

# Duquesne Light Company

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U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

May 10, 1996

**Subject: Beaver Valley Power Station, Unit No. 1  
Docket No. 50-334, License No. DPR-66  
Steam Generator Pulled Tube Eddy Current Profiles;  
April 16, 1996, Conference Call Documentation**

This letter documents the information requested by the NRC staff during a conference call on April 16, 1996. This information provides the results of eddy current depth profiling of the hot leg top of tubesheet indications for the four tubes removed during the eleventh refueling outage. The removed tube segments have not yet been transported to the laboratory; therefore, the data represents "blind" nondestructive examination (NDE) analyses prior to laboratory examination.

The data describes the indications identified on the four tube segments removed. The removed tube segments include the largest axial indication (SG-B; R12C45), the deepest average depth axial indication which also represents the indication with the lowest estimated burst pressure (SG-C; R18C30), and the indication with the second lowest estimated burst pressure (SG-C; R16C28). The fourth indication (SG-C; R18C36) is a small indication in both length and average depth that was selected for removal to investigate the limit of detection of the Plus Point probe for this type of degradation (sludge pile, outside diameter stress corrosion cracking).

Included, as part of these blind analyses, is a summary table of the rotating pancake coil (RPC) crack depth analyses, along with plots of the depth profiles and RPC C-scans of the indications. Results of the laboratory NDE and destructive examinations will be provided when available.

Sincerely,



Sushil C. Jain



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Beaver Valley Power Station, Unit No. 1  
Steam Generator Pulled Tube Eddy Current Profiles;  
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c: Mr. T. T. Martin, NRC Region I Administrator  
Mr. L. W. Rossbach, Sr. Resident Inspector  
Mr. D. S. Brinkman, Sr. Project Manager

Beaver Valley Power Station, Unit No. 1  
Steam Generator Pulled Tube Eddy Current Profiles

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**Beaver Valley-1 1996 Pulled Tubes: Summary of RPC Crack Depth Analyses**

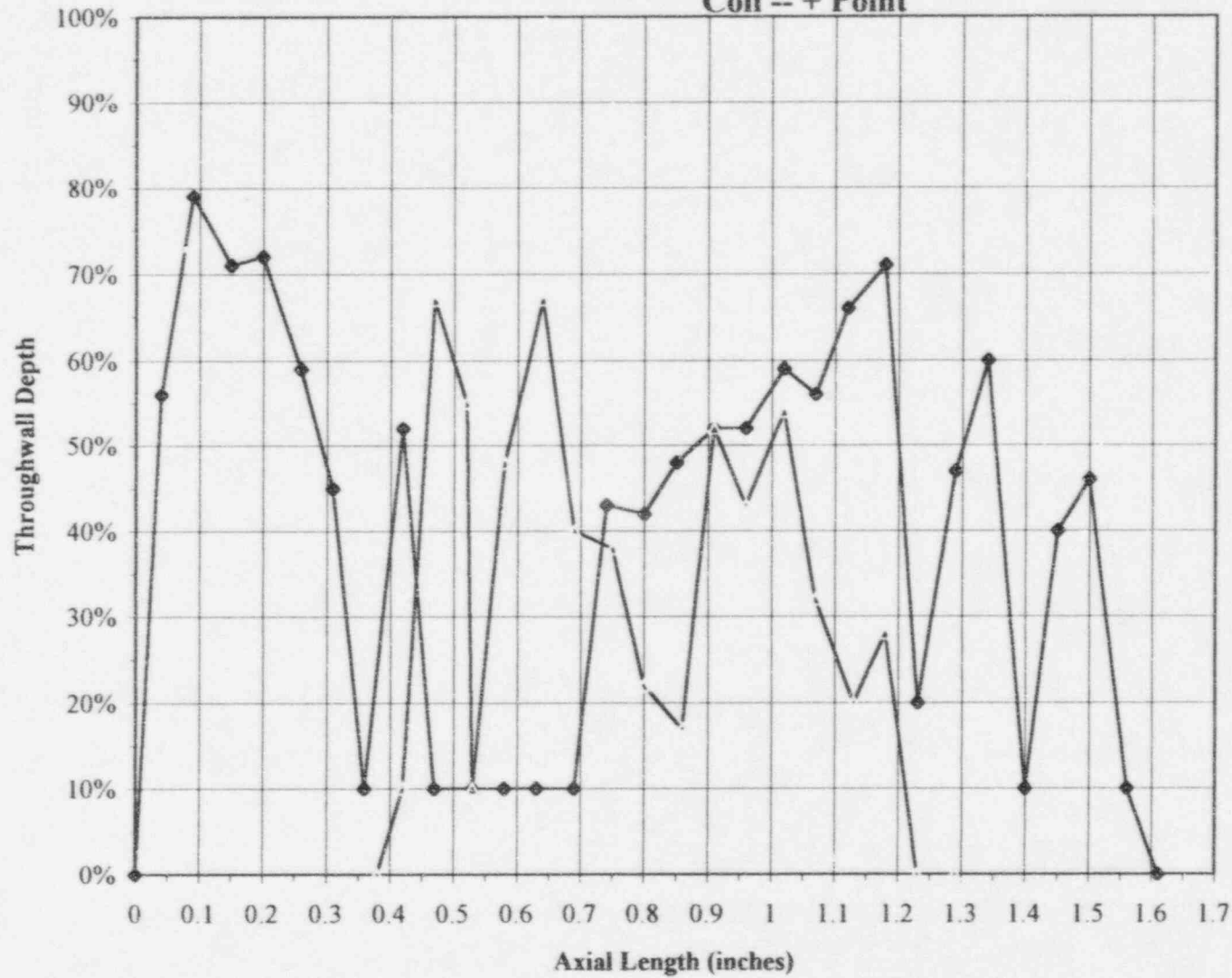
SG	Tube	Coil	Crack No.	Maximum Depth (%)	Average Depth (%)	Crack Length (in.)
B	R12C45	+ Point	1	79%	41%	1.61
			2	67%	34%	0.91
			3	54%	24%	1.09
			4	77%	42%	0.6
			5	85%	45%	1.35
		80 mil MR	1		INS <sup>(1)</sup>	
		115 mil	1		INS <sup>(1)</sup>	
C	R18C30	+ Point	1	93%	66%	1.11
		80 mil MR	1	74%	41% <sup>(2)</sup>	0.61
		115 mil	1	74%	60%	0.59
C	R16C28	+ Point	1	87%	58%	1.00
			2	64%	41%	0.53
		80 mil MR	1	74%	44%	0.88
		115 mil	1	78%	51%	0.97
C	R18C36	+ Point	1	54%	33%	0.28
		80 mil MR	1	No Data	No Data	No Data
		115 mil	1		INS <sup>(1)</sup>	

