BECHTEL NATIONAL INC.

CLEAN II TRANSMITTAL/DELIVERABLE RECEIPT

Contract No. N-68711-92-D-4670 **Document Control No.:** CTO-0142/0137

File Code: 0208

TO: Contracting Officer
Naval Facilities Engineering Command
Southwest Division
Mr. Richard Selby, Code 57CS1.RS
Building 127, Room 112
1220 Pacific Highway
San Diego, CA 92132-5190

DATE: December 12, 1997
CTO #: 142
LOCATION: MCAS El Toro

FROM: Bonnie Kown for
D. J. Tedaldi, Ph.D., P.E., Project Manager

DESCRIPTION: Meeting Minutes, Site 24 Pilot Test Update - DTD November 12, 1997

TYPE: ____ Contract Deliverable (Cost) ____ CTO Deliverable (Technical) X Other

VERSION: NA REVISION #: ____

ADMIN RECORD: Yes X No ____ Category ____ Confidential ____
(PM to Identify)

SCHEDULED DELIVERY DATE: 12/12/97 ACTUAL DELIVERY DATE: 12/12/97

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MEETING MINUTES

Meeting Subject: Site 24 Pilot Test Update	**Meeting Date:** November 12, 1997 **Meeting Time:** 10:00 AM **Meeting Place:** Conference Call **Meeting Notes Prepared By:** Patrick Brooks

Attendees: (*Part Time)

Navy	Bechtel	Other
	Pat Brooks, CTOL	Glenn Kistner, U.S. EPA
	Tim Latas, Field Manager	Herb Levine, U.S. EPA
	Dante Tedaldi, PM	Tayseer Mahmoud, DTSC
		Larry Vitale, RWQCB

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Pat Brooks reviewed the field work that had been accomplished since the last Site 24 Update meeting. According to group consensus at the November 5 meeting, the vacuum-enhanced groundwater extraction rate at well 24EX3 was increased to 20 gallons per minute on November 5. However, the vacuum-enhanced test was shut down on November 10 because power fluctuations at the Station caused excessive loading of the vacuum motor. The SVE system was shut down to protect the motor. At that time, the groundwater extraction rate was reduced from 20 gallons per minute (gpm) to 15 gpm. Power fluctuations have started to stabilize and if the trend continues, the pumping rate will be increased to 20 gallons per minute with an applied vacuum of 40-inches this afternoon. The drawdown curve for 24EX3 shows that drawdown increased from about 12 feet at 15 gpm and 40 inches vacuum to about 22 feet at 20 gpm and 40 inches vacuum. The vacuum had to be turned off before drawdown stabilized. TCE concentration data are presented on an attached graph. The results vary between about 160 micrograms per liter (μg/L) and 50 μg/L. These data are consistent with the Phase II Remedial Investigation results; the data suggest the absence of DNAPL droplets within the radius of influence of 24EX3.

The group had previously agreed (meeting of November 5) that a confirmation HydroPunch sample should be collected adjacent to the CPT 101 location where TCE was reported at 533 μg/L at 197 feet below ground surface (bgs). The confirmation sample was collected at 199 feet bgs on November 10 and the analytical result reported was 199 μg/L TCE. The HydroPunch samples were collected near the depth limit of the CPT rig. Pat Brooks said he would fax a cross-section diagram to the group that shows stratigraphic relationships and TCE concentrations in this area. Bernie Lindsey is out of the office, but Pat said he would discuss the possibility of a piezometer to evaluate water quality below the HydroPunch samples when Bernie returns.

Pat asked the group to be thinking of the proposed location for extraction well 24EX6. The proposed location is shown on the attached site plan. This location would keep the well clear of the northern and southern hangar doors and it is in an area of high TCE concentrations. The location for well 24EX6 will be discussed next week after the group has reviewed the cross-sections.

