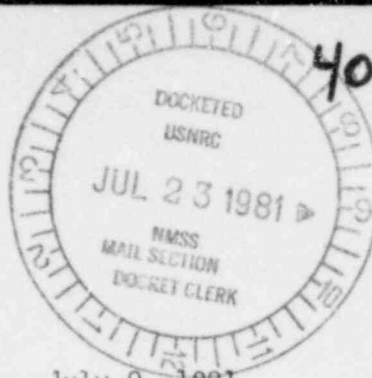


EXXON MINERALS COMPANY

POST OFFICE BOX 3020 • CASPER, WYOMING 82602



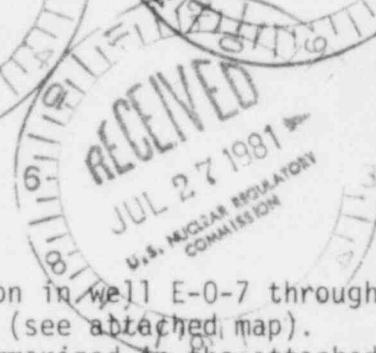
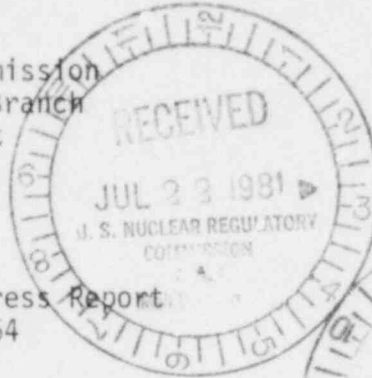
PDR
Return to
D. Cramers
Highland Uranium Operations 396-55

July 9, 1981

U.S. Nuclear Regulatory Commission
Uranium Recovery Licensing Branch
Division of Waste Management
Washington, D.C. 20555

ATTN: Mr. John J. Linehan

RE: Monthly Excursion Progress Report
NRC License No. SUA-1064
Docket No. 40-8064



Dear Mr. Linehan:

We have continued to monitor the excursion in well E-0-7 through weekly sampling from wells E-0-6, 7, 8, and 9 (see attached map). Available results from sample analyses are summarized in the attached table and graphs.

The results show that analysis for well E-08 have returned to normal pre-excursion levels. Analyses for well E-07 continue to gradually decrease, but have not dropped to normal levels yet. This being the case, we will continue weekly sampling from wells E-0-6, 7, and 8, but we have eliminated well E-0-9 from the weekly sampling program. Our third pattern injection/production (I/P) flow ratio target will remain at 0.50 until well E-0-7 analyses also return to near-normal levels.

We will continue to file monthly follow-up reports until this situation is acceptably resolved. If you have any questions, please call Marc LeVier at (307)358-3244, extension 222.