**Notes:**

1. INS = Indication not sizable.
2. Depth sizing difficult to perform.

# Beaver Valley-1 1996 Pulled Tubes Sludge Pile Indication, SG B, R12C45

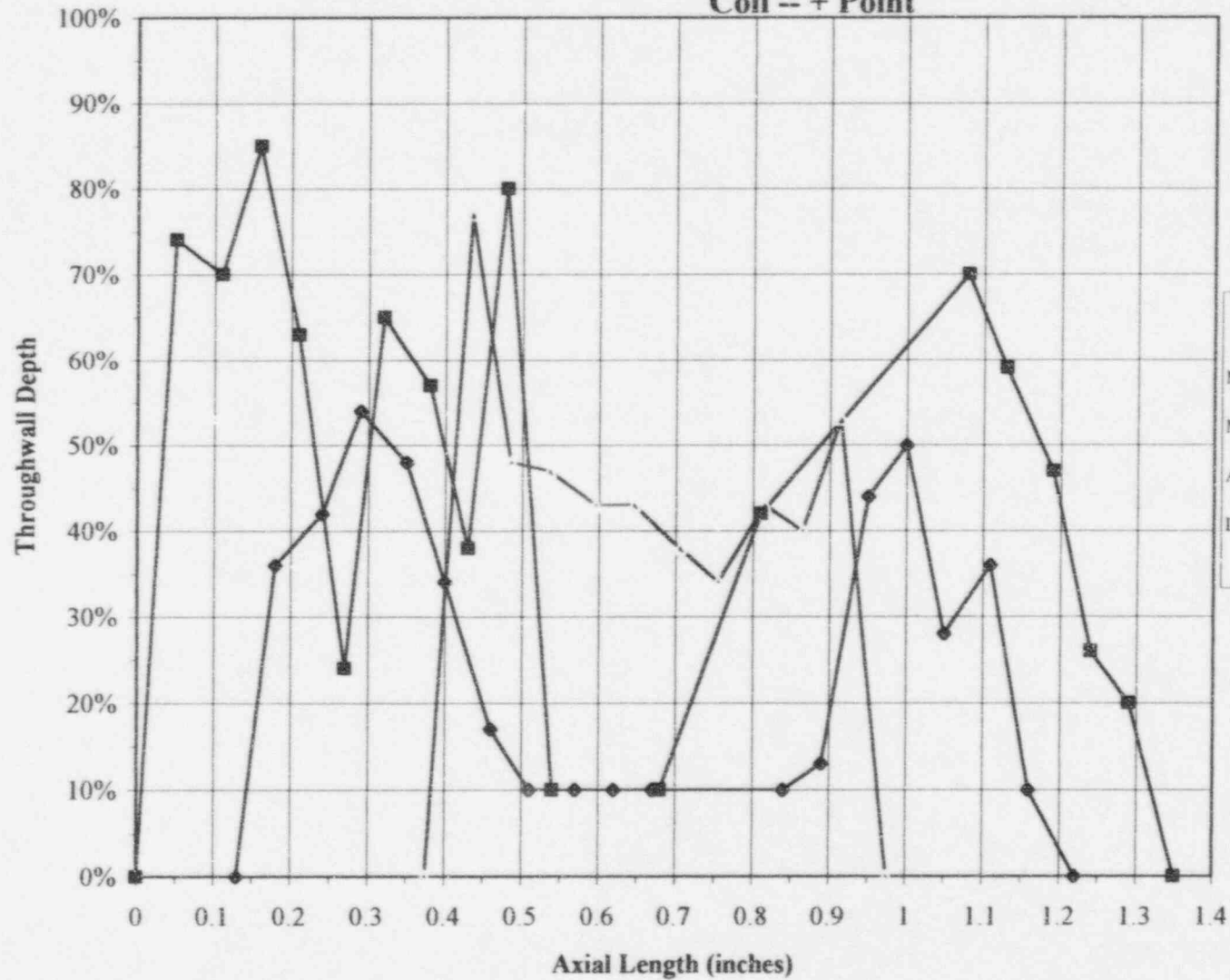
Coil -- + Point



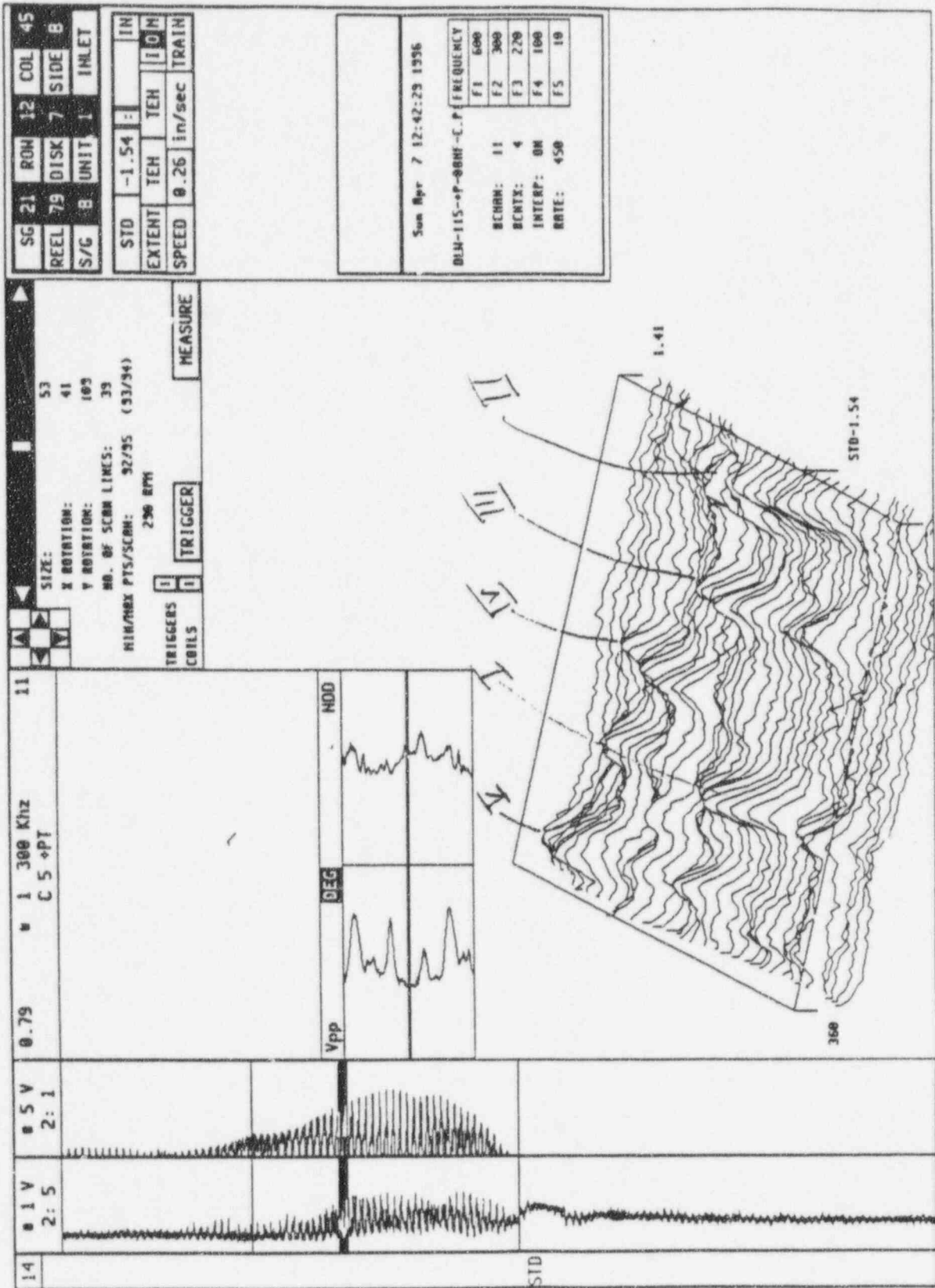
—◆— '96 + Point Crack1  
- - -△- - '96 + Point Crack2

	'96 + Point Crack 1	'96 + Point Crack 2
Max Volts	.3	.29
Max Depth	79%	67%
Avg Depth	40.7%	33.7%
Length	1.61 in.	.91 in.