MEETING MINUTES (continued)

Laboratory data from the 24EX4 well group show the following results for TCE:

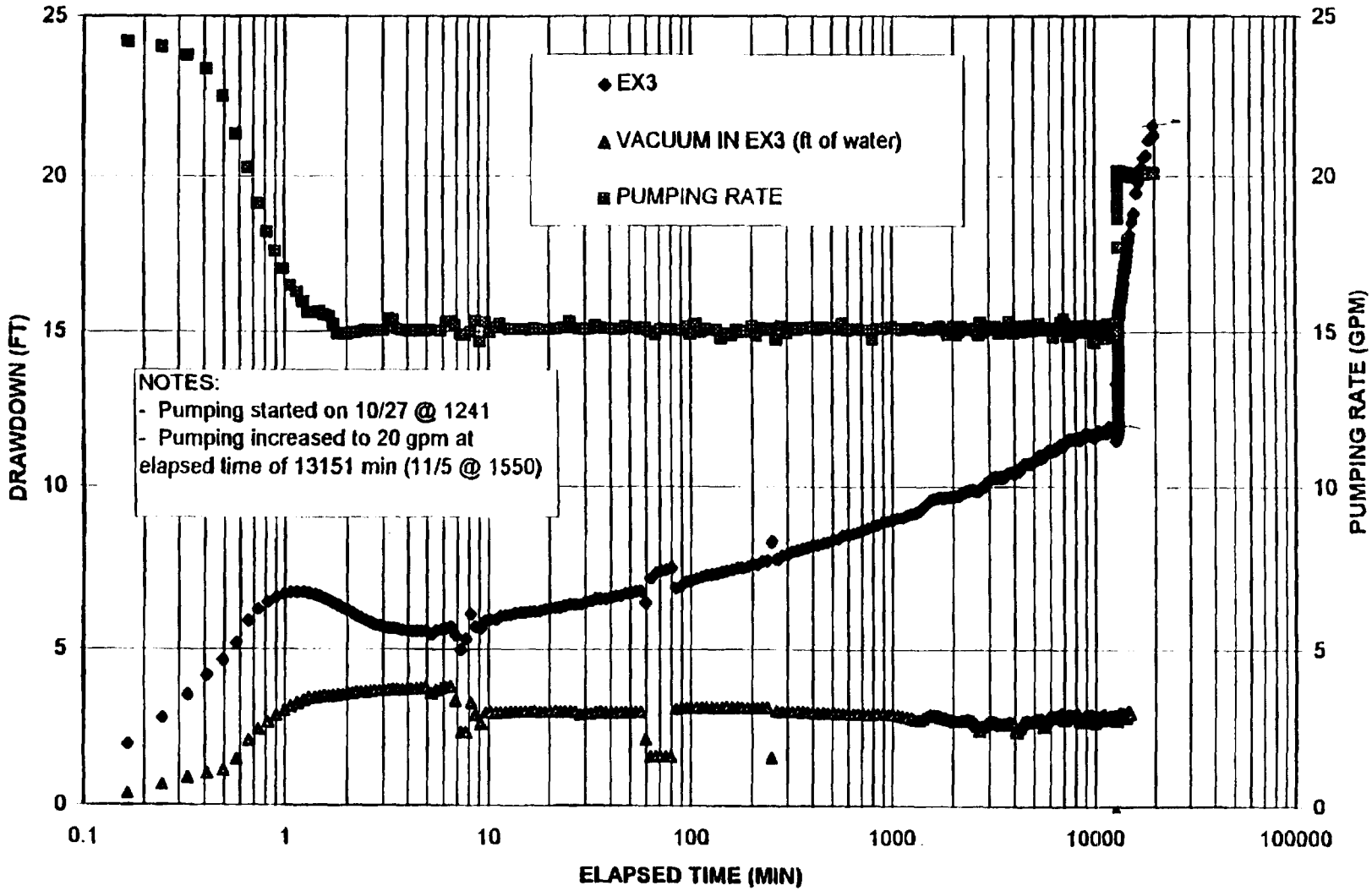
- 24EX4: 128 μg/L
- 24EX4OB1: 251 μg/L
- 24EX4OB2: 376 μg/L