Sincerely,

J.B. Shannon
Mine Manager

FEE EXEMPT

JBS/ksk

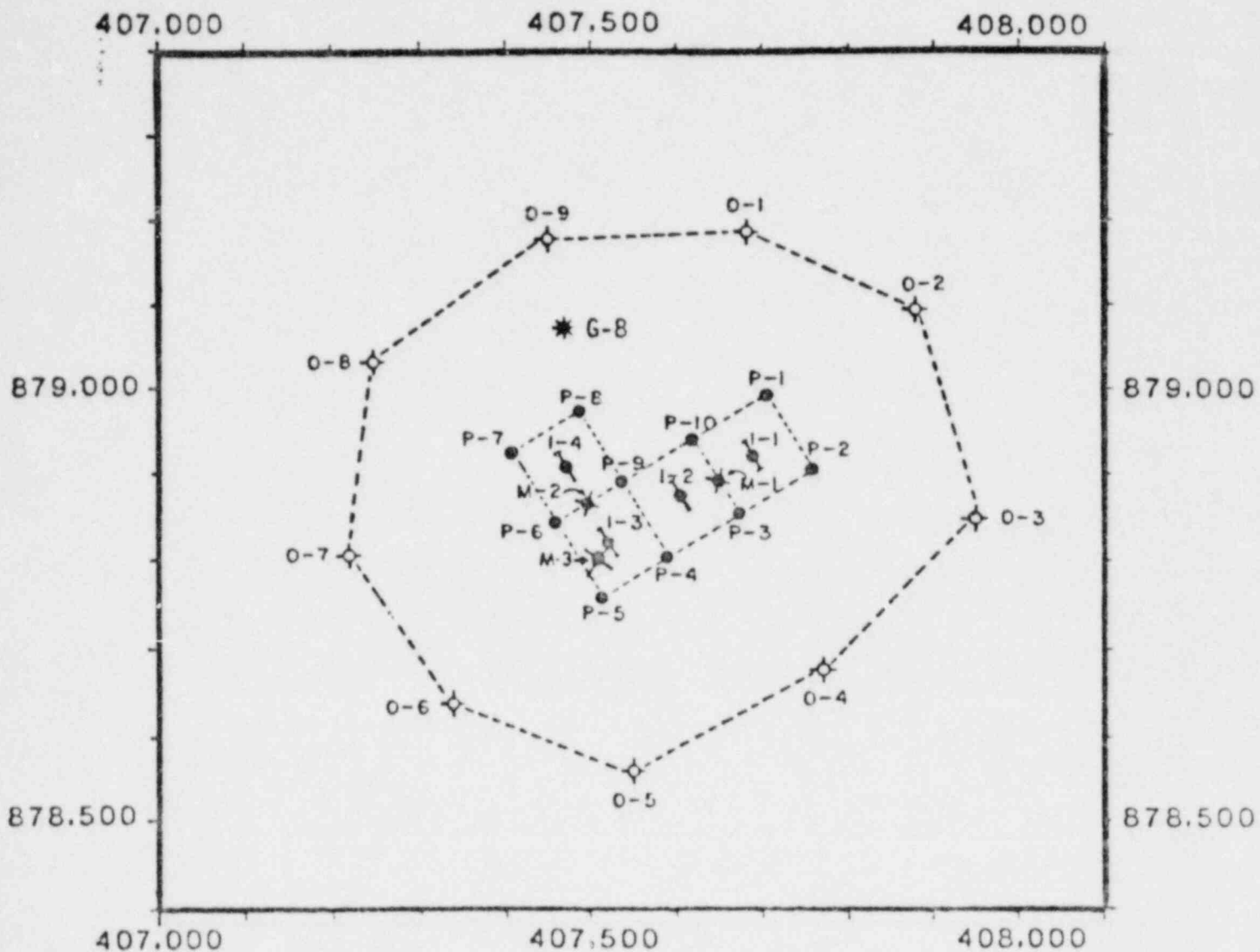
cc: Mr. Glen D. Brown, Region IV Office of Inspection and Enforcement
J.S. Sheffield
W.J. Taylor
K.M. LeVier
L.J. Goetz
J.E. Gilchrist

10229

Add'l info

FIGURE 1

SOLUTION MINE WELL PATTERN
HIGHLAND R&D PROGRAM
CONVERSE COUNTY, WYOMING



LEGEND

- PRODUCTION WELL
- ⌋ INJECTION WELL
- ⊠ MONITOR WELL

EXXON MINERALS COMPANY
 HIGHLAND URANIUM OPEFATIONS
 SOLUTION MINE

Analyses of Samples from Wells E-0-6, E-0-7, E-0-8 and E-0-9

Date Sampled	EXCURSION INDICATORS											
	Analyses, mg/l											
	Chloride				Bicarbonate				Sulfate			
	E-0-6	E-0-7	E-0-8	E-0-9	E-0-6	E-0-7	E-0-8	E-0-9	E-0-6	E-0-7	E-0-8	E-0-9
UCL	28	90	20	128	227	240	252	238	177	112	94	106
6/8/81	8	95	15	9	190	216	211	171	157	119	102	109
6/15/81	9	95	14	15	184	221	212	159	155	116	99	109
6/22/81	8	84	13	11	189	207	214	170	150	110	98	101
6/28/81	11	90	16	13	188	204	216	170	154	112	100	107
7/5/81	15	91	16	**	185	228	215	**	161	112	104	**

Date Sampled	Analyses, mg/l							
	Carbonate				Uranium			
	E-0-6	E-0-7	E-0-8	E-0-9	E-0-6	E-0-7	E-0-8	E-0-9
UCL	44	44	44	68	5	5	5	5
6/8/81	<1	<1	<1	<1	<1	<1	<1	<1
6/15/81	<1	<1	<1	<1	<1	<1	<1	<1
6/22/81	<1	<1	<1	<1	<1	<1	<1	<1
6/28/81	<1	<1	<1	<1	<1	<1	<1	<1
7/5/81	<1	<1	<1	**	<1	<1	<1	**