**Beaver Valley-1 1996 Pulled Tubes**  
**Sludge Pile Indication, SG B, R12C45**  
**Coil -- + Point**



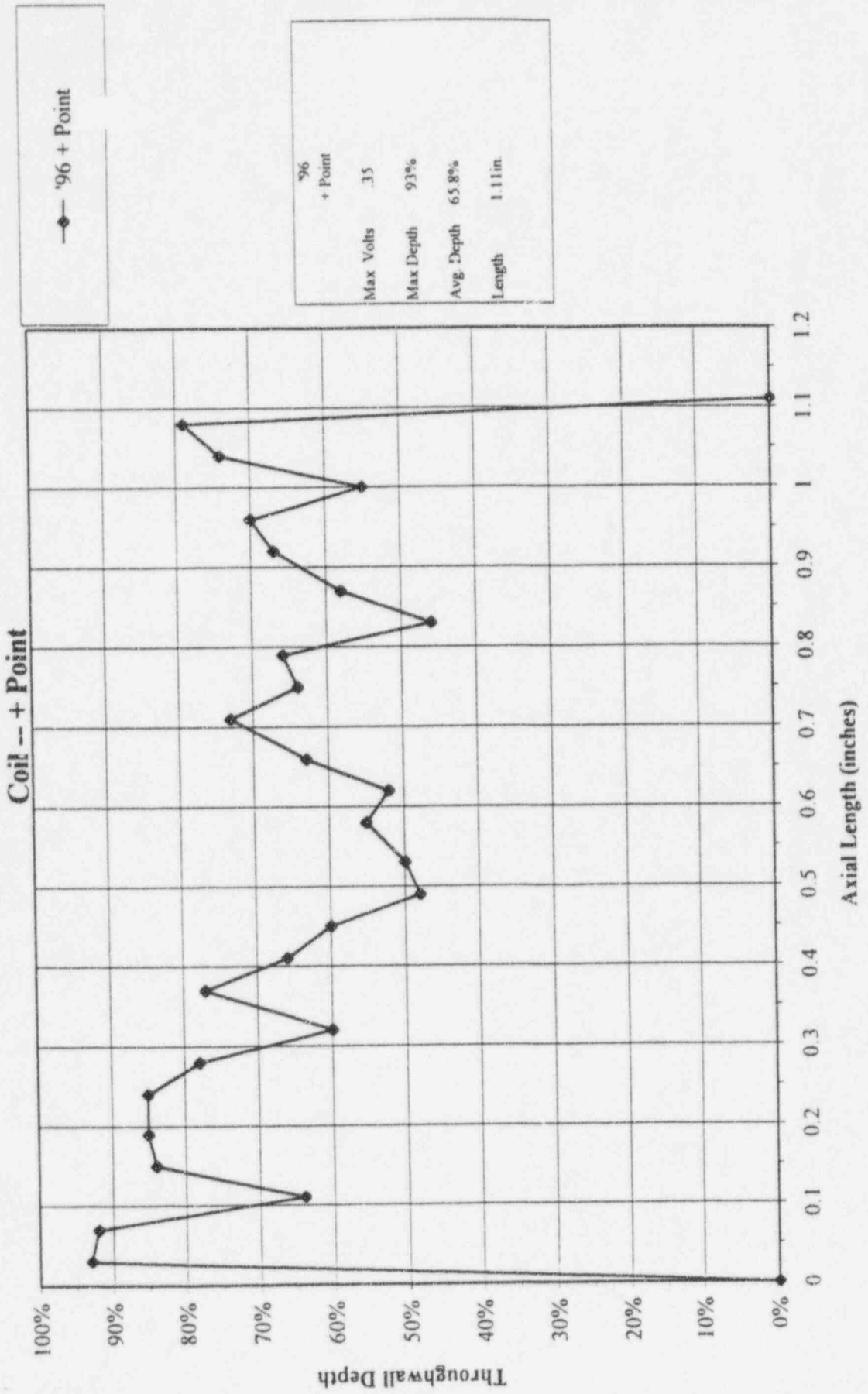
	'96 + Point Crack 3	'96 + Point Crack 4	'96 + Point Crack 5
Max Volts	24	19	26
Max Depth	54%	77%	85%
Avg. Depth	24%	41.9%	44.6%
Length	1.09in.	.6in.	1.35in.