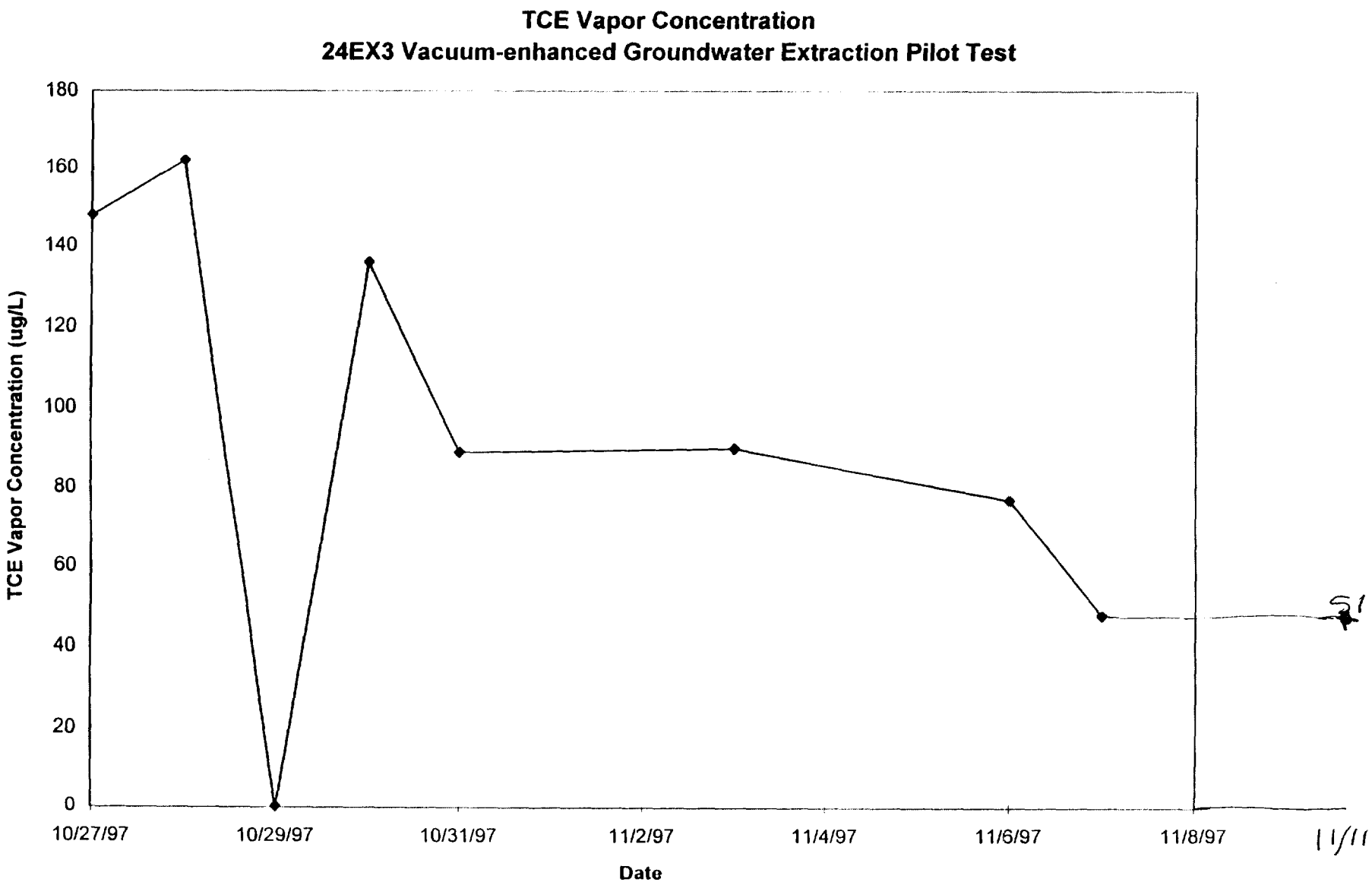
Also attached to these minutes is an updated version of the CPT and HydroPunch results.

The Plan of Action for Site 24 field work for the next two weeks included the following:

1. Continue long-term vacuum-enhanced test at extraction well 24EX3.
2. Present initial vacuum-enhanced test results.
3. Compile and present constant-rate aquifer test data from extraction well 24EX3.
4. Sample well 24EX5 and monitoring wells.
5. Complete CPT/HydroPunch work within the TCE groundwater hot spot.
6. Begin step-drawdown test at extraction well 24EX4 and select a constant pumping rate for constant-rate test.
7. Prepare for constant-rate test at 24EX4.
8. Prepare technical specification for grouting of abandoned water supply well 24AW-4.

