

CENPS-OP

MEMORANDUM FOR RECORD

23 July 1990

SUBJECT: DECISION ON THE SUITABILITY OF DREDGED MATERIAL TESTED UNDER PSDDA CRITERIA FOR THE BP OIL COMPANY FERNDALE REFINERY DEEPENING PROJECT (OYB-2-013470) TO BE DISPOSED OF AT A PSDDA OPEN-WATER DISPOSAL SITE.

1. The following summary reflects the PSDDA agencies' (Corps, Department of Ecology, Department of Natural Resources and the Environmental Protection Agency) consensus decision on the acceptability of the sampling plan and all relevant test data to make a determination of suitability of the 569,000 cubic yards of material proposed for dredging from the BP Oil Company project site for disposal at a PSDDA open-water site.
2. The PSDDA-approved sampling and testing plan was followed, and quality assurance/quality control guidelines specified by PSDDA were generally complied with. The data gathered were deemed sufficient and acceptable for regulatory decision-making under the PSDDA program.
3. Sixteen dredged material management units were characterized. Nine of these units consisted of surface sediments while seven were made up of subsurface sediments. Samples comprising these composites were taken at thirty-five field sampling locations.
4. Chemistry data indicated that no detected exceedances of the 1989 PSDDA screening levels (SL) occurred for any of the sixteen analyses. For all sixteen analyses however the detection limit for 1,2,4-trichlorobenzene exceeded the SL of 6.4 ug/kg for that chemical. Archived sediment was not available for reanalysis and it was deemed unreasonable to require resampling in light of the following:
  - 1,2,4-trichlorobenzene was undetected in all analyses.
  - The exceedances were marginal, ranging from 6.6 to 7.9.
  - 1,2,4-trichlorobenzene was undetected at all sampling locations in the partial characterization at detection limits ranging from 3.9 to 4.2.
  - all other chlorinated benzenes were undetected at detection limits below SL for all analyses.
  - no other organics were detected above SL.
  - There is no source of 1,2,4-trichlorobenzene in the project vicinity.

The weight of evidence strongly indicates that 1,2,4-trichlorobenzene is not a problem chemical and there is no reason to believe it exists at the project site.

5. Based on the chemistry results no bioassays were required.
6. Based on the above discussion and summary of chemical results for the BP Oil Company project area, the PSDDA agencies concluded that all 569,000 cubic yards of proposed dredged material were suitable for unconfined open-water disposal at either a PSDDA dispersive site or nondispersive site.

BP OIL COMPANY  
OYB-2-013470

Concur:

23 July 1990  
Date

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Seattle District Corps of Engineers