EC179 04/25/96 11:25:13

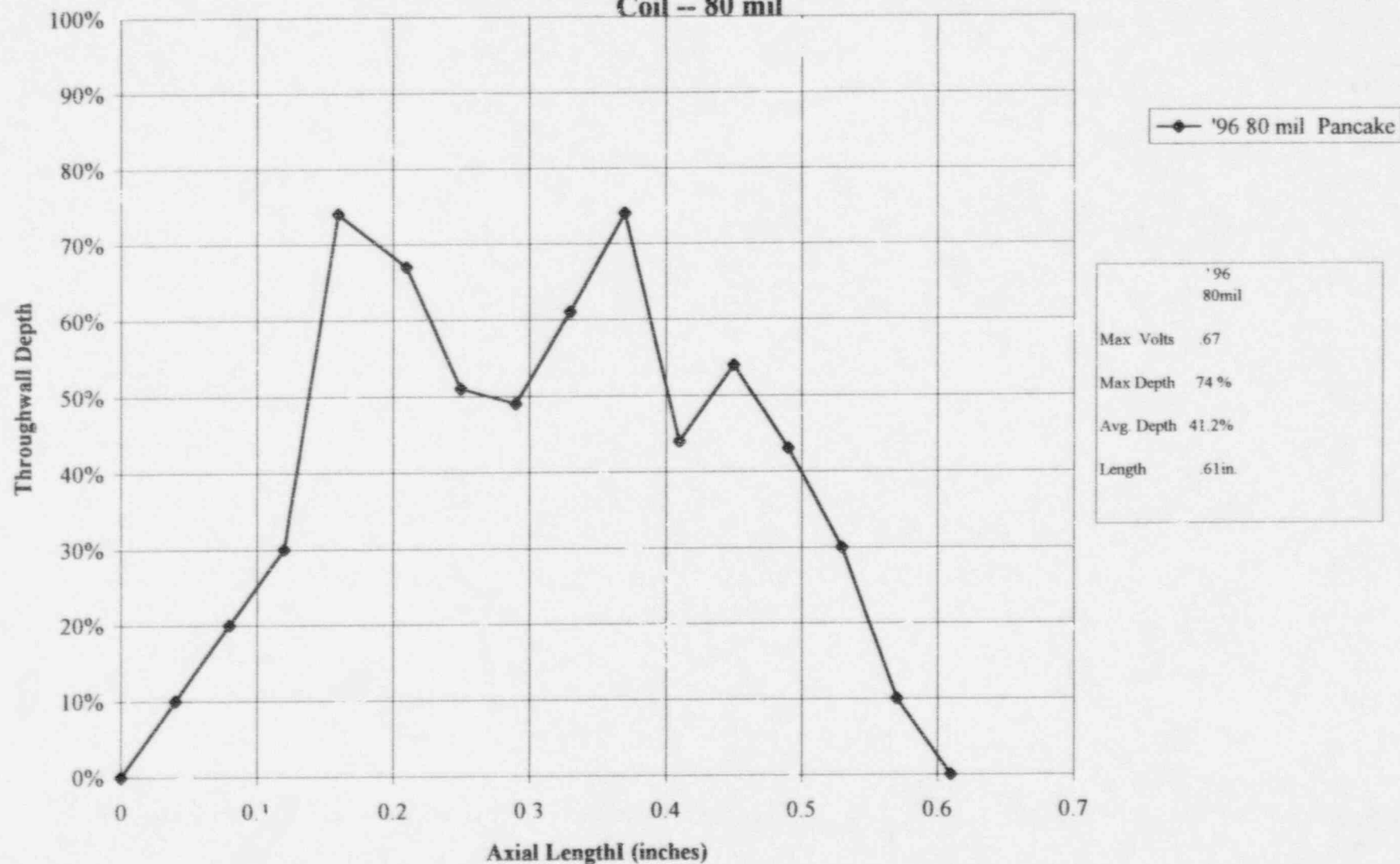


# Beaver Valley-1 1996 Pulled Tubes Sludge Pile Indication, SG C, R18C30



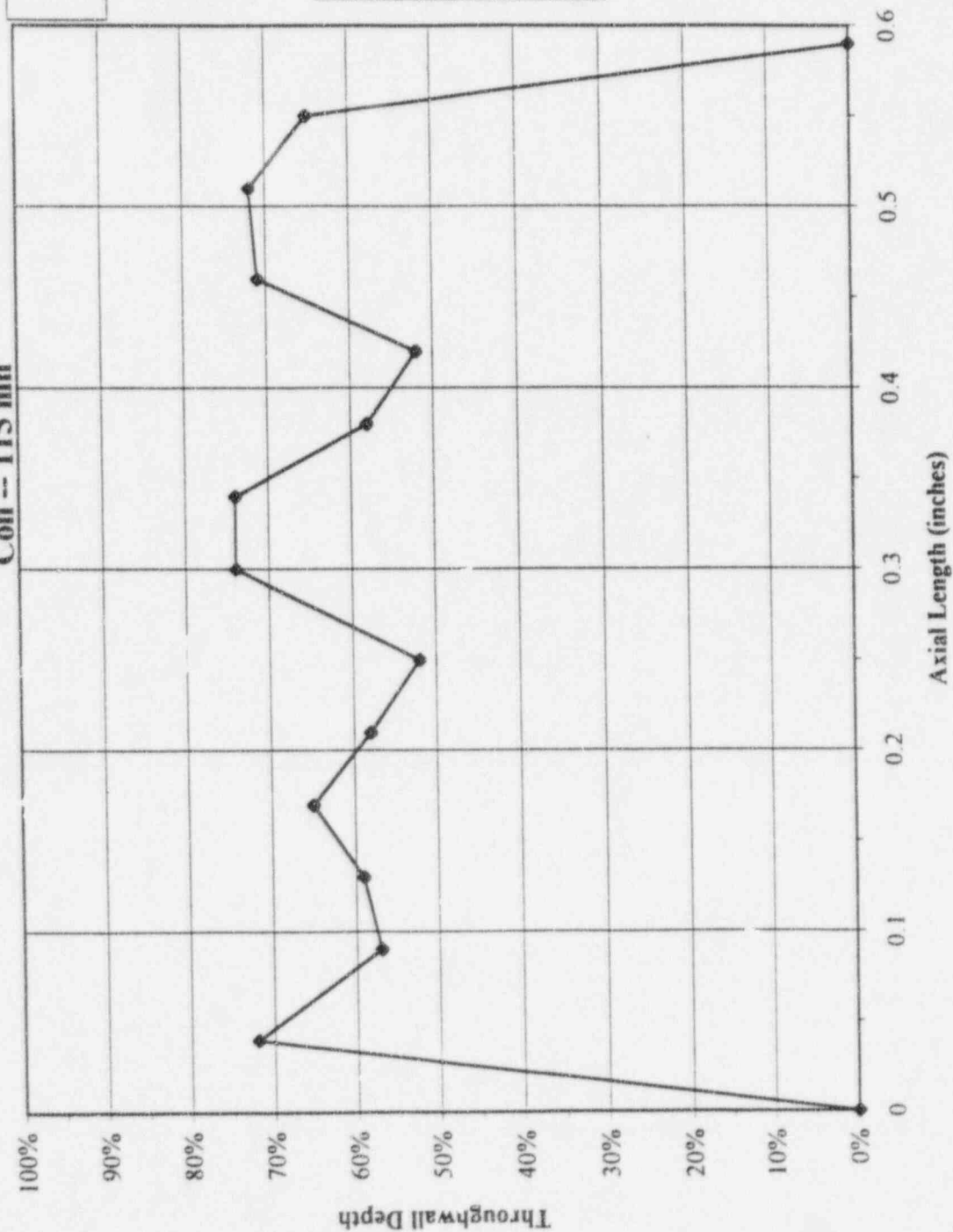


**Beaver Valley-1 1996 Pull of Tubes**  
**Sludge Pile Indications, SG C, R18C30**  
**Coil -- 80 mil**



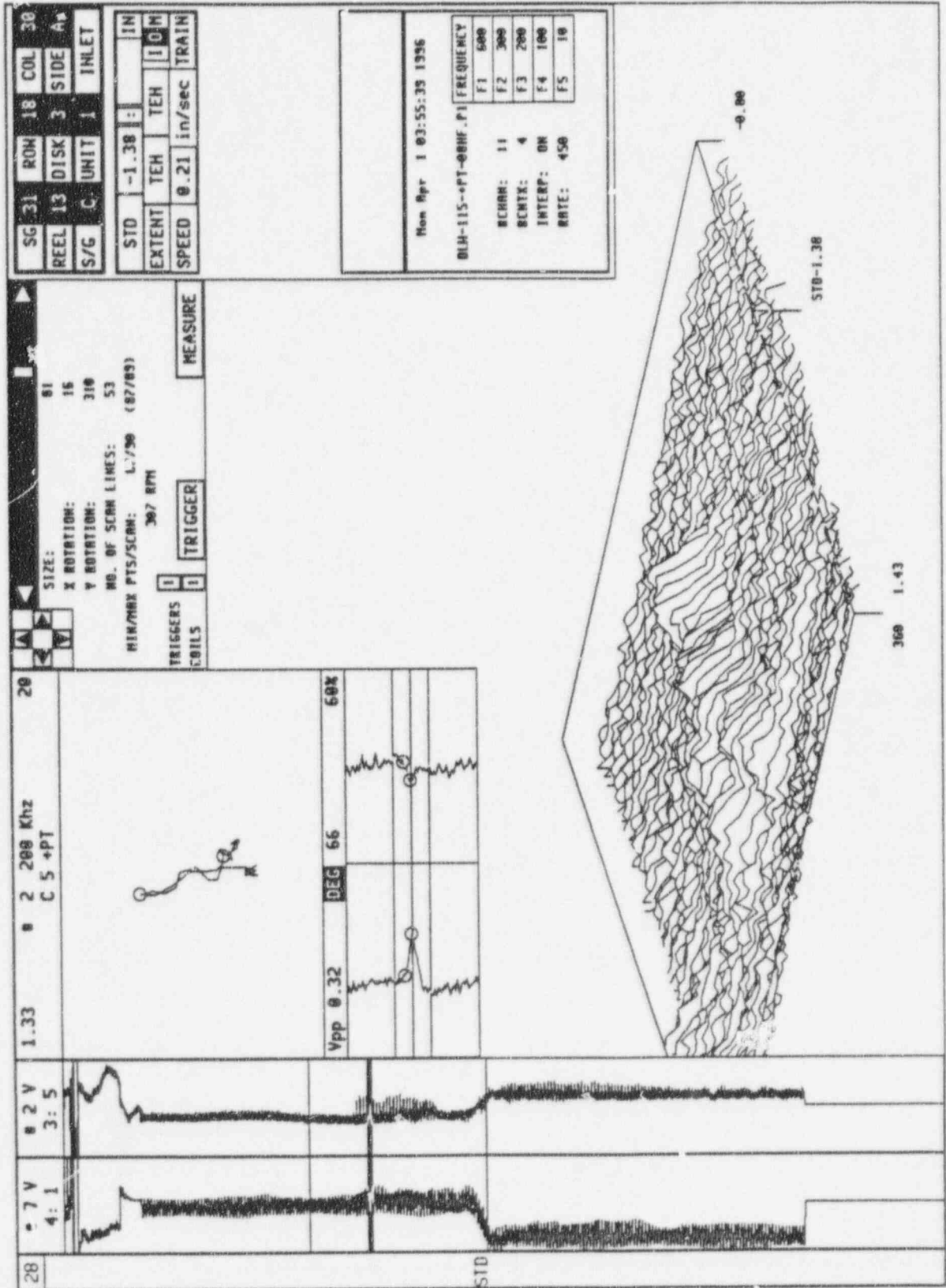
# Beaver Valley-1 1996 Pulled Tubes Sludge Pile Indication, SG C, R18C30