EX3 VACUUM-ENHANCED CONSTANT RATE TEST (#9)
PUMPING - EXTRACTION WELL





2 µg/L , midflume

EX3VAPOR.XLS

Site 24 Groundwater Pilot Test
CPT and Hydropunch Summary

CPT Location	Attempt Location	Direct Push Depth	CPT Log Designation	Date	HSA Depth	Date	Soil Sample Depth	Soil Sample Number	Soil Sample results (mg/kg)	Date	Hydropunch Sample depth	Hydropunch Sample Number	Hydropunch Results (mg/L)	Date
24HCPT84	A	0-55	24CPT84A	6/17/97										
	B	0-200	24CP84B	6/17/97										
	C	0-151		6/18/97			126	1420001/01	TCE 71	6/19/97	120	1421001/01	TCE 2,500	6/18/97
							151	1420002/01	Toluene 2.4J	6/19/97			TCE 1,900	
													1,1-DCE 31JD	
													TPH 0.5 mg/L	
													TPH 0.3 mg/L	
											140	1421005/01	TCE 83	6/19/97
													Toluene 1.5	
	D	0-140	REFUSAL	6/19/97										
	E	0-154.5	REFUSAL	6/20/97							151	1421006/01	TCE 31	6/20/97
											152	1421007/01	TCE 35	6/20/97
													Toluene 1.0	
	F	0-54	REFUSAL	6/20/97										
24HCPT85	A	0-44	24CPT85A	6/18/97	0-65	6/25/97	125	1420003/01	TCE 22.9	6/23/97	120	1421013/01	TCE 590	6/23/97
									1,1-DCE 7.86				1,1-DCE 30.4	
													cis-1,2-DCE 0.376J	
													Chloroform 1.72	
													Carbon Tet. 2.28	
													PCE 5.39	
		160-201	24C85A1	6/25/97	65-160	6/25/97								
	B	0-51	24CP85B	6/18/97	0-160	6/26/97	144.5	1420004/01	TCE 95	6/24/97	140	1421015/01	TCE 64	6/24/97
		65-143	24CP85C	6/23/97									Toluene 9.2	
											175	1421018/04	TCE 4.6	6/26/97
													Carbon Tet. 1.2	
													Toluene 0.32J	
24HCPT86	A	0-55	24CP86A	6/19/97										
	B	0-53	24CP86B	6/19/97	0-60	6/24/97								
		60-137	24CP86C	6/24/97	60-160	6/25/97								

Site 24 Groundwater Pilot Test
CPT and Hydropunch Summary

		160-198	24C86B1	6/25/97										
	C	0-53	24CP86D	6/25/97	0-100	6/26/97	115	1420005/01	TCE 4.2J	6/27/97	110	1421019/13	TCE 86 1,1-DCE 34 Carbon TET. 1.6 PCE 6.9 Chloroform 1.4	
					100-130	6/27/97	AUGER BROKEN							
					0-130	7/1/97								
					130-135	7/2/97					135	1421029/01	TCE 940 TCE 1,400	7/1/97
	D	160-175.5	REFUSAL	7/7/97	0-105	7/3/97					174.5	1421038/01	TCE 35	7/7/97
					105-160	7/7/97								
24HCPT87	A	0-47	24CP87A	6/20/97	0-65	6/27/97								
		65-200	24C87A1	6/30/97										
	B	0-47.5	24CP87B	6/30/97	0-65	6/30/97	126.5	1420006/01	TCE 4.8J 1,3-Dichlorb. 3.9J	7/1/97	120	1421027/01	TCE 27 Toluene 0.27J Carbon Tet. 0.42J PCE 2.8	7/1/97
		65-145	REFUSAL	7/3/97	65-135	7/2/97					145	1421032/01	TCE 50	7/3/97
24HCPT88	A	0-56	24CP88A	6/23/97	0-70	6/27/97								
		60-181	24C88A1	6/27/97										
	B	0-52	24CP88B	6/23/97	0-65	7/3/97					120	1421035/01	TCE 4,900 PCE 0.34	7/3/97
	C	0-138	REFUSAL	7/11/97							138	1421048/01	TCE 410	7/11/97
	D	105-140	REFUSAL	7/14/97	0-105	7/14/97								
24HCPT89	A	0-51	24CP89A	6/24/97	0-60	6/27/97								
		60-61	24C89A1	6/30/97										
		65-203	24C89A2	6/30/97										
	B	0-51	REFUSAL	6/24/97	0-60	7/3/97								
	C	110-115	REFUSAL	7/10/97	0-110	7/9/97					115	1421045/01	TCE 250	7/10/97