23 July 1990  
Date

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BP FERNDALE DOCK DREDGING  
SURFACE COMPOSITE SCHEME

4-6

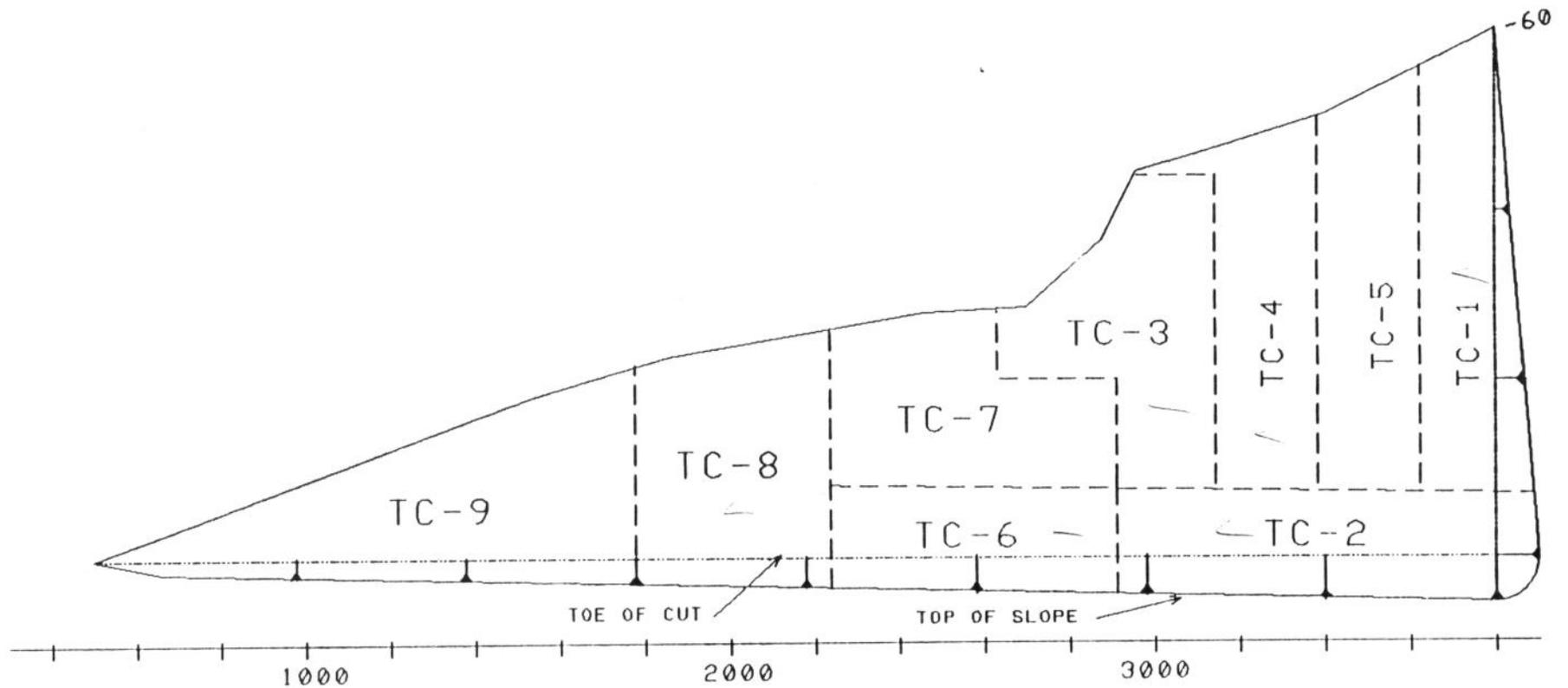