Coil -- 115 mil

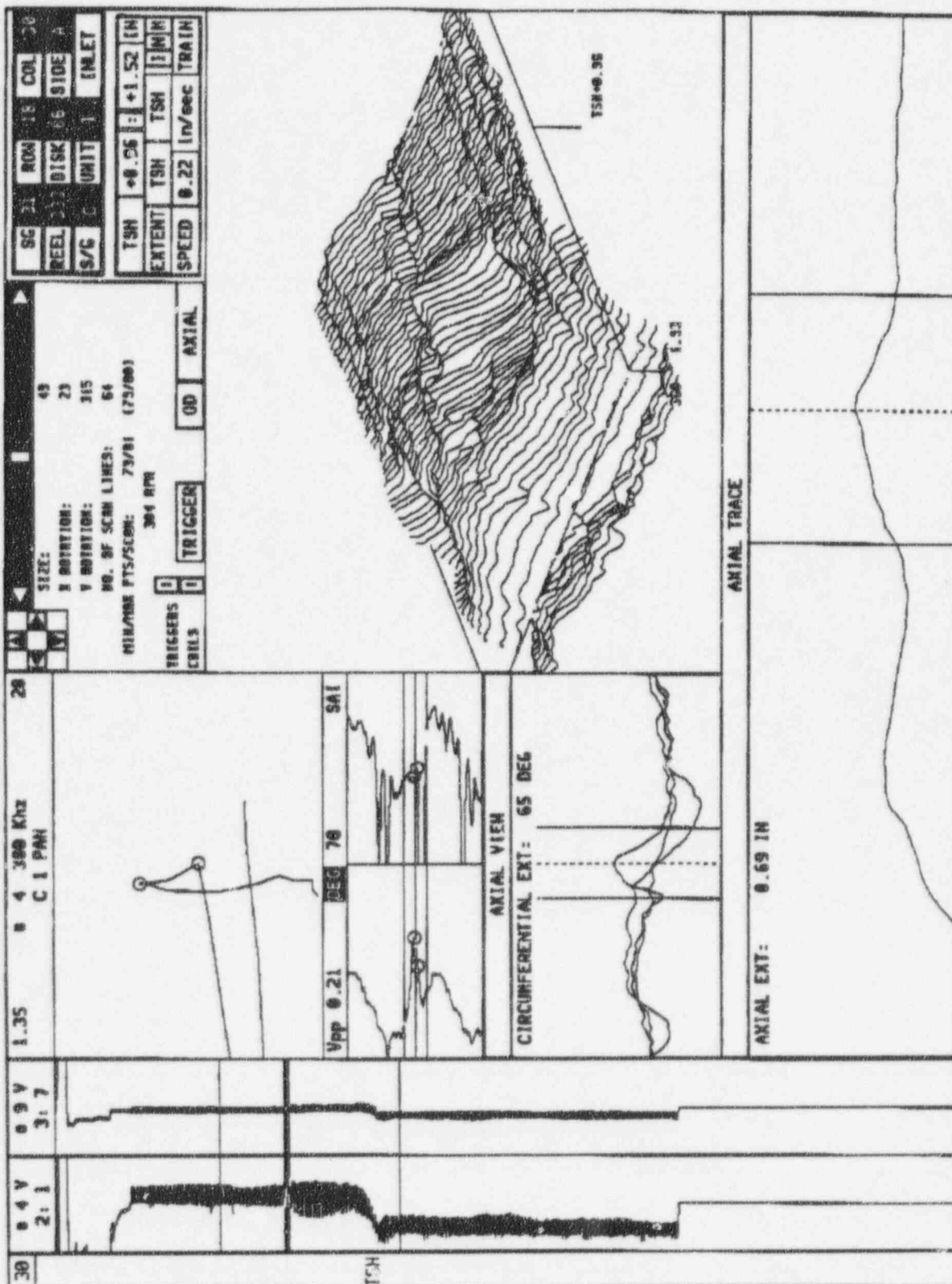


● '96 115 mil PT

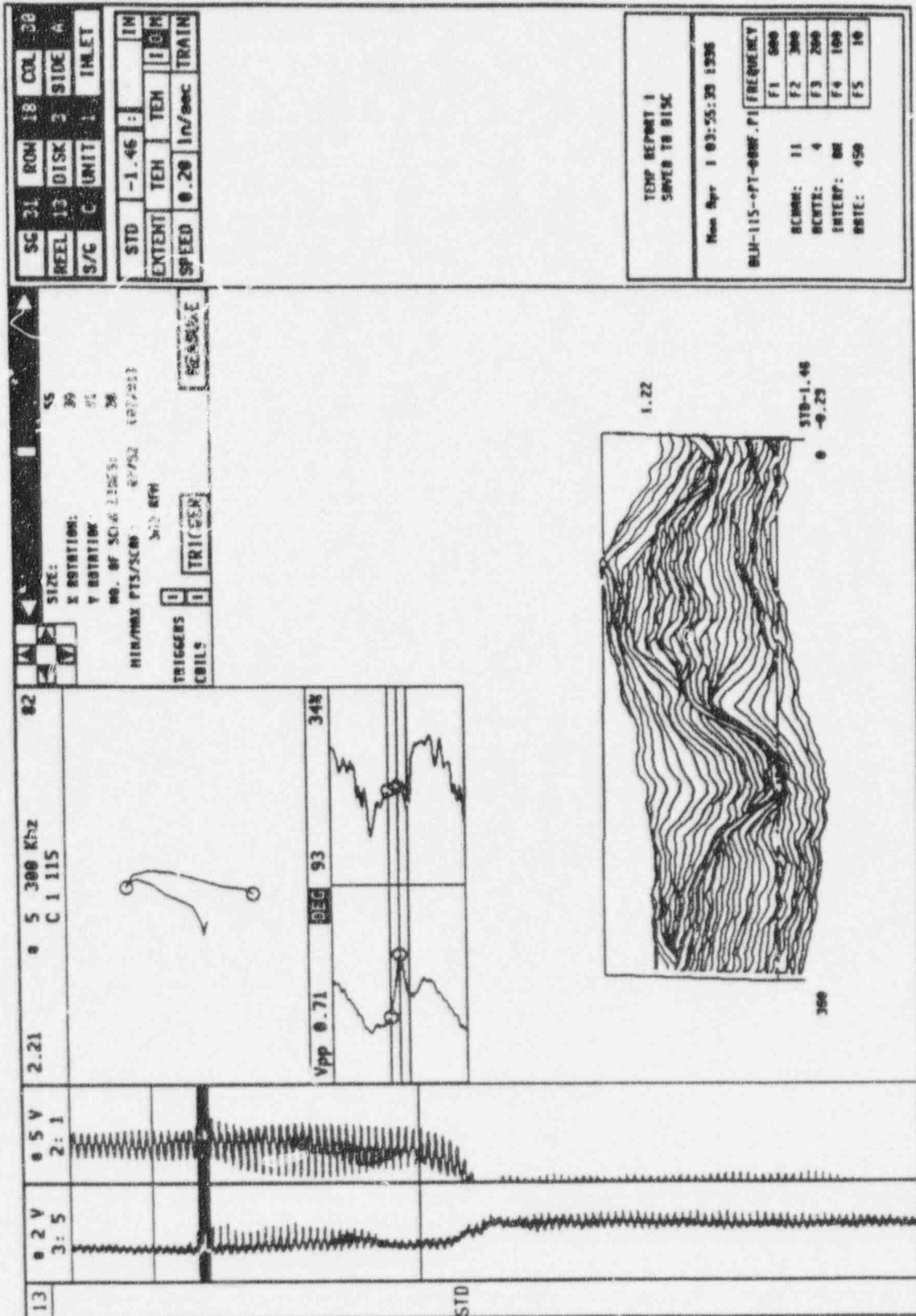
'96	115 mil
Max Volts	.49
Max Depth	74%
Avg Depth	59.57%
Length	.59in.