Site 24 Groundwater Pilot Test
CPT and Hydropunch Summary

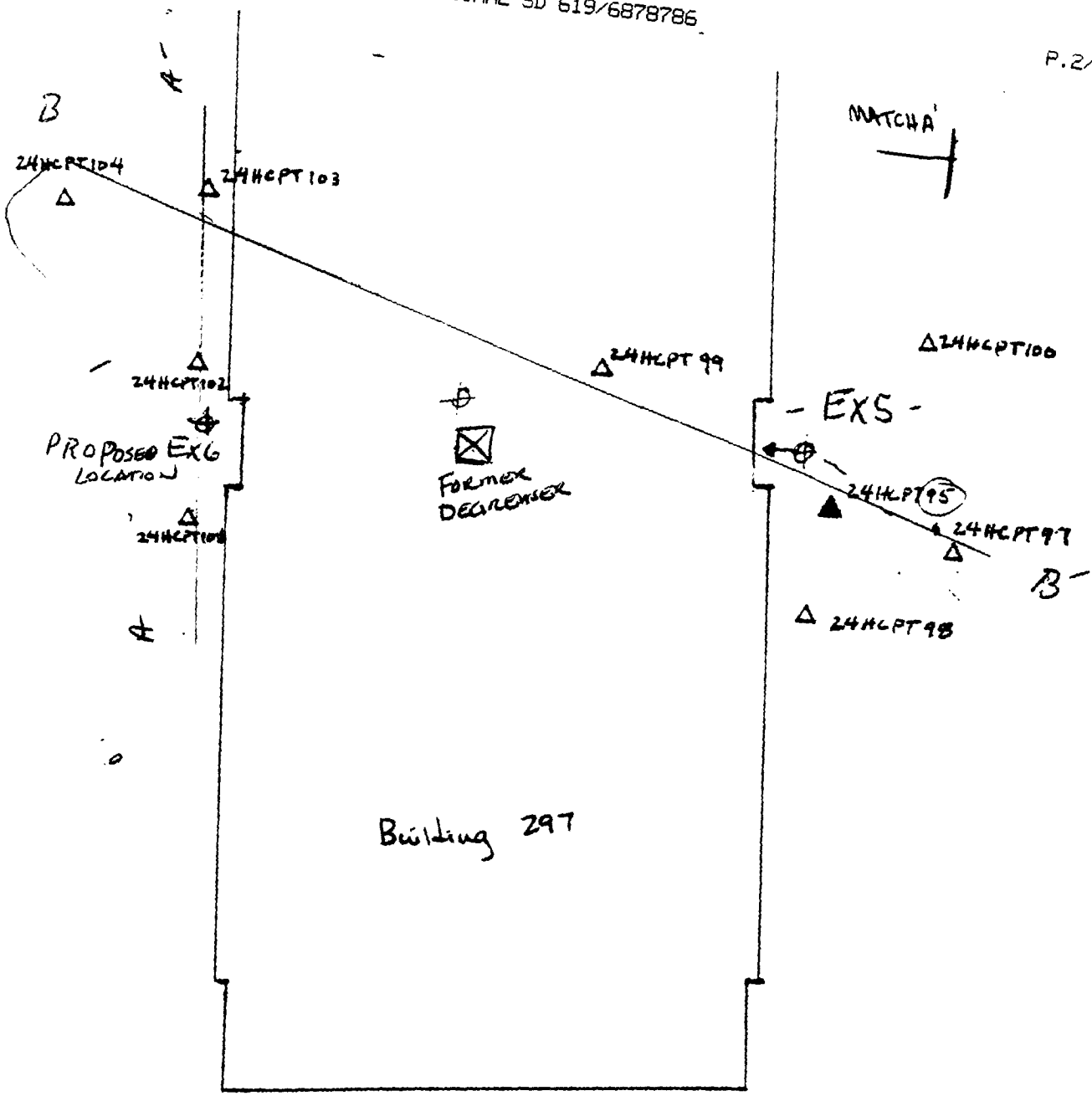
													1,1-DCE 52	
24HCPT90	A	0-189	24C90A	7/9/97										
	B	0-88	REFUSAL	7/9/97										
	C	0-185	REFUSAL	7/9/97			128	1420007/01	ND	7/9/97	120	1421041/01	TCE 48	7/9/97
													1,1-DCE 6.2	
							153	1420008/01	TCE 380	7/10/97	148	1421042/01	TCE 70	7/10/97
											185	1421043/01	TCE 96	7/10/97
													1,1-DCE 3.5	
24HCPT91	A	0-50	24C91A	7/11/97	0-60	7/14/97								
		60-148	24C91A1	7/14/97	60-160	7/15/97								
		160-185	24C91A2	7/15/97										
	B	0-148	REFUSAL	7/16/97	0-65	7/16/97	122	1420009/01	ND	7/16/97	120	1421049/01	TCE 7.7	7/16/97
											132	1421050/01	TCE 31	7/17/97
													1,1-DCE 4.7	
24HCPT 92	A	0-130	24C92A	7/14/97	0-130	7/15/97								
		130-195	24C92B	7/15/97										
	B	100-150	REFUSAL	7/17/97	0-100	7/17/97					128	1421052/01	TCE 223	7/17/97
											150	1421056/01	TCE 320	7/18/97
24HCPT93	A	0-201	24C93A	7/15/97										
	B	0-95	REFUSAL	7/22/97	0-65	7/15/97					117	1421064/01	TCE 450	7/23/97
		100-146.5	REFUSAL	7/23/97	65-100	7/23/97					146.5	1421066/01	TCE 100	7/23/97
24HCPT94	A	0-23	24C94A	7/15/97	0-30	7/15/97								
		30-95	24C94B	7/22/97	30-100	7/22/97								
	B	65-95	24C94A1	7/22/97	0-65	7/17/97					117	1421067/01	TCE 89	7/24/97
				7/24/97	65-100	7/22/97							1,1-DCE 92.6	
													PCE 1.58	
		100-150	24C94A2								145	1421071/01	TCE 49.7	7/24/97
24HCPT95	A	0-200	24C95A	7/16/97										
	B	0-23	REFUSAL											
	C	0-123	REFUSAL	7/23/97							123	1421062/01	TCE 494	7/23/97
													1,1-DCE 79	
	D	0-145	REFUSAL	7/24/97	0-140	7/24/97					145	1421071/01	TCE 106	7/24/97
24HCPT96	A	0-200	24C96A	7/18/97										
	B	0-98	REFUSAL	7/21/97										
	C	0-140	REFUSAL	7/21/97							125	1421058/01	TCE 1,330	7/21/97

