM 87313

RE: 8752-23665-5
Date Samples Rec'd 2-17-87

REPORT OF ANALYSIS

ALR Designation	8752-23665-5-1	8752-23665-5-2	8752-23665-5-3	8752-23665-5-4
Sponsor Designation	209	210	219	220
	<u>2-9-87</u>	<u>2-10-87</u>	<u>2-11-87</u>	<u>2-12-87</u>
Determination: pCi/L				
Radium-226, dissolved, ± counting error*	32 ± 3	2.4 ± 0.9	88 ± 5	13 ± 2
Radium-228, dissolved, ± counting error*	1.1 ± 1.3	-0.2 ± 1.0	3.1 ± 1.1	0.7 ± 0.9
Combined Ra-226 and Ra-228, ± counting error*	33 ± 3	2.2 ± 1.3	91 ± 5	14 ± 2

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ. These samples are scheduled to be discarded 45 days after the date of this report.

Bud Summers
Radiochemistry
Supervisor

BS/dh

April 21, 1987
Page 2 of 2


Mr. Joe Sciba
Mobil Oil Corporation

RE: 8752-23873-5
Date Samples Rec'd 3-18-87

REPORT OF ANALYSIS

ALR Designation	8752-23873-5-1	8752-23873-5-2	8752-23873-5-3	8752-23873-5-4	8752-23873-5-5
Sponsor Designation	208	209	210	213	214
Determination: mg/L	3-10-87	3-12-87	3-11-87	3-9-87	3-13-87
Mercury, dissolved	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel, total	<0.02	<0.02	<0.02	<0.02	<0.02
Nitrate (as N)	<0.05	<0.05	<0.05	<0.05	<0.05
pH	9.1	9.3	9.2	9.0	10.6
Phenols	0.003	0.005	0.009	0.010	0.019
Selenium, dissolved	<0.005	<0.005	<0.005	<0.005	<0.005
Silver, dissolved	<0.005	<0.005	<0.005	<0.005	<0.005
Sulfate (as SO ₄)	66	74	38	49	75
TDS (at 180°C)	380	410	320	350	360

These samples are scheduled to be discarded 30 days after the date of this report.


 Cathy Shugarts
 Water Laboratory
 Supervisor

CS/dh
dl



Accu-Labs Research, Inc.
 11685 W. 48th Avenue Wheat Ridge, Colorado 80033
 (303) 423-2766

April 21, 1987
 Page 1 of 2

Mr. Joe Sciba
 Mobil Oil Corporation
 P.O. Drawer F
 Crownpoint, NM 87313

RE: 8752-23873-5
 Date Samples Rec'd 3-18-87

REPORT OF ANALYSIS

ALR Designation	8752-23873-5-1	8752-23873-5-2	8752-23873-5-3	8752-23873-5-4	8752-23873-5-5
Sponsor Designation	208	209	210	213	214
Determination: mg/L	3-10-87	3-12-87	3-11-87	3-9-87	3-13-87

Aluminum, dissolved	<0.5	<0.5	<0.5	<0.5	1.1
Arsenic, dissolved	<0.005	<0.005	0.018	<0.005	0.013
Barium, dissolved	<0.2	<0.2	<0.2	<0.2	<0.2
Boron	0.2	0.2	0.7	0.2	0.7
Cadmium, dissolved	<0.005	<0.005	<0.005	<0.005	<0.005
Chloride	31	44	11	14	50
Chromium, dissolved	<0.005	<0.005	<0.005	<0.005	<0.005
Cobalt, dissolved	<0.02	<0.02	<0.02	<0.02	<0.02
Copper, dissolved	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	<0.005	<0.005	<0.005	<0.005	0.005
Fluoride	<0.5	<0.5	<0.5	<0.5	0.8
Iron, dissolved	0.02	<0.02	<0.02	<0.02	0.05
Lead, dissolved	0.005	0.005	<0.005	<0.005	<0.005
Manganese, dissolved	0.009	<0.005	<0.005	0.007	<0.005
Molybdenum, dissolved (HNO ₃)	2.1	0.55	0.17	2.0	<0.005
Molybdenum, dissolved (HCl)	2.0	0.32	0.17	2.5	0.97



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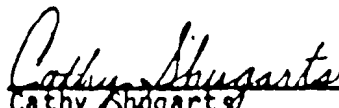
Mr. Joe Sciba
Mobil Oil Corporation
P.O. Drawer F
Crowpoint, NM 87313