EC179 04/12/96 09:27:58

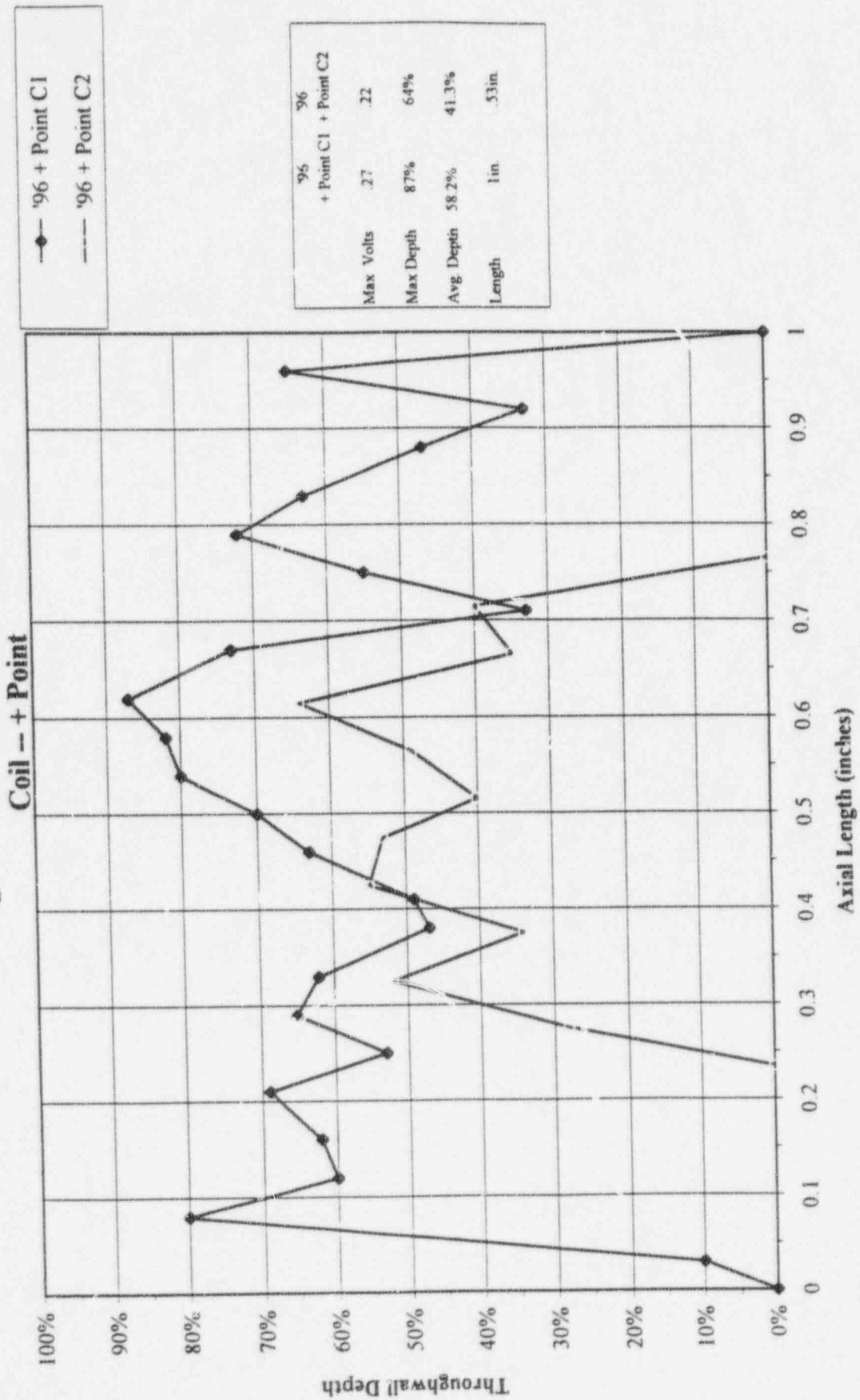


EC191 04/15/96 13:30:35



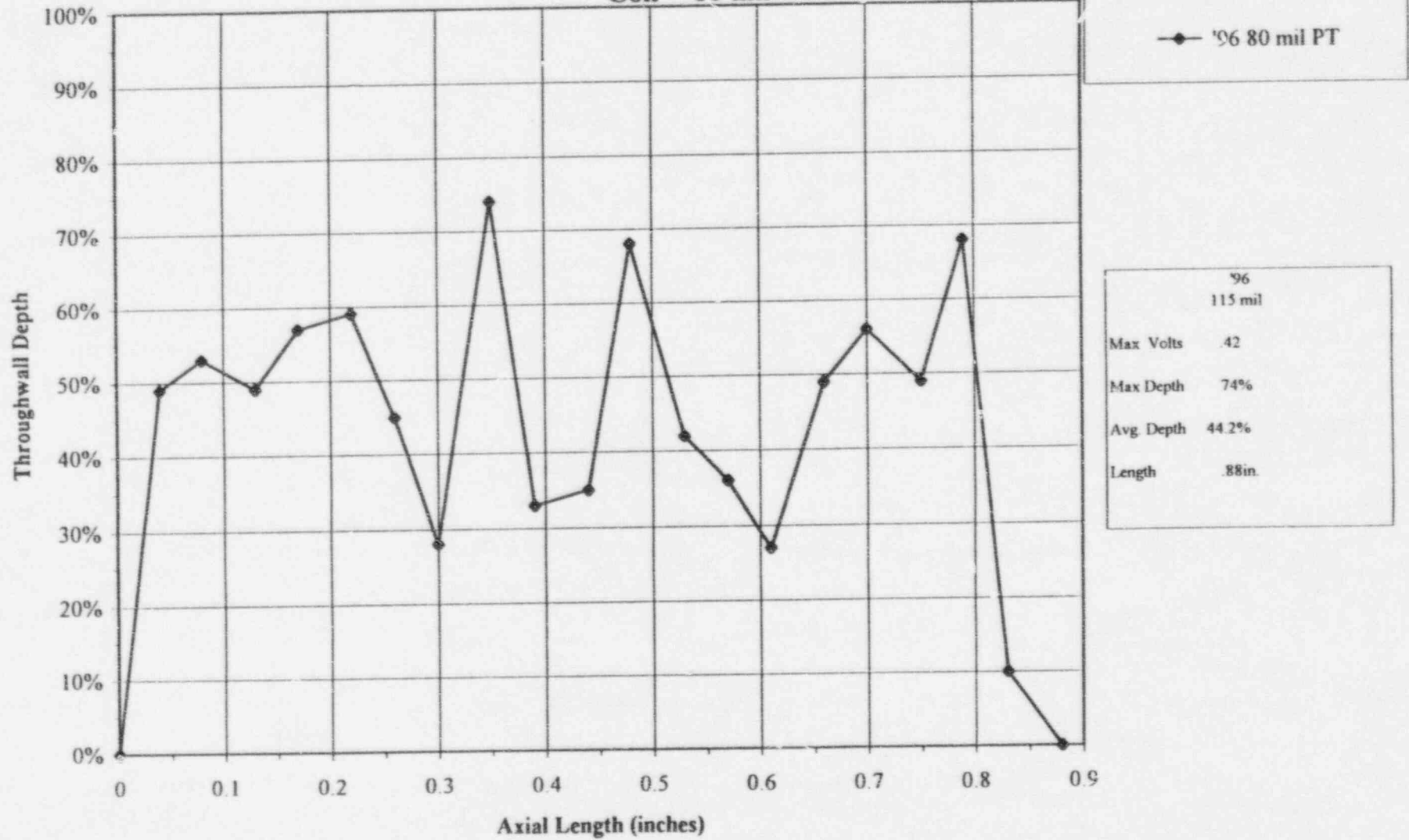
ECC95 04/05/96 10:01:05

# Beaver Valley-1 1996 Pulled Tubes Sludge File