Figure 4-2. Surface Composite Scheme

BP FERNDALE DOCK DREDGING  
SUBSURFACE COMPOSITE SCHEME

4-7

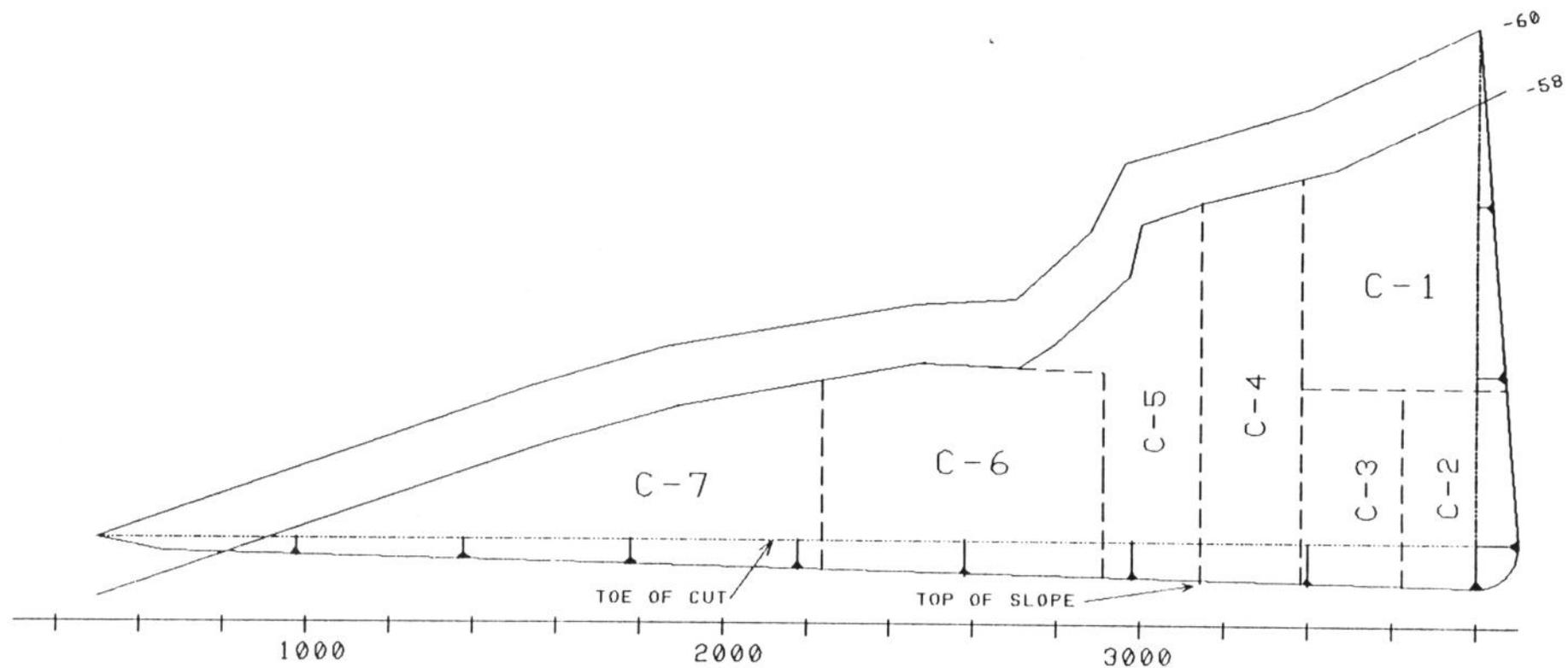
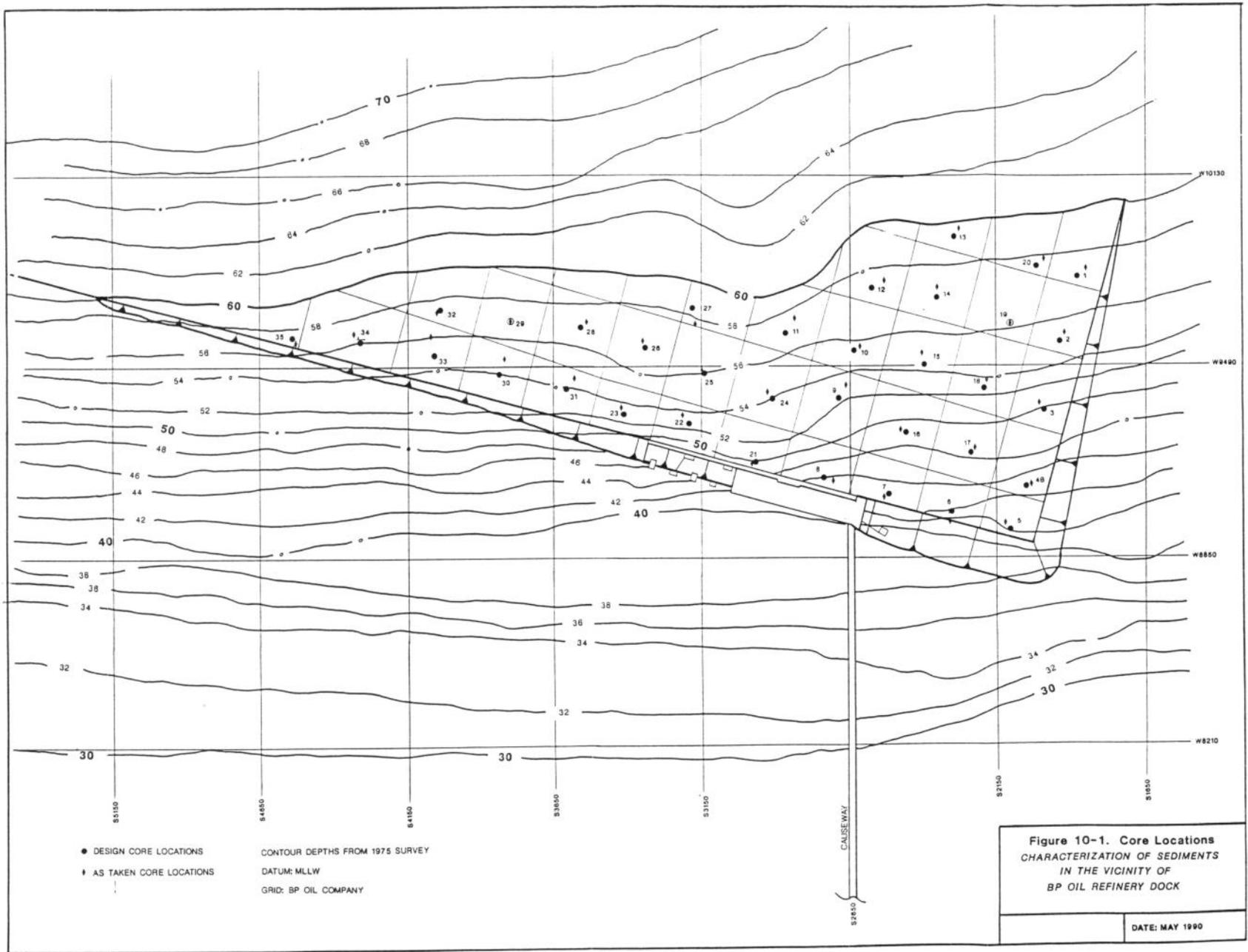


