

JUN 17 1986

Michigan Department of
Public Health
ATTN: George W. Bruchman
Chief, Division of
Radiological Health
3500 North Logan
Lansing, MI 48909

Gentlemen:

Attached are the results of samples collected at the MDNR and Waste Management, Inc. (WMI-formerly SCA) sites in Kawkawlin, Michigan, by M. C. Schumacher and K. E. Andre of this office on November 5, 1985. Similar samples were collected at the same time by Chad McIntosh of your office and the representatives of MDNR and WMI. The sampling included a well (MW-40) not on our original list (Attachment 1). It also included samples from a well and a pond on private properties east of the site, collected with the assistance of Edward Golson of the Bay County Health Department. The well was believed to be the only nearby private well available at the time.

The analyses, performed by the Radiological Environmental Sciences Laboratory (RESL) in Idaho Falls, Idaho, consisted of gross alpha-beta activity and a gamma scan of each sample. Four samples showing gross alpha concentration greater than 5 pCi/liter were filtered and both fractions were analyzed for isotopic thorium. The combined thorium results for both fractions are shown in Attachment 3. Except for one sample indicating thallium-208, actinium-208 is the only isotope in the thorium chain indicated in the gamma scan. The apparent positive gamma values seen in four samples are inconsistent with the gross alpha and beta results and are regarded as suspect. Nevertheless, we have requested specific analyses of the samples for radium and will forward the results to you when they are completed. Radium analysis was also requested for SCA well INS-2 which showed elevated gross beta. Overall, the results appear consistent with the preliminary results from your samples as described by Mr. McIntosh in a telephone conversation on February 18, 1986.

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Public Health

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In accordance with our June 25, 1985, agreement, we plan to collect a second round of samples when Waste Management, Inc. and MDNR sample in November 1986. Please feel free to contact me or Martin Schumacher (312 790-5514) who is the cognizant person on my staff for further discussion of this matter.

Sincerely,

Original signed by W.D. Shafer

W. D. Shafer, Chief
Emergency Preparedness and
Radiological Protection Branch

Attachments:

1. Description of Sampling Locations
2. Map of Sampling Locations
3. 11/5/85 Sampling Results

cc w/attachments:

E. Golson, Bay County
Dept. of Health
D. Schultz, MI Dept of
Natural Resources
W. T. Crow, FC, NMSS
D. A. Cool, FC, NMSS
R. A. Lickus, RIII
B. A. Berson, RIII