Indication, SG C, R16C28



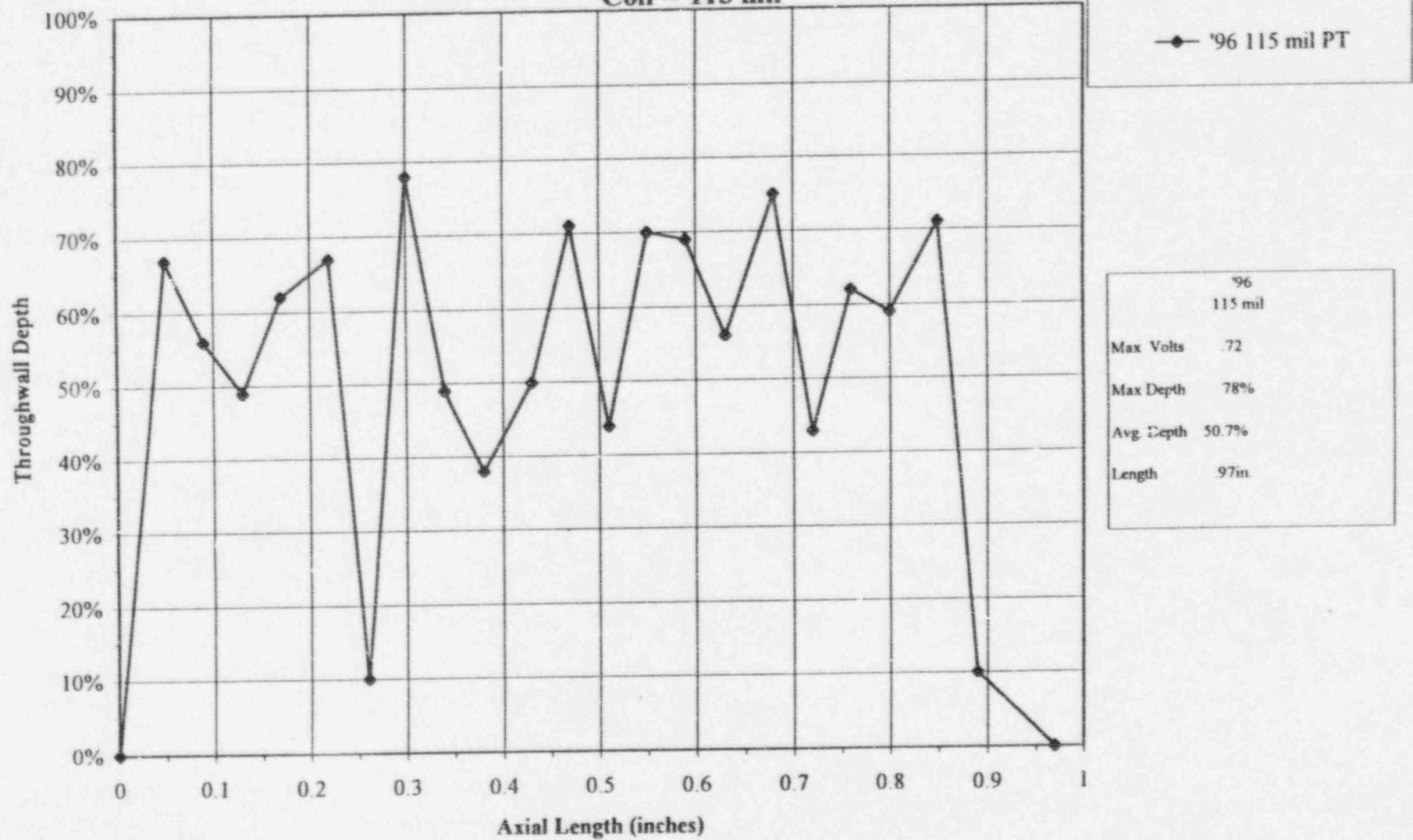


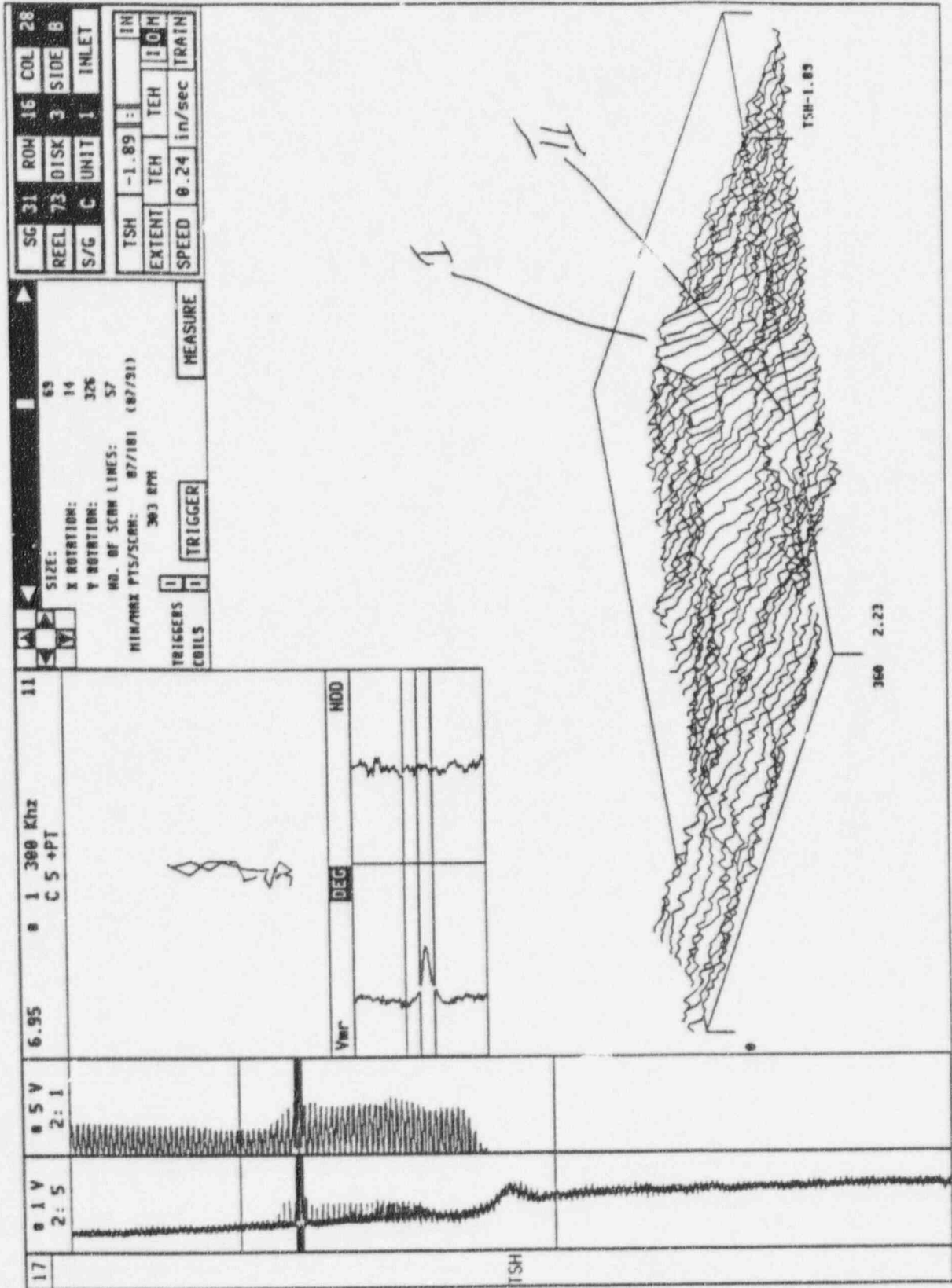
Beaver Valley-1 1996 Pulled Tubes  
Sludge Pile Indication, SG C, R16C28  
Coil -- 80 mil



