

3502

**REMOVAL SITE EVALUATION TRAILERS
EAST OF T-39 (EPA/PARSONS OFFICE
TRAILERS) MAY 1992**

05-01-1992

DOE/WEMCO

25

RSE

REMOVAL SITE EVALUATION

TRAILERS EAST OF T-39
(EPA/PARSONS OFFICE TRAILERS)

Fernald Office

U. S. Department of Energy

May 1992

INTRODUCTION

This project is developed in response to the need to provide office space for WEMCO personnel as part of the overall office space requirement outlined by the Facilities Engineering Section.

The EPA/Parsons Office Trailers project was to originally install two (2) duplex office trailers south of the Lab for the EPA and Ralph E. Parsons representatives. An Action Memorandum has already been made for these duplexes which indicated that these projects do not constitute a removal action.

This RSE addresses the installation of two (2) additional duplex office trailers to be located east of T-39, with water, sewage, electrical power, and telecommunications facilities. The additional duplexes will be located east of T-39 as indicated on the attached drawing #44H-5500-G-00106, and will provide additional office space for WEMCO personnel as part of the overall office space requirement.

Soil must be excavated for most utilities. The soil will be handled according to Site Standard Operating Procedure SSOP-0044I.

This RSE has been completed by the DOE under authorities delegated by Executive Order 12580 under Section 104 of CERCLA and is consistent with Section 300.410 of the National Oil and Hazardous Substance Pollution Contingency Plan (NCP). This RSE has been completed to support the decision as to whether the EPA/Parsons Office Trailers project conditions warrant a removal action.

SOURCE TERM

Site characterization, historical records and process knowledge of the project work area did not reveal known prior use of the project area. There is no data to support that any production related operations occurred in this specific area, including the storage, treatment, or disposal of materials which may have contributed to the release of hazardous substances to the environment. However, above background levels of total uranium detected in this area were likely the result of air borne disposition of contaminants from past production activities. The site characterization data presented herein supports this position.

As part of the site characterization activities, surface and subsurface soil sampling was performed along the proposed excavation areas (Figure 1). The location, depth, and analytical results of these samples are provided in Table 1.

TABLE 1

EPA/Parsons Office Trailers Project Sampling Data							
Sample Point	Depth		Total Thorium pCi/gm	C A T	Total Uranium pCi/gm	C A T	COMMENT:
	S	ft					
1		2	<3.9	1	9.42	1	
2		2	<3.9	1	8.08	1	
3		1	<3.9	1	16.82	1	
3		2	<3.9	1	12.79	1	
3		3	<3.9	1	< 7.4	1	
4		1	<3.9	1	16.15	1	
4		2	<3.9	1	< 7.4	1	
4		3	<3.9	1	21.53	1	
5		1	<3.9	1	22.2	1	
5		3	<3.9	1	18.17	1	
6		1	4.3	1	38.36	2	
6		2	<3.9	1	95.57	2	
6		3	<3.9	1	96.91	2	
7		1	<3.9	1	28.26	1	
8		1	<3.9	1	26.25	1	TCLP tests taken
8		2	3.9	1	20.86	1	
8		3	<3.9	1	8.75	1	
9		1	<3.9	1	85.47	2	TCLP tests taken
9		2	<3.9	1	49.12	2	
10		1	16.5	1	535.03	E	
10		2	<3.9	1	60.57	2	
10		3	4.5	1	12.11	1	
11		1	<3.9	1	20.19	1	

S - Surface Sample

E - Exceed CAT. 2

As indicated by these analytical results, one sample in the planned excavation area exceeded the category 2 level as defined in SSOP-044I. This areas will be dispositioned per the referenced procedure. Samples 8 and 9 were randomly selected for TCLP testing, the results are shown on pages 5-9 of this document. Figure 1 and Table 1 identify the location at which the samples were taken, the depths of the samples, and their respective analytical results.

Additional sample results taken at points indicated are pending, but will be submitted in addendum to this RSE when received.

Site Standard Operating Procedure SSOP-0044I will adequately address the handling and disposal of these materials.