Figure 4-3. Subsurface Composite Scheme



# BP FERNDALE DOCK DREDGING

4-2

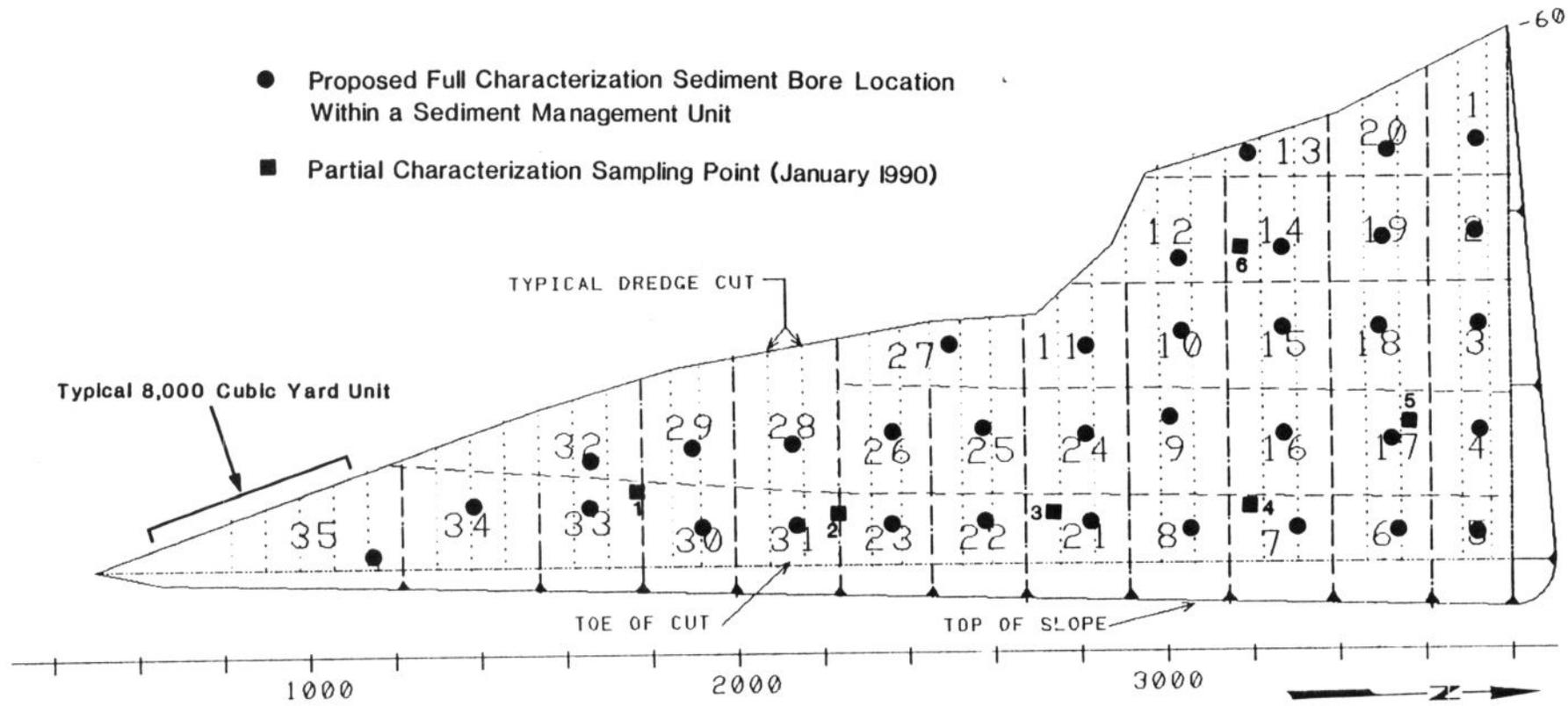


Figure 4-1. Sediment Units and Sampling Locations for BP Ferndale Refinery Dock Dredging and Reconstruction Project