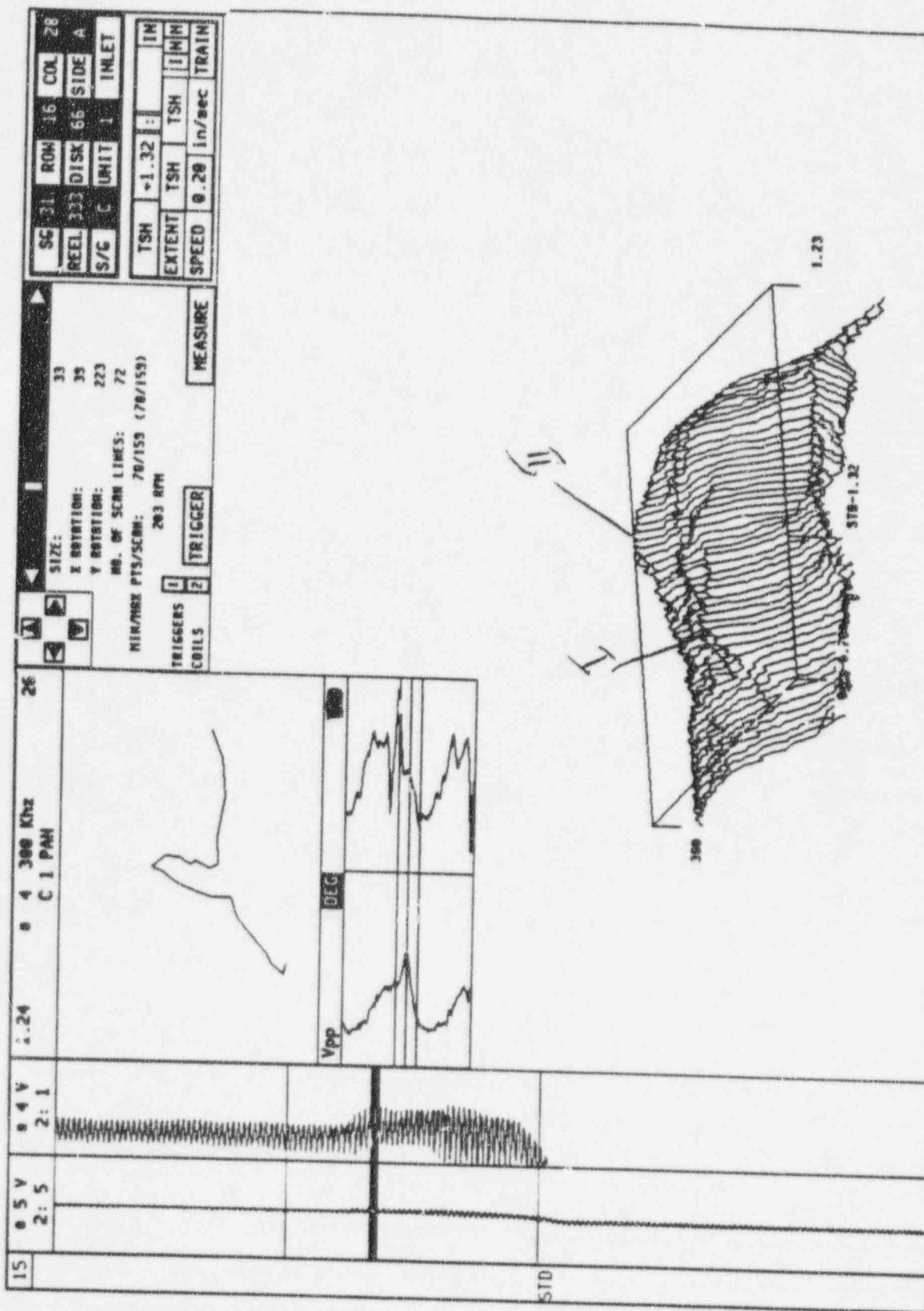


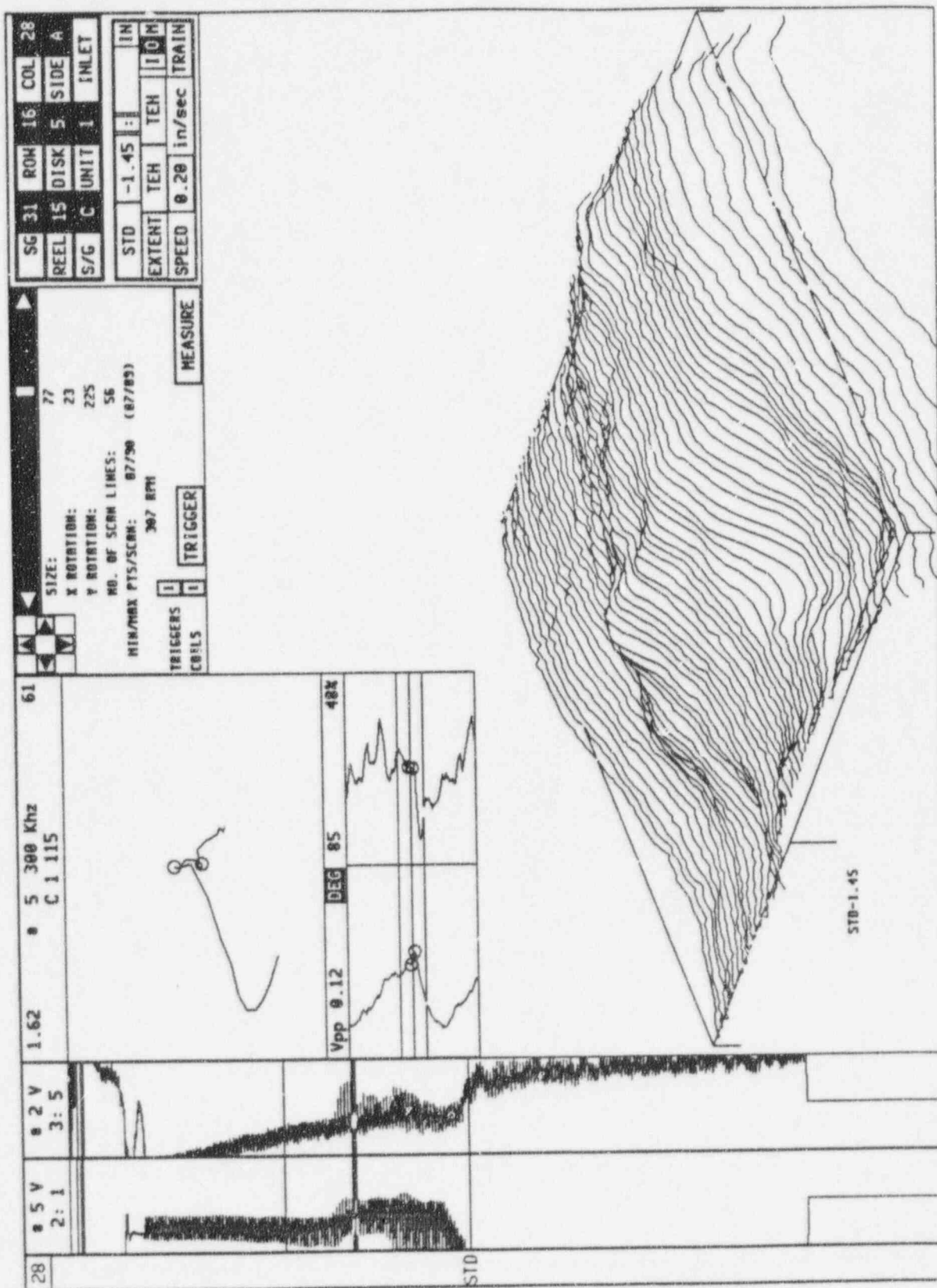
**Beaver Valley-1 1996 Pulled Tubes  
Sludge Pile Indication, SG C, R16C28  
Coil -- 115 mil**





EC179 04/24/96 08:08:21





**Beaver Valley-1 1996 Pulled Tubes  
Sludge Pile Indication, SG C, R18C36  
Coil -- + Point**