RII

Schumacher/as
06/17/86

RIII

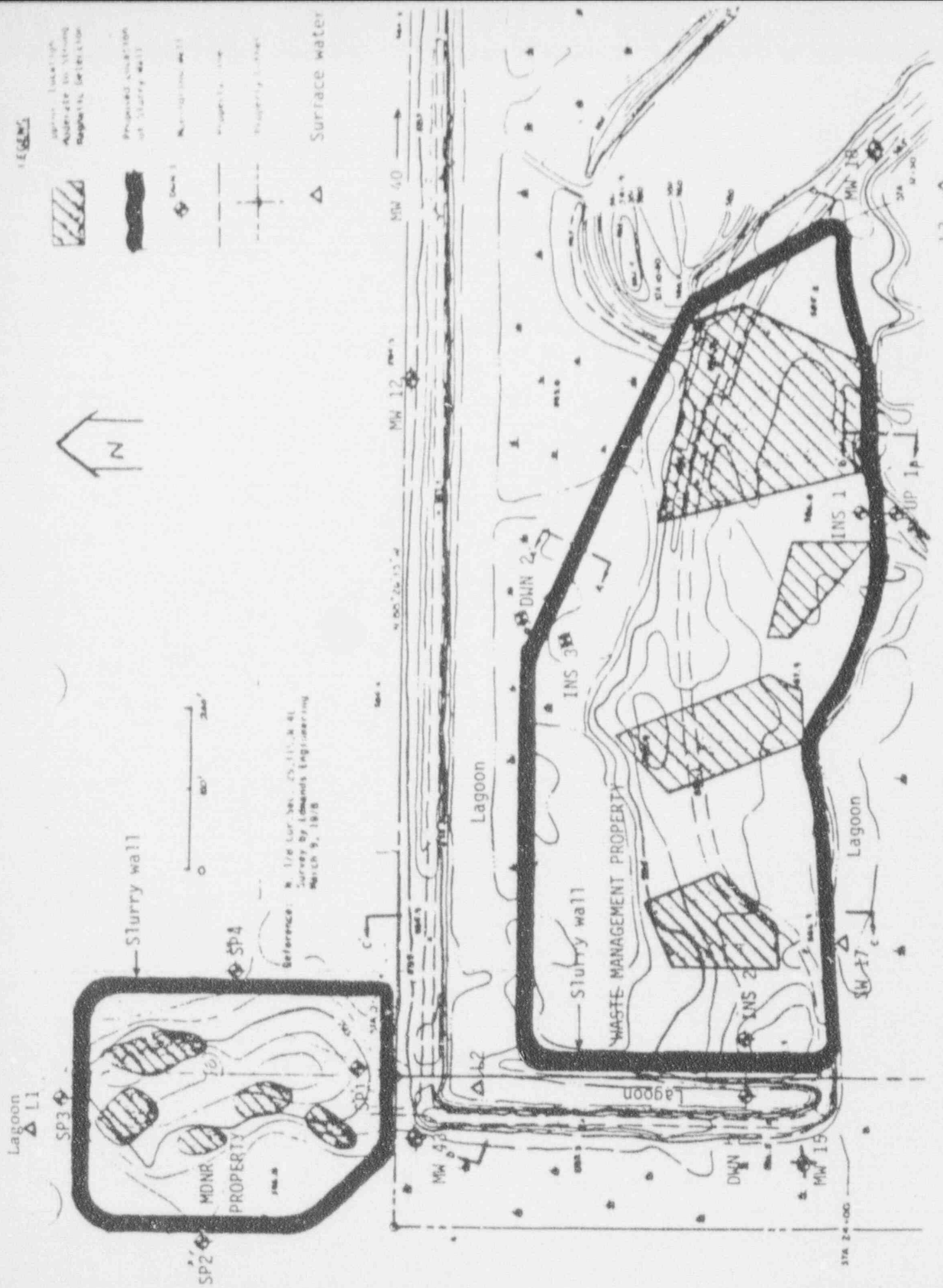
Shafer
06/17/86

ATTACHMENT 1

Description of Water Sampling Locations

<u>Location*</u>	<u>Description</u>
SF-1	Well inside DNR slurry wall
SF-2	Well outside (west) DNR slurry wall
SP-3	Well outside (north) DNR slurry wall
SF-4	Well outside (east) DNR slurry wall
Mn-43	Well between DNR and SCA slurry walls
Mn 12	Well near boundary between DNR and SCA sites
INS-1	Well inside SCA slurry wall (south)
UP-1	Well outside SCA slurry wall (south)
INS-2	Well inside SCA slurry wall (west)
DwN-3	Well outside SCA slurry wall (west)
INS-3	Well inside SCA slurry wall (north)
DwN-2	Well outside SCA slurry wall (north)
Mn-15	Well outside and west of SCA slurry wall
Mn-18	Well outside and east of SCA slurry wall
L1	Surface water from lagoon north of DNR slurry wall
L2	Surface water from lagoon between DNR and SCA slurry walls
SW-17	Surface water from lagoon south of SCA slurry wall
L3	Surface water from lagoon near Beaver Road

* Location designations except L1, L2, and L3 are those used by WMI and DNR.



ATTACHMENT 2. SELECTED MONITORING LOCATIONS

WASTE MANAGEMENT MONITORING SITES VALLEYVIEW, MT

L3 Δ at Beaver Rd.

ATTACHMENT 3
WASTE MANAGEMENT/MDNR SITE KAWKAWLIN, MI
WATER SAMPLES OF 11/5/85
RESULTS IN pCi/LITER: UNCERTAINTY ONE STANDARD DEVIATION

LOCATION	SAMPLE NO.	GROSS ACTIVITY		ISOTOPIC THORIUM			GAMMA SCAN	
		Alpha	Beta	Th 232	Th 228	Th 230	Ac 228	Tl 208
SCA Well INS-2	85-536	2±1	340±40				20±90	
SCA Well DWN-3	85-537	1.3±0.9	0±20				40±90	
Surface Water L2	85-538	1.1±0.4	17±13				20±90	220±60
SCA Well DWN-2	85-539	4.7±1.3	30±20				70±70	
SCA Well INS-3	85-540	9±2	30±30	.08±.04	.26±.07	-.28±.10	70±70	
Surface Water SW-17	85-541	.7±.3	14±7				-20±70	
SCA Well UP-1	85-542	2±1	12±14				80±80	
SCA Well INS-1	85-543	1.8±0.7	27±14				90±70	
SCA Well MW-18	85-544	.6±.4	33±13				260±90	
MDNR MW SP-1	85-545	SAMPLE NOT AVAILABLE						
MDNR Well SP-2	85-546	3.4±0.9	17±13				-20±90	
MDNR Well SP-3	85-547	7±1	21±13	.11±.04	.13±.08	-.27±.12	40±60	
MDNR Well SP-4	85-548	15±2	13±13	.12±.04	.17±.07	-.27±.12	90±70	
Surface Water L1	85-549	.6±.2	21±11				20±50	
SCA Well MW-40	85-550	10±3	12±66	0±.03	.04±.06	-.35±.11	-20±100	
SCA Well MW-12	85-551	.2±.5	14±14				170±80	
SCA Well MW-43	85-552	4.2±1.4	14±3				-130±90	
SCA Well MW-15	85-553	1.1±0.7	30±20				20±90	
Surface Water L3	85-554	1.1±0.3	4±12				100±70	
Gilman, Pond	85-555	.28±.14	12±11				210±90	
P. Schubert, Well	85-556	0.2±1.1	15±15				90±80	