Site 24 Groundwater Pilot Test
CPT and Hydropunch Summary

													1,1-DCE 22	
											140	1421061/01	TCE 39.7	7/22/97
24HCPT97	A	0-148	CPT97A	10/14/97										
	B	0-60	CPT97B	10/14/97										
	B	155-209	CPT97B1	10/16/97	0-155	10/15/97								
	C						126	1422014	TCE 28	10/27/97	125	1421095	TCE 573	10/28/97
							155	1422015	TCE 40	10/28/97			1,1-DCE 35	
													cis 1,2-DCE 1.1	
													Chloroform 1.7	
													Carbon Tet 3.4	
													PCE 11	
											145	1421096	TCE 717	10/28/97
											170	1421098	TCE 618	10/28/97
											195	1421102	TCE 4.5	10/29/97
24HCPT98	A	0-203	CPT98A	10/15/97										
	B						128	1422013	TCE 5.7	10/24/97	125	1421087	TCE 668	10/24/97
													1,1-DCE 30	
													PCE 13	
	C										148	1421089	TCE 401	10/24/97
											165	1421092	TCE 217	10/27/97
													1,1-DCE 1.1	
											203	1421093	TCE 7.5	10/27/97
24HCPT99	A	0-192	CPT99A	10/15/97										
	B													
	C				0-145	10/21/97	125	1422012	TCE 12.5	10/21/97	123	1421079	TCE 279E	10/20/97
													1,1-DCE 27.8	
													PCE 1.9	
													Carbon Tet 1.6	
											138	1421081	TCE 81	10/21/97
											150	1421083	TCE 733	10/22/97
	D										190	1421086	ND	10/23/97
24HCPT100	A	0-211	CPT100A	10/14/97										
	B				0-175	10/20/97	132	1422010	ND	10/17/97	122	1421072	TCE 15	10/17/97
							147	1422011	TCE 2.44	10/20/97	146	1421077	TCE 106E	10/17/97
											177	1421082	ND	10/21/97
24HCPT101	A	0-209	CPT101A	10/20/97			122	1422016		10/30/97	121	1421103	TCE 970	10/29/97
	B										132	1421105	TCE 557	10/30/97