TABLE 4-1

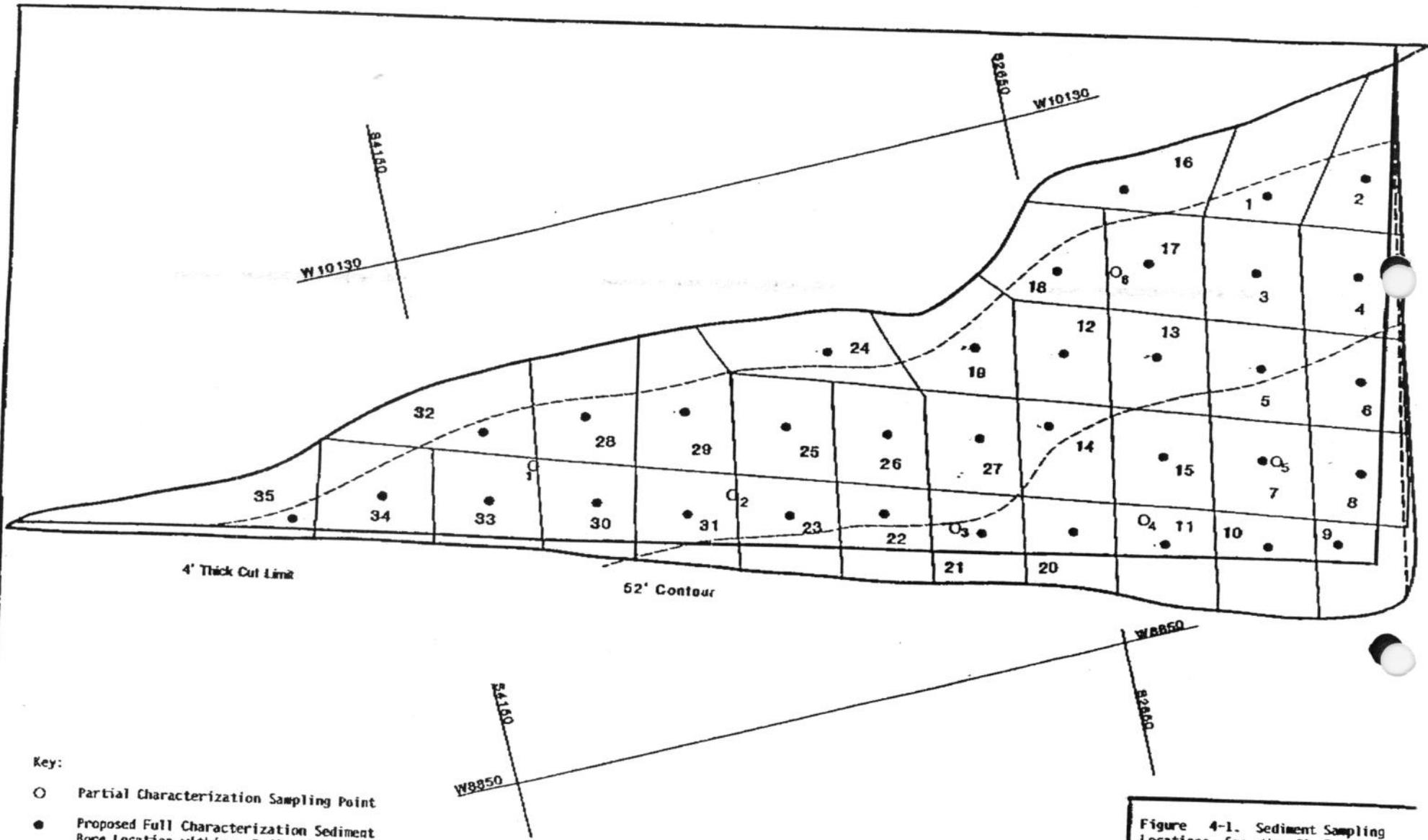
## BP OIL DOCK DREDGING COMPOSITE SCHEME

## Compositing of Top 4 Feet of Dredge Prism:

Corps Reference Code	Plan Composite Number (From Figures)	Samples Compositied (Top 4 Feet)				Volume Represented (cubic yards)
C-1	TC-1	1	2	3	4	32,000
C-2	TC-2	5	6	7	8	32,000
C-3	TC-3	9	10	11	12	32,000
C-4	TC-4	13	14	15	16	31,800
C-5	TC-5	17	18	19	20	32,000
C-6	TC-6	21	22	23		24,000
C-7	TC-7	24	25	26	27	32,000
C-8	TC-8	28	29	30	31	32,000
C-9	TC-9	32	33	34	35	32,000

