

OGLE PETROLEUM INC.

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September 15, 1980

PLEASE DIRECT REPLY TO:

150 North Nichols Avenue
Casper, Wyoming 82601
(307) 266-6456

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

RE: Commercial Source Material
License Application, Docket
No. 40-8745

Dear Mr. Rothfleisch:


Enclosed are additional data concerning surface water quality in the vicinity of Ogle Petroleum Inc.'s (OPI) Bison Basin Project. This information is being supplied in response to questions, comments, and requests for additional information from the NRC staff which were received by OPI on December 4, 1979 (comment number 33).

The enclosed table shows the water quality data for each of the five surface water sampling points. A map is also enclosed which shows the locations of the sampling points.

If you have any questions, please contact me at our Casper office.

Sincerely,

OGLE PETROLEUM INC.


Glenn J. Catchpole
Project Manager

GJC . .

Enclosures

CC: Dr. Minton Kelly, ORNL, w/Enclosures (5 copies)
Document Management Branch w/Enclosure (1 copy) ✓

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DENVER

TUCSON

8609190 '392

POOR ORIGINAL

SURFACE WATER QUALITY

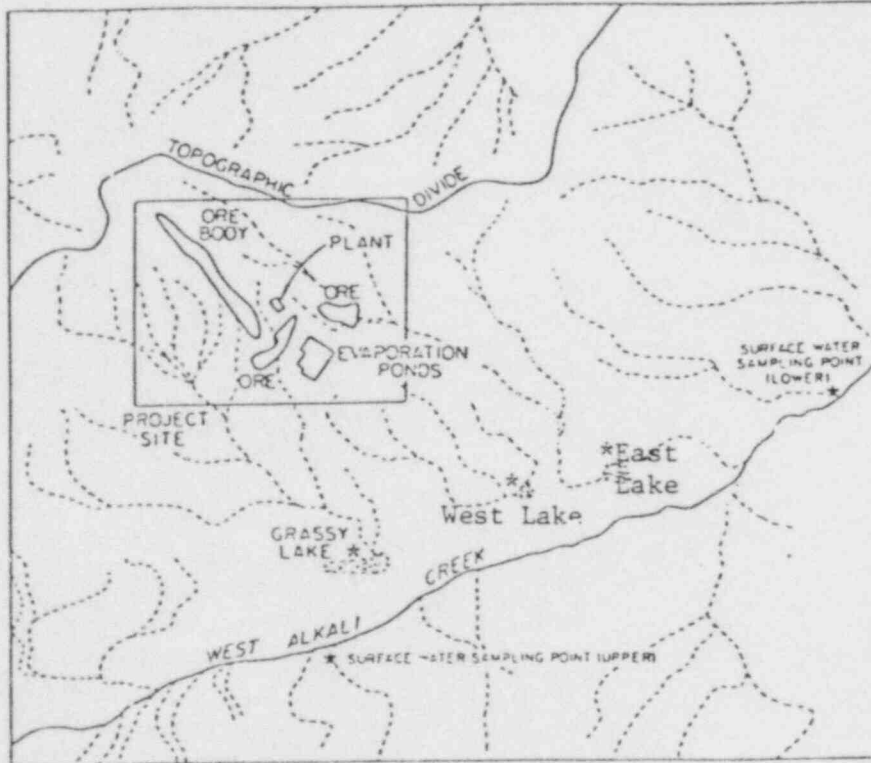
PARAMETER	WEST ALKALI CREEK - UPPER		WEST ALKALI CREEK - LOWER		GRASSY LAKE		WEST LAKE		EAST LAKE	
	05-18-79	04-30-80	05-07-80	04-30-80	05-07-80	04-30-80	05-07-80	04-30-80	05-07-80	04-30-80
Total Suspended Solids	85	43.0	108	110	109.2	24.4	31	9.0	346	41.0
Total Dissolved Solids	890	1106	836	1178	228	198	36	36	72	57
Specific Conductivity (micromhos/cm)	900	1550	1150	1650	345	300	60	48	65	68
pH (pH units)	9.5	8.8	8.5	9.0	7.7	7.6	7.5	7.4	7.3	6.7
Sodium	198	360	252	382	17	16	3	2	4	2
Potassium	18	38	23	39	7	8	3	3	3	4
Calcium	13	14	18	14	36	31	4	3	5	9
Magnesium	2	13	8	13	10	9	2	2	3	3
Chloride	58	104	79	110	6	4	3	3	4	4
Sulfate	60	176	156	207	101	105	0	0	0	6
Carbonate	14	48	14	66	0	0	0	0	0	0
Bicarbonate	110	490	268	573	81	63	34	37	42	51
Aluminum	1.5	1.1	2.15	0.60	0.8	0.10	0.2	0.23	1.0	0.20
Ammonia (as N)	-0.1	0.11	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
Arsenic	0.04	0.04	0.06	0.08	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Boron	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Barium	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
Cadmium	-0.002	-0.01	-0.002	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Chromium	-0.01	-0.02	-0.01	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
Copper	0.14	0.03	0.08	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Fluoride	0.71	0.66	0.81	0.62	0.06	0.06	0.05	0.05	0.05	0.06
Iron	1.90	1.11	3.12	0.84	0.6	0.2	0.11	0.2	0.52	0.1
Lead	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
Manganese	0.11	0.06	0.37	0.05	0.09	0.01	0.01	-0.01	0.06	-0.01
Mercury	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
Nickel	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04
Nitrate (as N)	2.4	1.8	3.0	1.6	0.01	0.5	0.01	2.6	0.01	1.6
Nitrite (as N)	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Selenium	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Zinc	0.37	-0.01	0.17	-0.01	-0.01	-0.01	0.10	-0.01	-0.01	-0.01
Molybdenum	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
Vanadium	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
Uranium (as U ₃ O ₈)	0.030	0.044	0.038	0.045	0.011	-0.001	0.022	-0.001	0.026	-0.001
Radium 226 (pCi/l)	1.75±.58	0.61±0.24	0.60±0.33	0.51±0.18	2.1±0.58	0.40±0.14	0.32±0.50	0.60±0.28	0.54±0.44	0.95±0.30
Thorium 230 (pCi/l)	10.0±8.6	22.1±2.07	5.9±2.6	6.2±2.6	15.5±4.3	4.72±1.65	21.1±5.0	3.92±1.88	24.2±4.4	7.29±2.73
Dissolved Oxygen	7.0	8.5	6.9	6.6	4.8	7.0	6.4	6.7	6.2	7.0
Turbidity (JTUs)	20	12	38	34	180	3.6	8	4.4	96	14

NOTE: - means not detected at level indicated.

Ogle Petroleum Inc.

SURFACE WATER SAMPLING POINT LOCATIONS

ES-5093



Sampling Point

Location

Grassy Lake

Section 31, T27N R96W

West Lake

Section 31, T27N R96W

East Lake

Section 32, T27N R96W

W. Alkali Creek-Upper

Section 01, T26N R97W

W. Alkali Creek-Lower

Section 28, T27N R96W