RE: 8752-23943-1
Date Samples Rec'd 3-30-87

REPORT OF ANALYSIS

ALR Designation	8752-23943-1-1
Sponsor Designation	211
	<u>3-20-87</u>
Determination: mg/L	
Aluminum, dissolved	<0.2
Arsenic, dissolved	<0.005
Barium, dissolved	<0.2
Boron	0.7
Cadmium, dissolved	<0.005
Chloride	130
Chromium, dissolved	<0.005
Cobalt, dissolved	<0.02
Copper, dissolved	<0.005
Cyanide	<0.005
Fluoride	<0.5
Iron, dissolved	0.03
Lead, dissolved	<0.005
Manganese, dissolved	0.023
Molybdenum, dissolved (HCl)	2.6
Molybdenum, dissolved (HNO ₃)	3.9
Mercury, dissolved	<0.0001
Nickel, total	<0.02
Nitrate/Nitrite (as N)	1.1
pH	9.3
Phenols	0.011
Selenium, dissolved	0.006
Silver, dissolved	<0.005
Sulfate (as SO ₄)	30
TDS (at 180°C)	450

These samples are scheduled to be disposed of 30 days after the date of this report.


Cathy Shugarts
Supervisor
Water Laboratory

CS/dh 



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(303) 423-2766

May 22, 1987
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Mr. Joe Sciba
Mobil Oil Corporation
P.O. Drawer F
Crowpoint, NM 87313

RE: 8752-23943-1
Date Samples Rec'd 3-30-87

REPORT OF ANALYSIS

ALR Designation	8752-23943-1-1
Sponsor Designation	211
	<u>3-20-87</u>
Determination: pCi/L	
Radium-226, dissolved, ± counting error*	30 ± 3
Radium-228, dissolved, ± counting error*	0.5 ± 0.9
Combined Ra-226 and Ra-228, dissolved, ± counting error*	30 ± 3
Uranium (as U), dissolved, mg/L	0.015

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ.
These samples are scheduled to be disposed of 45 days after the date of this report.

Bud Summers
Radiochemistry
Supervisor

BS/dh

April 13, 1987
Page 2 of 2

Mr. Joe Sciba
Mobil Oil Corporation

RE: 8752-23911-4
Date Samples Rec'd 3-24-87

REPORT OF ANALYSIS

ALR Designation Sponsor Designation	8752-23911-4-1 215 3-19-87	8752-23911-4-2 218 3-16-87	8752-23911-4-3 219 3-17-87	8752-23911-4-4 220 3-18-87
Determination: mg/L				
Mercury, dissolved	<0.0001	<0.0001	<0.0001	<0.0001
Nickel, total	<0.02	<0.02	<0.02	<0.02
Nitrate/Nitrite (as N)	<0.05	<0.05	1.3	<0.05
pH	9.8	9.1	9.4	9.1
Phenols	0.006	0.015	0.009	0.017
Selenium, dissolved	<0.005	<0.005	0.008	<0.005
Silver, dissolved	<0.005	<0.005	<0.005	<0.005
Sulfate (as SO ₄)	48	38	76	40
TDS (at 180°C)	420	300	460	310

These samples are scheduled to be discarded 30 days after the date of this report.

Cathy Shugarts
Cathy Shugarts
Water Laboratory
Supervisor

CS/dh *JS*



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April 13, 1987
Page 1 of 2

Mr. Joe Sciba
Mobil Oil Corporation
P.O. Drawer F
Crownpoint, NM 87313

RE: 8752-23911-4
Date Samples Rec'd 3-24-87

REPORT OF ANALYSIS

ALR Designation	8752-23911-4-1	8752-23911-4-2	8752-23911-4-3	8752-23911-4-4
Sponsor Designation	215	218	219	220
	3-19-87	3-16-87	3-17-87	3-18-87
Determination: mg/L				
Aluminum, dissolved	<0.5	<0.5	2.1	<0.5
Arsenic, dissolved	0.030	0.024	0.006	0.081
Barium, dissolved	<0.2	<0.2	0.3	<0.2
Boron	0.3	0.2	0.3	0.2
Cadmium, dissolved	<0.005	<0.005	<0.005	<0.005
Chloride	98	10	44	28
Chromium, dissolved	<0.005	<0.005	<0.005	<0.005
Cobalt, dissolved	<0.005	<0.005	<0.005	<0.005
Copper, dissolved	<0.005	<0.005	0.010	<0.005
Cyanide	<0.005	<0.005	<0.005	<0.005
Fluoride	<0.5	<0.5	<0.5	<0.5
Iron, dissolved	0.02	0.02	0.20	0.02
Lead, dissolved	<0.005	<0.005	0.067	0.005
Manganese, dissolved	0.008	0.007	0.017	0.007
Molybdenum, dissolved (HNO ₃)	1.2	0.24	1.3	1.1
Molybdenum, dissolved (HCl)	0.78	0.24	0.67	1.1