EVALUATION OF THE MAGNITUDE OF THE POTENTIAL THREAT

The installation of the trailers east of T-39 will excavate soil containing elevated concentrations of hazardous substances. Precautions, such as monitoring of soils, will be employed to ensure that this action will not result in the release or a substantial threat of release of hazardous substances into the environment. All construction activities will also be governed by site Health and Safety guidelines.

Characterization sampling and analysis will be conducted during preconstruction, construction, and post-construction activities.

There is no reason to expect toxic substances in the area of construction; however, as a precaution, TCLP samples were taken. The results of these samples are pending and will support RCRA determination.

ASSESSMENT OF THE NEED FOR REMOVAL ACTION

Consistent with Section 40 CFR of the National Contingency Plan (NCP), the Department of Energy shall determine the appropriateness of a removal action. Eight factors to be considered in this determination are listed in the NCP, 40 CFR 300.415 (b) (2). The following apply specifically to the concentration of total uranium occurring in the soil to be excavated:

40 CFR 300.415 (b)(2)(iv)

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate.

Based on the sampling data presented herein, one of the eight factors listed in the NCP may be applicable to the EPA/Parsons Office Trailers project.

APPROPRIATENESS OF A RESPONSE

If it is determined that a response action is appropriate due to the levels of contamination found in the soil, a removal action may be required to address the existing situation.

REMOVAL SITE EVALUATION EPA/PARSONS OFFICE TRAILERS

If a planning period of less than six months exists prior to initiation of a response action, DOE will issue an Action Memorandum. The Action Memorandum will describe the selected response and provide supporting documentation for the decision.

If it is determined that there is a planning period greater than six months before a response is initiated, DOE will issue an Engineering Evaluation/Cost Analysis (EE/CA) Approval Memorandum. This memorandum is to be used to document the threat of public health and the environment and to evaluate viable alternative response actions. It will also serve as a decision document to be included in the Administrative Record.

Site characterization activities completed to support the EPA/Parsons Office Trailers project indicate that minimal hazardous substances are present at the environment at the proposed project site. Site Standard Operating Procedure SSOP-0044I and IH&S-IH-03 adequately address concerns associated with potential releases. Therefore, there are sufficient controls available to mitigate the threat of contaminant release to the environment associated with this project and a Removal Action is not required.

WEMCO PO: 413910
Release No.: 1001
Date: December 24, 1991

ANALYTICAL RESULTS FOR SAMPLES

	SP-9 91-131-3307	SP-5 91-131-3305	SP-15 91131 3303	SP-21-0 91131 3307
WEMCO ID:	911202-040	911202-041	911202-042	911202-043
CNLSI No.:	913411	913412	913413	913414
Original Matrix:	Solid	Solid	Solid	Solid
Units:	ppm	ppm	ppm	ppm

Toxicity Characteristics Leaching Procedure

Arsenic	<0.03	<0.03	<0.03	<0.03
Barium	0.37	0.47	0.36	0.49
Cadmium	<0.15	<0.15	<0.15	<0.15
Chromium	<2.37	<2.37	<2.37	<2.37
Lead	<0.75	<0.75	<0.75	<0.75
Mercury	<0.003	<0.003	<0.003	<0.003
Selenium	<0.02	<0.02	<0.02	<0.02
Silver	<0.50	<0.50	<0.50	<0.50

OK

OK

OK



SP-9



SP-8

WEMCO PO: 413910
 Release No.: 1001
 Date: December 24, 1991

ANALYTICAL RESULTS FOR SAMPLES

	SP 9-0 7/13/330	SP 8-0 7/13/330	SP 15 7/13/330	SP 21-0 7/13/330
WEMCO ID:	911202-040	911202-041	911202-042	911202-043
CNLSI NO.:	913411	913412	913413	913414
Original Matrix:	Solid	Solid	Solid	Solid
Units:	ppm	ppm	ppm	ppm

TCLP/ZHE - Volatile Organics:

Vinyl Chloride	<0.15	<0.15	<0.15	<0.15
1,1-Dichloroethylene	<0.12	<0.12	<0.12	<0.12
2-Butanone (MEK)	<0.25	<0.25	<0.25	<0.25
Chloroform	<0.12	<0.12	<0.12	<0.12
Carbon Tetrachloride	<0.15	<0.15	<0.15	<0.15
Benzene	<0.09	<0.09	<0.09	<0.09
1,2-Dichloroethane	<0.10	<0.10	<0.10	<0.10
Trichloroethylene	<0.22	<0.22	<0.22	<0.22
Chlorobenzene	<0.19	<0.19	<0.19	<0.19
Tetrachloroethylene	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<0.35	<0.35	<0.35	<0.35

Surrogates: (% Recovery)

1,2-Dichloroethane-d4	107	104	93	95
Toluene-d8	100	99	94	96
Bromofluorobenzene	97	99	98	106

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SP-9

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SP-8

WEMCO PO: 413910
 Release No.: 1001
 Date: December 24, 1991

ANALYTICAL RESULTS FOR SAMPLES

	SP-9-C 911313299	SP-8-C 911313295	SP-11-C 911313303	SP-21-C 911313307
WEMCO ID:	911202-040	911202-041	911202-042	911202-043
CNLSI NO.:	913411	913412	913413	913414
Original Matrix:	Solid	Solid	Solid	Solid
Units:	ppm	ppm	ppm	ppm

TCLP Semi-Volatile Organics:

Pyridine	<0.08	<0.08	<0.08	<0.08
o-Cresol	<0.04	<0.04	<0.04	<0.04
Hexachloroethane	<0.04	<0.04	<0.04	<0.04
m,p-Cresol	<0.04	<0.04	<0.04	<0.04
Nitrobenzene	<0.04	<0.04	<0.04	<0.04
Hexachlorobutadiene	<0.04	<0.04	<0.04	<0.04
2,4,6-Trichlorophenol	<0.04	<0.04	<0.04	<0.04
2,4,5-Trichlorophenol	<0.04	<0.04	<0.04	<0.04
2,4-Dinitrotoluene	<0.04	<0.04	<0.04	<0.04
Hexachlorobenzene	<0.04	<0.04	<0.04	<0.04
Pentachlorophenol	<0.04	<0.04	<0.04	<0.04

Surrogates: (% Recovery)

2-Fluorophenol	68	67	65	70
Phenol-d6	65	63	62	65
Nitrobenzene-d5	72	69	67	71
2-Fluorobiphenyl	79	79	77	83
2,4,6-Tribromophenol	109	122	106	114
Terphenyl-d14	77	75	73	79

↑
SP-9

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SP-8

WEMCO PO: 413910
 Release No.: 1001
 Date: December 24, 1991

ANALYTICAL RESULTS FOR SAMPLES

	SP-9-U 111313399	SP-8 911313295	SP-5 111313303	SP-21-U 911313307
WEMCO ID:	911202-040	911202-041	911202-042	911202-043
CNLSI NO.:	913411	913412	913413	913414
Original Matrix:	Solid	Solid	Solid	Solid
Units:	ppm	ppm	ppm	ppm
<u>TCLP Herbicides:</u>				
2,4-D	<0.001	<0.001	<0.001	<0.001
Silvex	<0.001	<0.001	<0.001	<0.001

Surrogate: (% Recovery)

Dichloroprop	81	81	112	88
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SP-9



SP-8

WEMCO PO: 413910
 Release No.: 1001
 Date: December 24, 1991

ANALYTICAL RESULTS FOR SAMPLES

	SP-9 911313249	SP-8 911313245	SP-5 911313305	SP-21-0 911313307
WEMCO ID:	911202-040	911202-041	911202-042	911202-043
CNLSI NO.:	913411	913412	913413	913414
Original Matrix:	Solid	Solid	Solid	Solid
Units:	ppm	ppm	ppm	ppm

TCLP Pesticides:

Endrin	<0.0004	<0.0004	<0.0004	<0.0004
Heptachlor	<0.0004	<0.0004	<0.0004	<0.0004
Heptachlor Epoxide	<0.0004	<0.0004	<0.0004	<0.0004
Lindane	<0.0004	<0.0004	<0.0004	<0.0004
Chlordane	<0.004	<0.004	<0.004	<0.004
Methoxychlor	<0.0004	<0.0004	<0.0004	<0.0004
Toxaphene	<0.02	<0.02	<0.02	<0.02

Surrogate: (% Recovery)

Tetrachloro-m-xylene	100	100	99	101
Dibutylchlorendate	49	44	48	24



SP-9



SP-8

FMPC
INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY
RADIOLOGICAL SURVEY REPORT

3502

Date: 10-29-91 LOCATION: SOUTH OF 1ST STREET RST: SCOTT ECKLER Page 1 of 4
 Time: 1630 LEVEL: 580
 REASON FOR SURVEY: ROUTINE SPECIAL REQUEST RWP INCIDENT

COMMENTS:
PRE CONSTRUCTION CHARACTERIZATION
FOR FIRE LINE CONSTRUCTION GOING
TO NEW TRAILER EAST OF T-39

FOLLOW-UP SURVEY ATTACHED YES NO
 SURVEY MAP ATTACHED YES NO

INSTRUMENTS				
MODEL	SERIAL NUMBER	CALIBRATION DATE	BKRD.	EFF.
302	77145	12-91	0	1.08
388	77080	4-92	80	1.21

ANALYZE FOR: ALPHA BETA-GAMMA OTHER

TYPE OF SURVEY: CONTAMINATION RADIATION OTHER

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr)				DPM ALPHA		DPM BETA-GAMMA	
			γ	B γ	γ	B γ	100 CM ²	PROBE	100 CM ²	PROBE
			CONTACT	CONTACT	3 FT.	3 FT.				
1		GROUND					ND		>1K	
2		↓							>1K	
3									>1K	
4									>1K	
5									>1K	
6									1K	
7									>1K	
8									>1K	
9									>1K	
10									1.5K	
11									1K	
12									1K	
13									2K	
14									1K	
15									1K	
16									1.5K	

NO.	DISTRIBUTION OF COPIES
1	Radiological Safety Technician Supervisor
2	Radiological Safety Engineer
3	Facility Supervisor