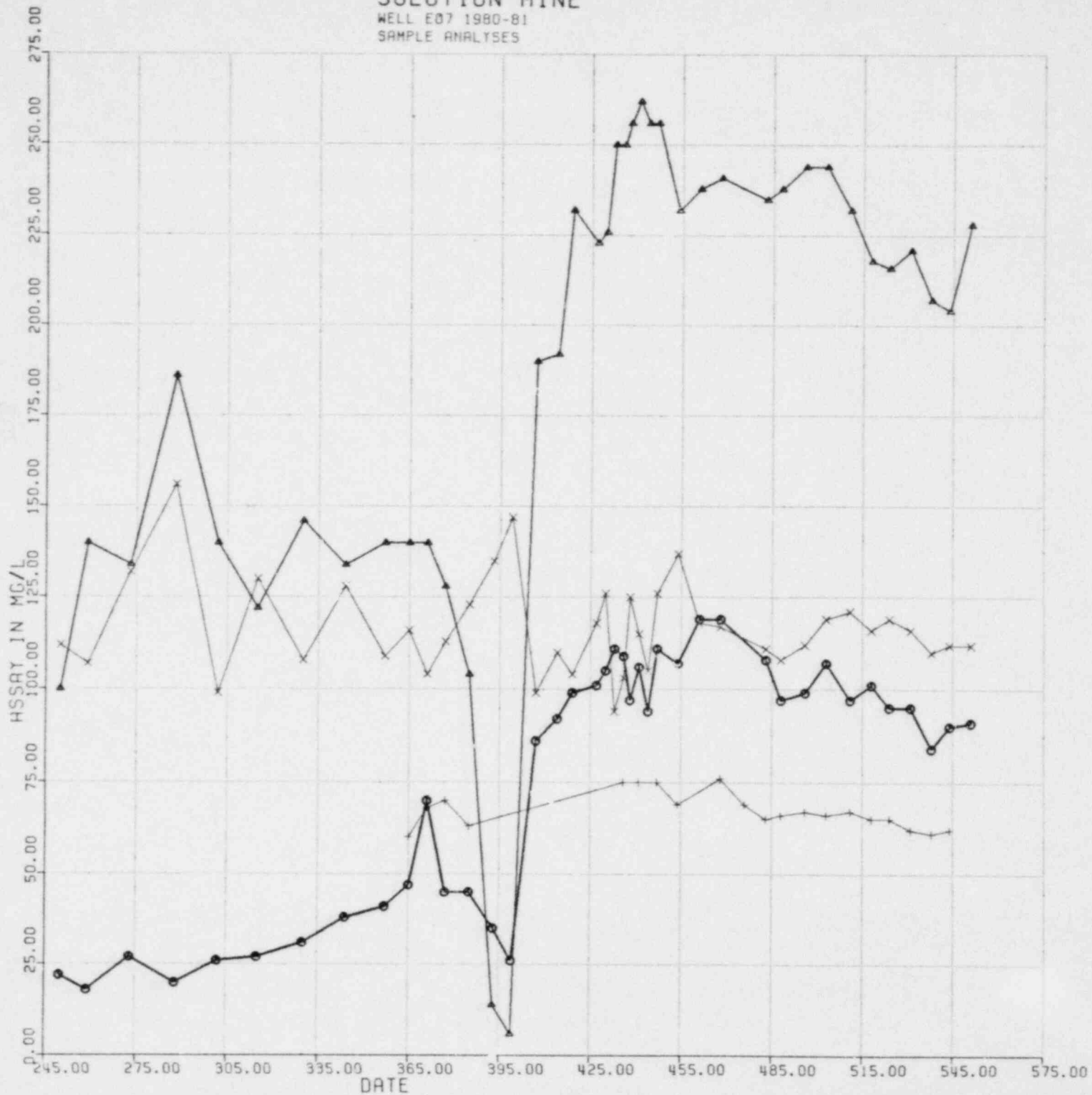
Date Sampled	SUPPLEMENTARY INDICATORS															
	Analyses, mg/l															
	Sodium				Arsenic				Selenium				pH			
E-0-6	E-0-7	E-0-8	E-0-9	E-0-6	E-0-7	E-0-8	E-0-9	E-0-6	E-0-7	E-0-8	E-0-9	E-0-6	E-0-7	E-0-8	E-0-9	
6/8/81	53	65	47	48	<.002	.002	<.002	<.002	<.002	<.002	.004	.003	7.7	7.5	7.7	6.9
6/15/81	52	62	46	48	<.002	.003	<.002	<.002	<.002	<.002	.002	.005	7.4	7.5	7.6	7.0
6/22/81	52	61	46	47	<.002	.002	<.002	<.002	<.002	<.002	.004	.004	7.7	7.5	7.6	7.0
6/28/81	53	62	47	48	<.002	.002	<.002	<.002	<.002	<.002	.003	.004	7.6	7.5	7.5	6.8
7/5/81	*	*	*	**	*	*	*	**	*	*	*	**	7.4	7.4	7.5	**

* At the time of this report these analyses were not available.
 ** E-0-9 was eliminated from this sampling program effective 7/5/81.