Site 24 Groundwater Pilot Test
CPT and Hydropunch Summary

											152	1421106	TCE 68	10/31/97
	C										197	1421107	TCE 533	10/31/97
	D										199	1421126		11/10/97
24HCPT102	A	0-200	CPT102A	10/16/97										
	B													
	C						120	1422017	TCE 100	11/3/97				
											155	1421108	TCE 242E	11/3/97
											173	1421110	TCE 15	11/3/97
											197	1421111	ND	11/4/97
	D										119	1421114	TCE 2900	11/4/97
24HCPT103	A	0-173	CPT103A	10/20/97										
	B										124	1421122	TCE 680	11/6/97
													1,1-DCE 19	
													PCE 12	
											140	1421124	TCE 90	11/7/97
											160	1421125	TCE 25	11/7/97
24HCPT104	A	0-200	CPT104A	10/22/97										
	B													
	C						127	1422018		11/5/97	121	1421116	TCE 1700	11/5/97
													1,1-DCE 34	
											146	1421118	TCE 690	11/5/97
													1,1-DCE 25	
											163	1421119	TCE 43	11/6/97
											192	1421120	TCE 14	11/6/97



LEGEND

- ▲ Existing CPT location
- △ Proposed CPT location
- Proposed extraction and observation wells
- Existing wells

N

SCALE 1" = 80'