NOTIFICATION OF SURVEY RESULTS					
SUPERVISOR NOTIFIED	TIME	DATE	NOTIFIED BY	REVIEWED BY	DATE
				12	

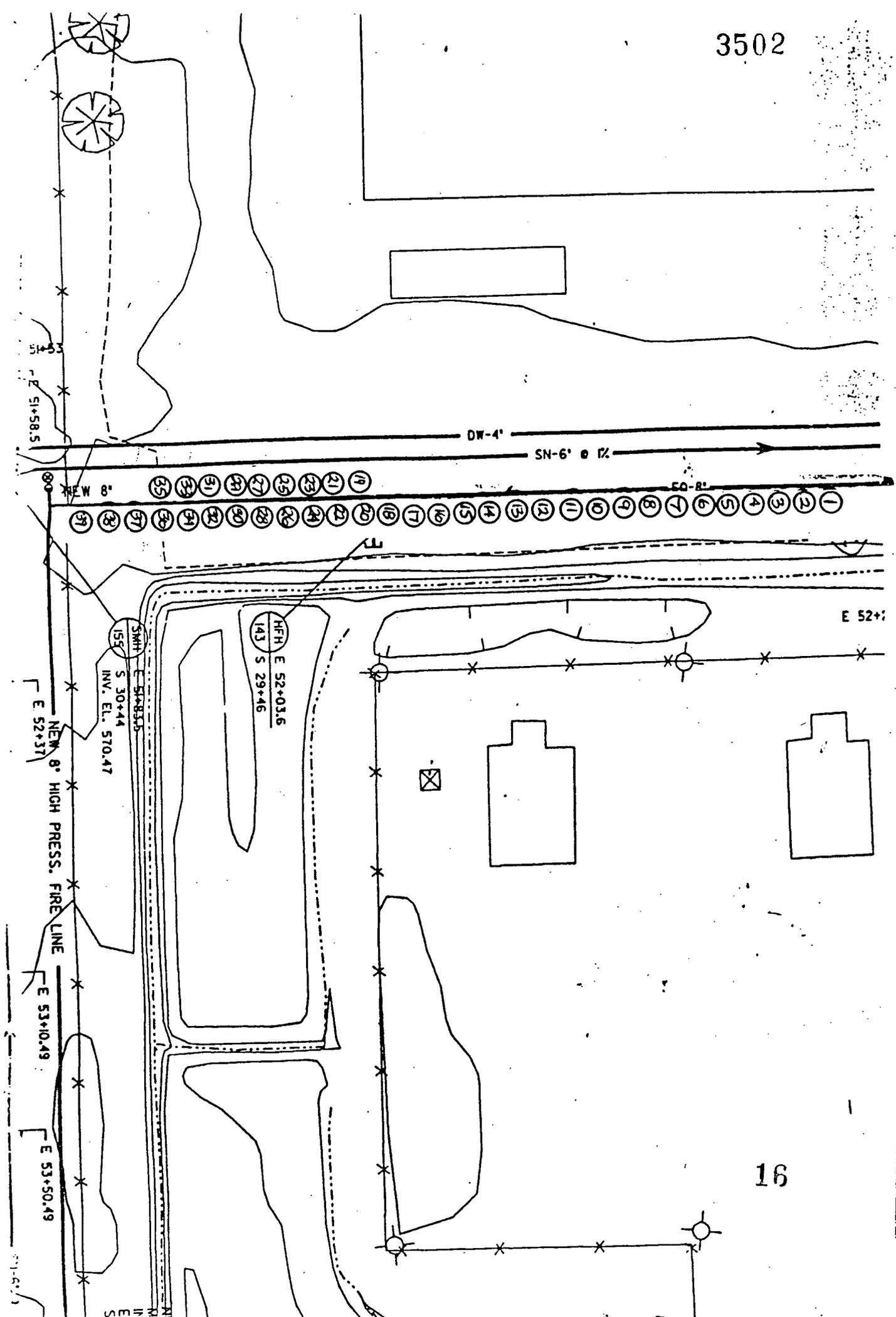
FMPC
INDUSTRIAL RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY
RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