SOLUTION MINE

WELL E07 1980-81

SAMPLE ANALYSES



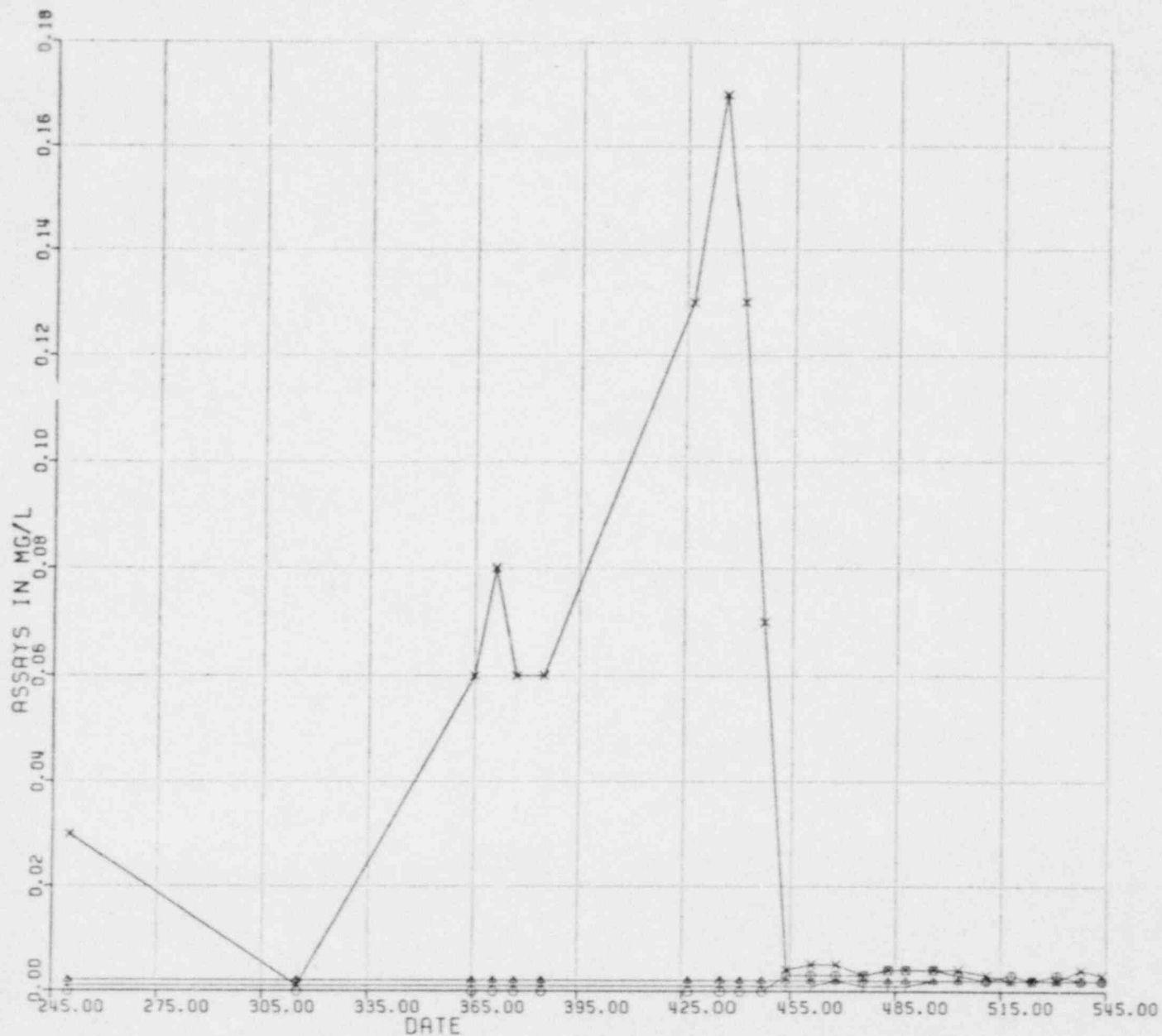
LEGEND:
 ○ CHLORIDE IN MG/L
 ▲ BICARBONATE IN MG/L
 + SODIUM IN MG/L
 × SULFATE IN MG/L

EXXON MINERALS COMPANY

HIGHLAND URANIUM OPERATIONS

SOLUTION MINE

WELL E07&E08 1980-81
SAMPLE ANALYSES



LEGEND:

- E07 ARSENIC IN MG/L
- ▲ E07 SELENIUM IN MG/L
- ⊕ E08 ARSENIC IN MG/L
- × E08 SELENIUM IN MG/L

SEPT/OCT OCT/NOV NOV/DEC DECI/JAN JAN/FEB FEB/MAR MARI/APR APR/MAY MAY/JUN JUNE/JUL

JULY 8, 1981

TRENT ROBBERTSON

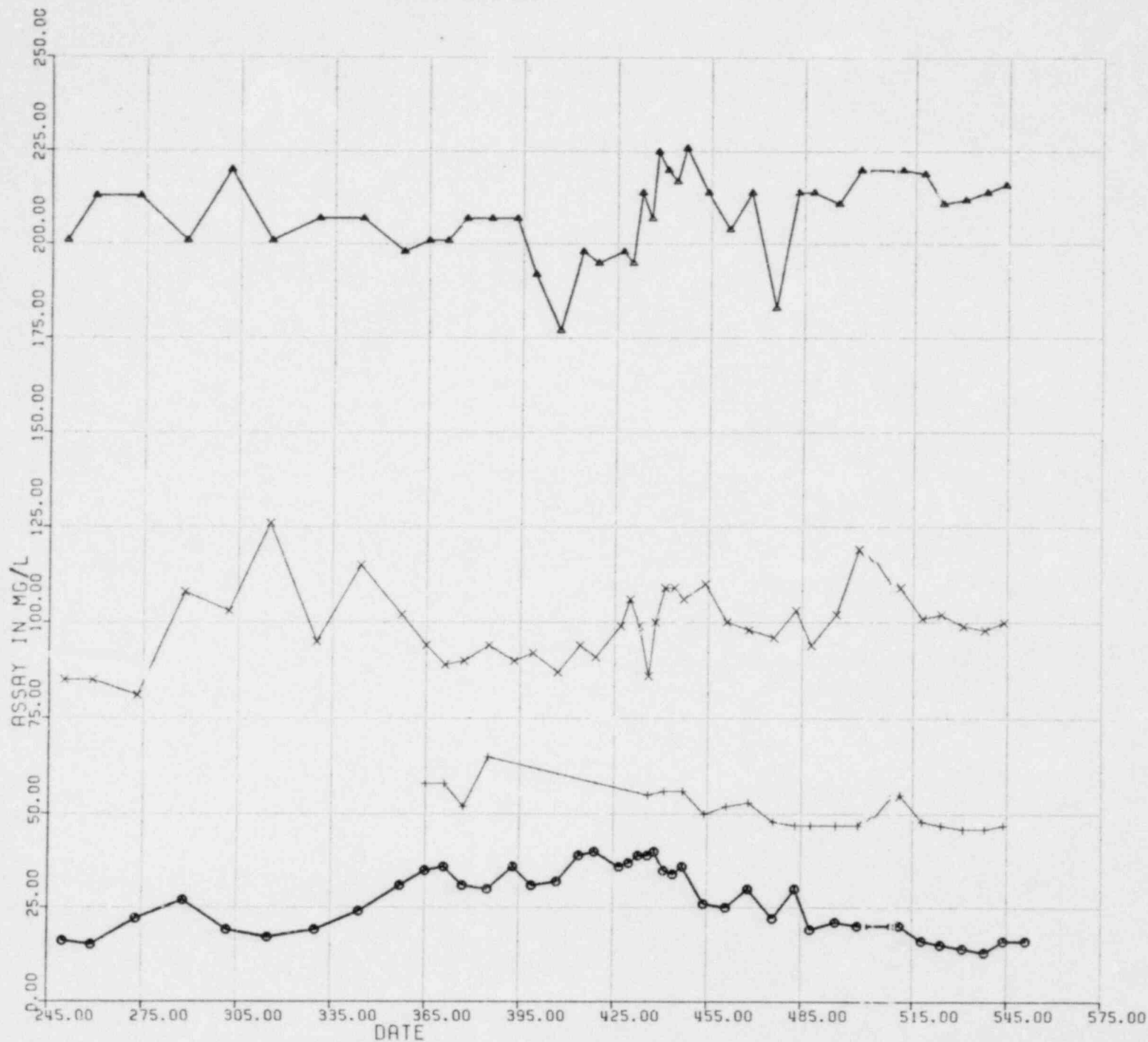
EXXON MINERALS COMPANY

HIGHLAND URANIUM OPERATIONS

SOLUTION MINE

WELL E08 1980-81

SAMPLE ANALYSES



LEGEND:

- CHLORIDE IN MG/L
- △ BICARBONATE IN MG/L
- ✕ SODIUM IN MG/L
- * SULFATE IN MG/L