Job/Client Name:
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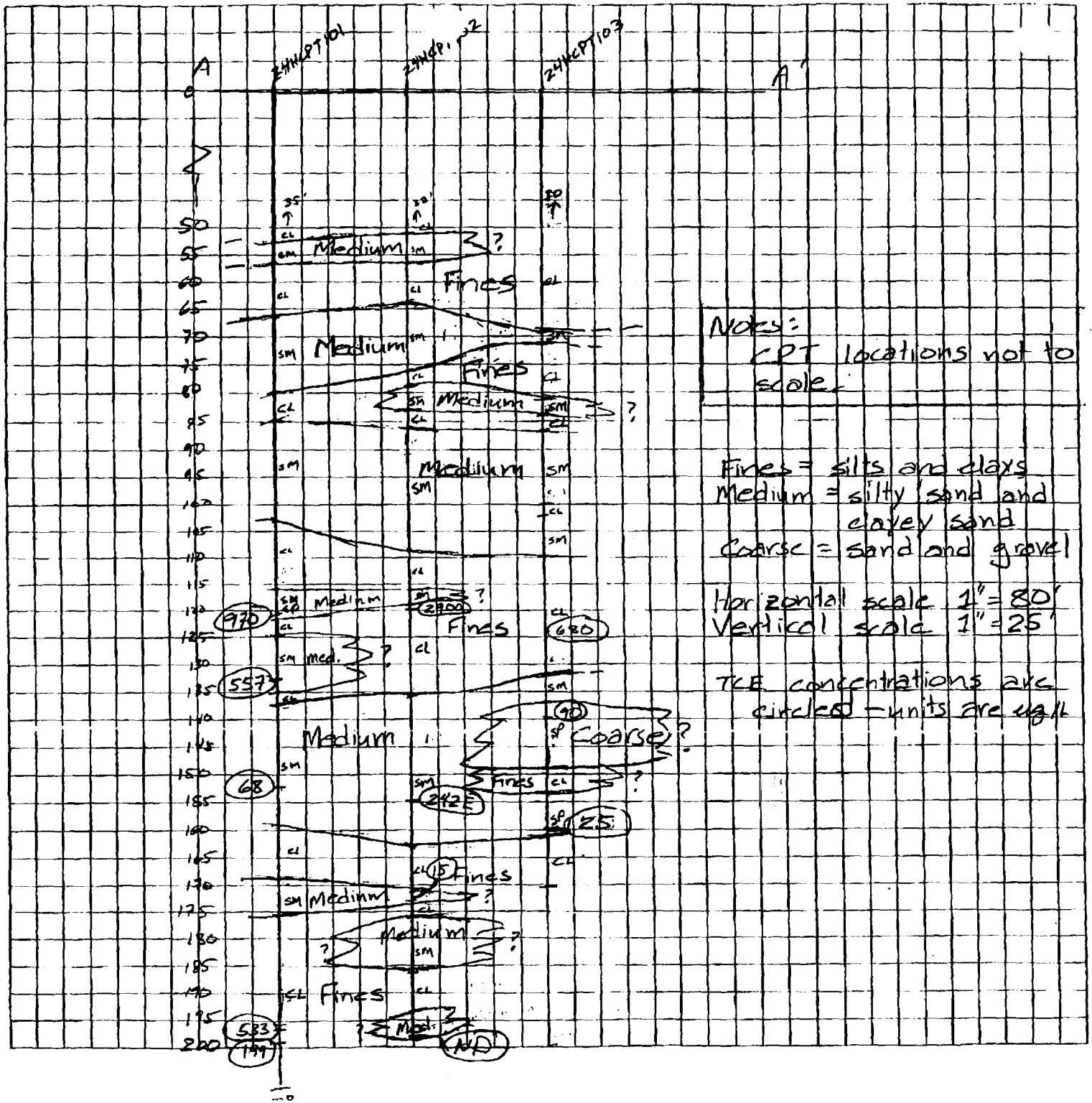
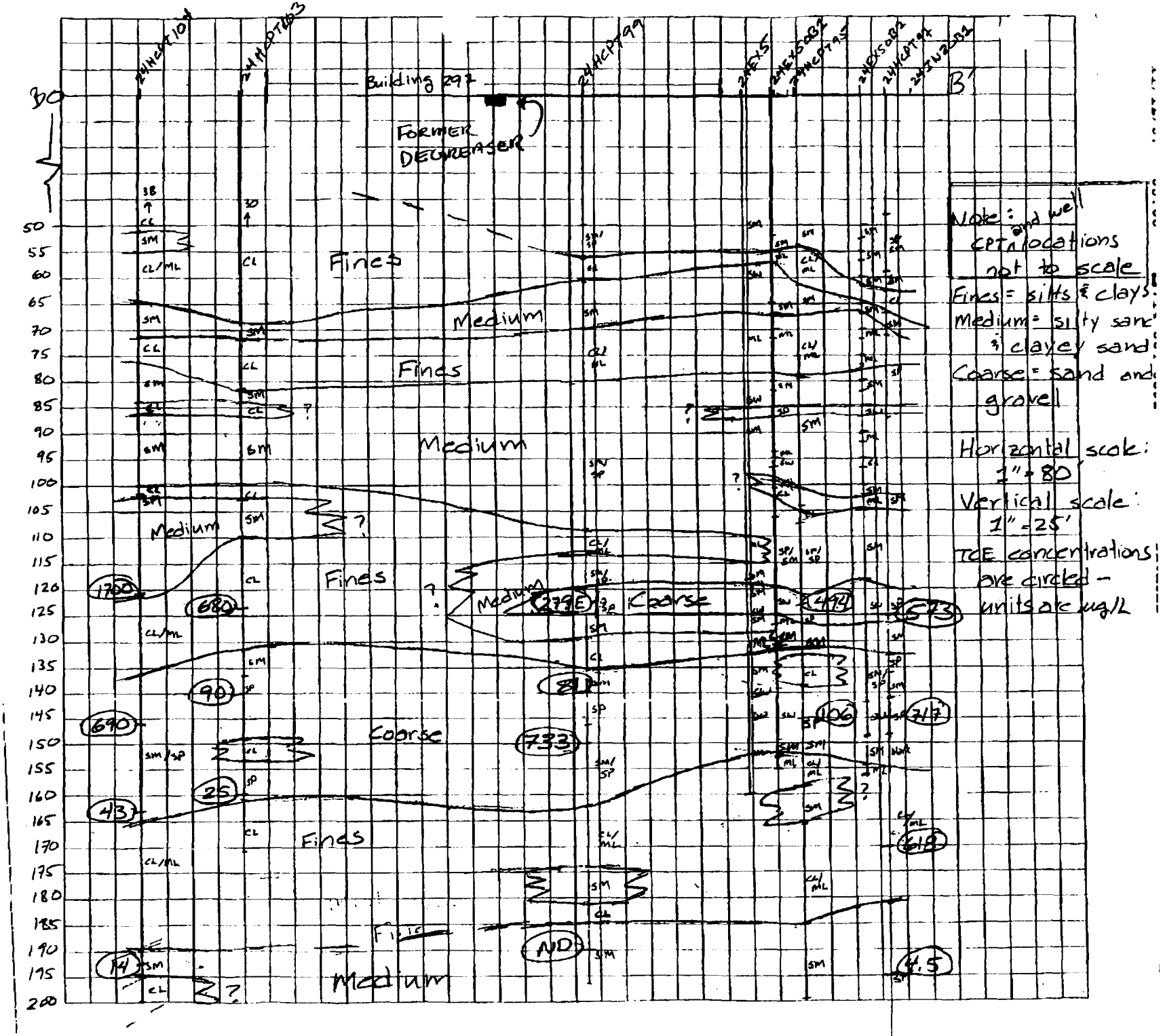
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