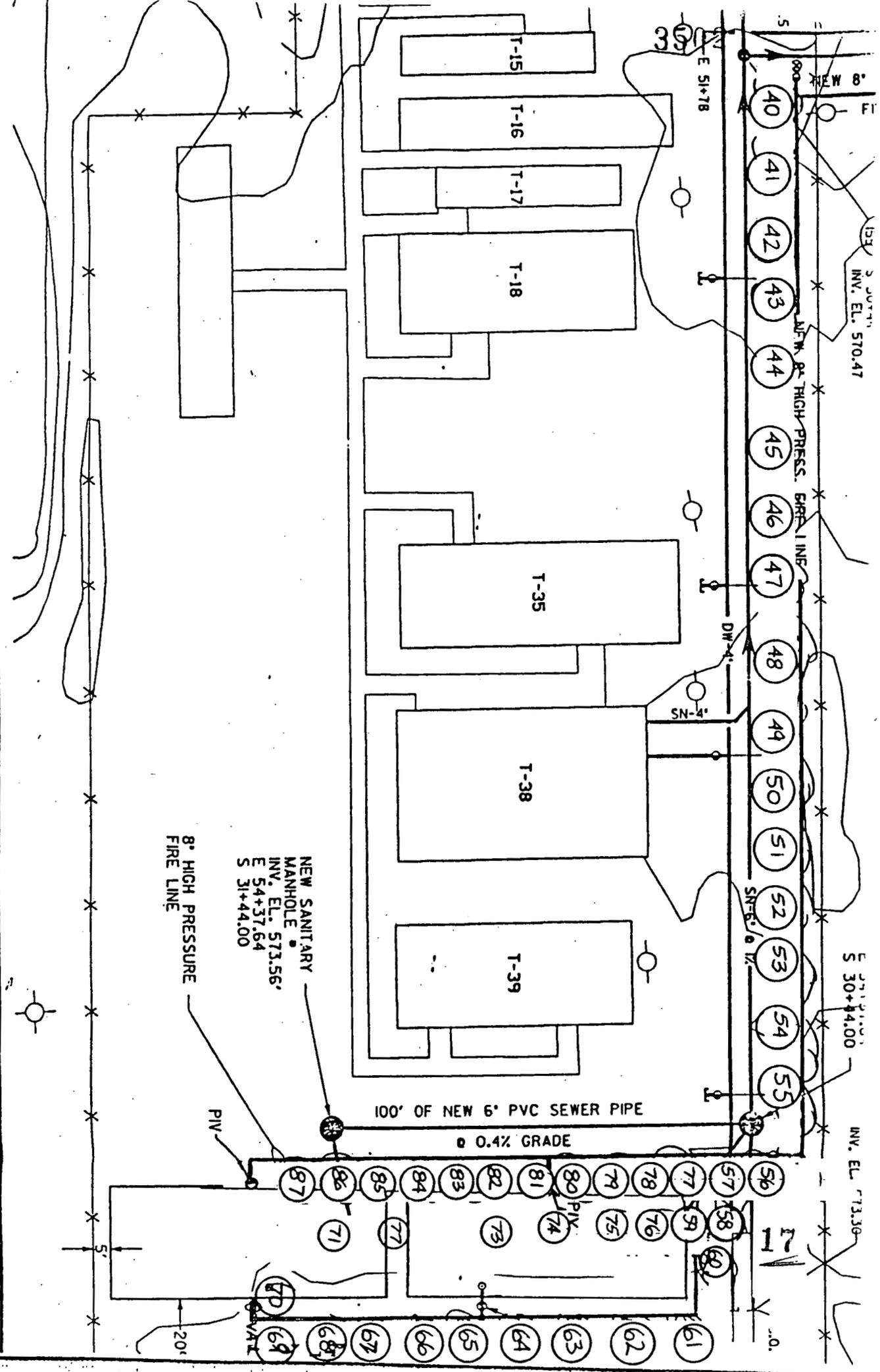
3508
2 of 4

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr)				DPM ALPHA		DPM BETA-GAMMA	
			γ	B/ γ	γ	B/ γ	100 CM ²	PROBE	100 CM ²	PROBE
			CONTACT	CONTACT	3 FT.	3 FT.				
17		GROUND							ND	1.5K
18										2.5K
19										6K
20										5K
21										5K
22										7K
23										2K
24										3K
25										2K
26										1.5K
27										1K
28										2K
29										1.5K
30										2K
31										1.5K
32										10K
33										3K
34										8K
35										2K
36										1.5K
37										<1K
38										<1K
39										<1K
40										<1K
41										<1K
42								13		<1K
43										<1K

RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr)				DPM ALPHA		DPM BETA-GAMMA		
			γ	β/γ	γ	β/γ	100 CM ²	PROBE	100 CM ²	PROB	
			CONTACT	CONTACT	3 FT.	3 FT.					
44		GROUND									<11
45											<11
46											<11
47											<11
48											<11
49											<11
50											<11
51											<11
52											<11
53											<11
54											<11
55											<11
56											<11
57											<11
58											<11
59											<11
60											<11
61											<11
62											<11
63											<11
64											<11
65											<11
66											<11
67											<11
68											<11
69										14	<11
70											<11





DATE	DESCRIPTION

NOTE:
WEMCO C.A.D.
DRAWING NOT

UNITS SHOWN	INCHES
TOLERANCES ARE	AS SHOWN
FRACTIONS	1/8"
ANGLES	9° - 30'

APPROVALS	
CHEMICAL	L.R.S. & T.
CIVIL & STR.	MAINTENANCE
ELECTRICAL	NU. SAFETY
ENGINEER	O.A.
INSTRUMENT	PRODUCTION

WESTINGHOUSE
MANAGE
FE