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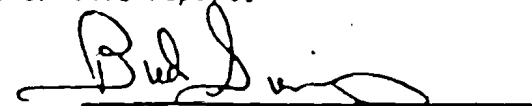
Mr. Joe Sciba
 Mobil Oil Corporation
 P.O. Drawer F
 Crownpoint, NM 87313

RE: 8752-23873-5
 Date Samples Rec'd 3-18-87

REPORT OF ANALYSIS

ALR Designation	8752-23873-5-1	8752-23873-5-2	8752-23873-5-3	8752-23873-5-4	8752-23873-5-5
Sponsor Designation	208	209	210	213	214
	3-10-87	3-12-87	3-11-87	3-9-87	3-13-87
Determination: pCi/L					
Radium-226, dissolved, ± counting error*	8.4 ± 1.3	20 ± 3	1.0 ± 0.5	8.8 ± 1.5	3.3 ± 0.8
Radium-228, dissolved, ± counting error*	-0.5 ± 1.0	0.7 ± 0.9	0.1 ± 1.0	-0.9 ± 0.9	0.5 ± 0.9
Combined Ra-226 and Ra-228, ± counting error*	7.9 ± 1.6	21 ± 3	1.1 ± 1.1	7.9 ± 1.7	3.8 ± 1.2
Uranium (as U), dissolved, mg/L	0.086	0.061	0.021	0.11	0.023

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ. These samples are scheduled to be discarded 45 days after the date of this report.


 Bud Summers
 Radiochemistry
 Supervisor

BS/dh *dh*



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April 30, 1987
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Mr. Joe Sciba
 Mobil Oil Corporation
 P.O. Drawer F
 Crownpoint, NM 87313

RE: 8752-23911-4
 Date Samples Rec'd 3-24-87

REPORT OF ANALYSIS

ALR Designation	8752-23911-4-1	8752-23911-4-2	8752-23911-4-3	8752-23911-4-4
Sponsor Designation	215	218	219	220
	3-19-87	3-16-87	3-17-87	3-18-87

Determination: pCi/L

Radium-226, dissolved,
 ± counting error*

40 ± 2 4.0 ± 0.6 57 ± 2 12 ± 1

Radium-228, dissolved,
 ± counting error*

0.9 ± 0.8 0.2 ± 1.2 0.9 ± 1.1 0.0 ± 0.8


Combined Ra-226 and
 Ra-228, dissolved,
 ± counting error*


41 ± 2 4.2 ± 1.3 58 ± 2 12 ± 1

Uranium (as U),
 dissolved, mg/L

0.13 0.036 0.76 0.35

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ.
 These samples are scheduled to be discarded 45 days after the date of this report.


 Bud Summers
 Radiochemistry
 Supervisor

BS/dh 



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May 11, 1987
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Mr. Joe Sciba
Mobil Oil Corporation
P.O. Drawer F
Crownpoint, NM 87313

RE: 8752-24100-3
Date Samples Rec'd 4-16-87

REPORT OF ANALYSIS

ALR Designation	8752-24100-3-1	8752-24100-3-2	8752-24100-3-3
Sponsor Designation	212	216	217
	<u>4/10 + 4/13/87</u>	<u>4/10/87</u>	<u>4/13/87</u>

Determination: mg/L

Aluminum, dissolved	<0.5	<0.5	<0.5
Arsenic, dissolved	<0.005	0.027	<0.005
Barium, dissolved	<0.2	<0.2	<0.2
Boron	0.1	0.2	0.2
Cadmium, dissolved	<0.005	<0.005	<0.005
Chloride	7	81	84
Chromium, dissolved	<0.005	<0.005	<0.005
Cobalt, dissolved	<0.02	<0.02	<0.02
Copper, dissolved	<0.005	<0.005	<0.005
Cyanide	<0.005	<0.005	<0.005
Fluoride	<0.5	<0.5	<0.5
Iron, dissolved	0.01	0.06	0.03
Lead, dissolved	<0.005	<0.005	<0.005
Manganese, dissolved	<0.005	0.005	<0.005
Molybdenum, diss. (HCl)	0.30	3.7	1.6
Molybdenum, diss. (HNO ₃)	0.33	4.2	3.0
Mercury, dissolved	<0.0001	<0.0001	<0.0001
Nickel, total	<0.01	<0.01	<0.01
Nitrate/Nitrite (as N)	<0.05	<0.05	0.22
pH	9.6	10.0	9.2
Phenols	<0.002	0.018	0.003

May 11, 1987

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Mr. Joe Sciba
Mobil Oil Corporation

RE: 8752-24100-3
Date Samples Rec'd 4-16-87

REPORT OF ANALYSIS

ALR Designation	8752-24100-3-1	8752-24100-3-2	8752-24100-3-3
Sponsor Designation	212	216	217
	<u>4/10 + 4/13/87</u>	<u>4/10/87</u>	<u>4/13/87</u>

Determination: mg/L

Selenium, dissolved	<0.005	0.026	0.020
Silver, dissolved	<0.005	<0.005	<0.005
Sulfate (as SO ₄)	55	45	50
TDS (at 180°C)	310	340	360
Eh (Redox Potential), mv	--	--	+ 221

These samples are scheduled to be discarded 30 days after the date of this report.

Cathy Shugarts
Cathy Shugarts
Water Laboratory
Supervisor

CS/dh *dh*



Accu-Labs Research, Inc.
11485 W. 48th Avenue Wheat Ridge, Colorado 80033
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May 22, 1987
Page 1 of 1


Mr. Joe Sciba
Mobil Oil Corporation
P.O. Drawer F
Crowpoint, NM 87313


RE: 8752-24100-3
Date Samples Rec'd 4-16-87

REPORT OF ANALYSIS

ALR Designation	8752-24100-3-1	8752-24100-3-2	8752-24100-3-3
Sponsor Designation	212	216	217
	<u>4-10 and 4-13-87</u>	<u>4-10-87</u>	<u>4-13-87</u>
Determination: pCi/L			
Uranium (as U), dissolved, mg/L	0.004	0.017	0.052
Radium-226, dissolved, ± counting error*	0.9 ± 0.9	15 ± 2	7.4 ± 1.8
Radium-228, dissolved, ± counting error*	0.4 ± 0.9	1.5 ± 1.0	0.5 ± 0.7
Combined Ra-226 and Ra-228, dissolved, ± counting error*	1.3 ± 1.3	16 ± 2	7.9 ± 1.9

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ.
These samples are scheduled to be disposed of 45 days after the date of this report.


Bud Summers
Radiochemistry
Supervisor

BS/dh 



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May 11, 1987
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Mr. Joe Sciba
 Mobil Oil Corporation
 P.O. Drawer F
 Crompoint, NH 87313

RE: 8752-24125-4
 Date Samples Rec'd 4-23-87

REPORT OF ANALYSIS

ALR Designation	8752-24125-4-1	8752-24125-4-2	8752-24125-4-3	8752-24125-4-4
Sponsor Designation	208	209	210	214
	<u>4-20-87</u>	<u>4-20-87</u>	<u>4-20-87</u>	<u>4-20-87</u>
Determination: mg/L				
Chloride	27	50	<3	55
Manganese, dissolved	0.009	0.009	<0.005	<0.005
Molybdenum, dissolved (HCl)	2.2	0.66	0.21	0.15
Molybdenum, diss. (HNO ₃)	2.3	1.0	0.22	0.85
Phenols	<0.002	<0.002	<0.002	<0.002
Selenium, dissolved	<0.005	<0.005	<0.005	<0.005
Sulfate (as SO ₄)	11,000	10,000	11,000	11,000
TDS (at 180°C)	11,000	11,000	11,000	11,000

These samples are scheduled to be discarded 30 days after the date of this report.

Cathy Shugart
 Cathy Shugart
 Water Laboratory
 Supervisor

CS/dh
 dh



Accu-Labs Research, Inc.
 11485 W. 48th Avenue Wheat Ridge, Colorado 80033
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May 22, 1987
 Page 1 of 1

Mr. Joe Sciba
 Mobil Oil Corporation
 P.O. Drawer F
 Crownpoint, NM 87313

RE: 8752-24125-4
 Date Samples Rec'd 4-23-87

REPORT OF ANALYSIS

ALR Designation	8752-24125-4-1	8752-24125-4-2	8752-24125-4-3	8752-24125-4-4
Sponsor Designation	208	209	210	214
	4-20-87	4-20-87	4-20-87	4-20-87

Determination: PCI/L

Radium-226, dissolved,
 ± counting error*

6.8 ± 1.4

32 ± 3

1.8 ± 0.9

5.3 ± 1.3

Radium-228, dissolved,
 ± counting error*

0.2 ± 0.7

1.2 ± 0.8

0.1 ± 0.8

0.3 ± 0.9

Combined Ra-226 and
 Ra-228, dissolved,
 ± counting error*

7.0 ± 1.6

33 ± 3

1.9 ± 1.2

5.6 ± 1.6

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ. These samples are scheduled to be discarded 45 days after the date of this report.

Bud Summers
 Bud Summers
 Radiochemistry
 Supervisor

BS/dh *dh*