## Composite of Rest of Dredge Area:

Corps Reference Code	Plan Composite Number (From Figures)	Samples Compositied (In Collection Order)				Volume Represented (cubic yards)
C-10	C-1	1B	2B	3B,C	18B,C	37,200
C-11	C-2	4B,C,D,E	5B,C,D,E			37,300
C-12	C-3	6B,C,D,E	17B,C,D			44,400
C-13	C-4	7B,C,D,E 16B,C,D	14B	15B		48,000
C-14	C-5	8B,C,D 12B	9B,C	10B	11B	41,100
C-15	C-6	21B,C 25B	22B,C 26B	23B,C	24B	48,100
C-16	C-7	28B 32B	29B 33B	30B 34B	31B 35B	33,100

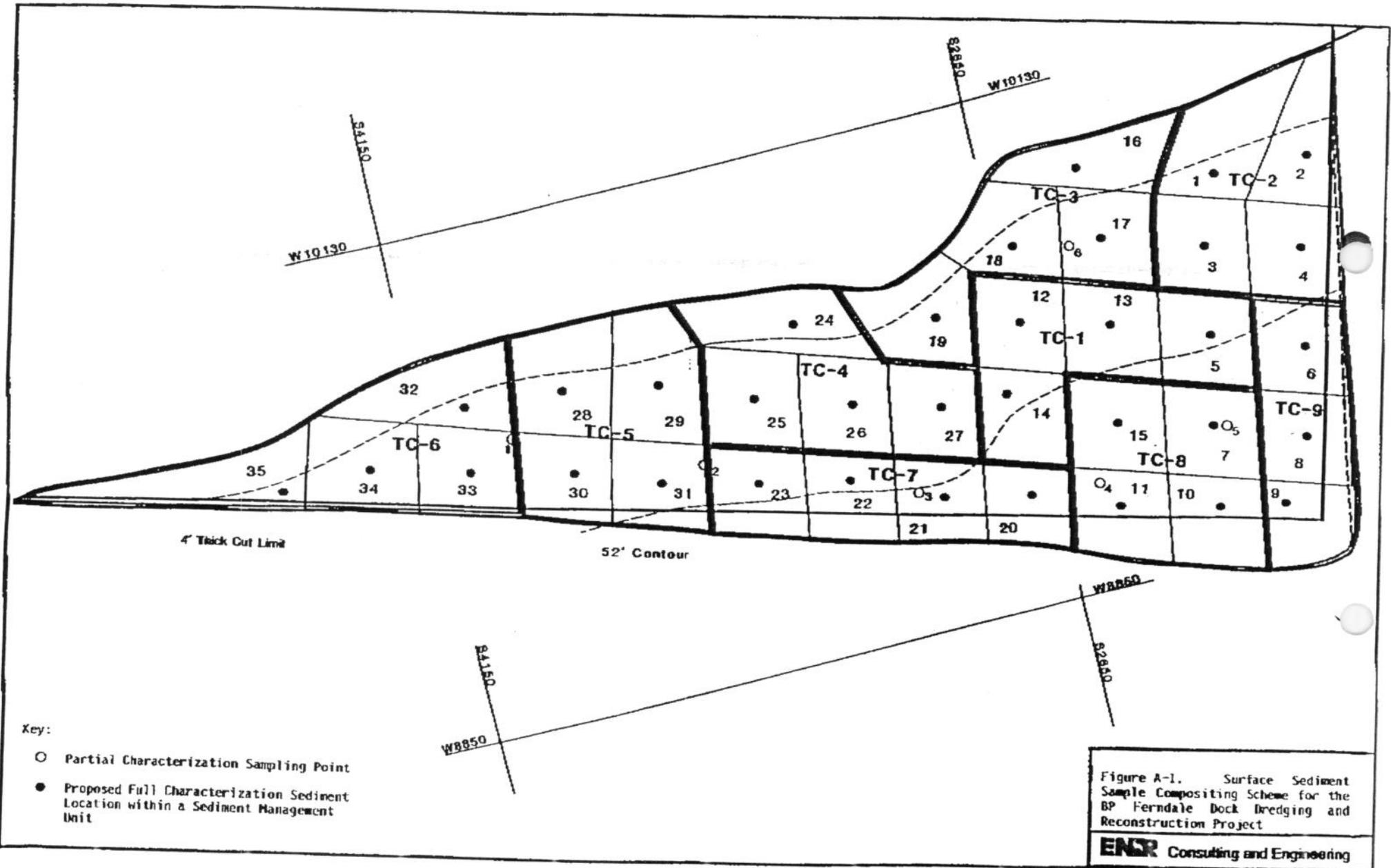


Key:

- Partial Characterization Sampling Point
- Proposed Full Characterization Sediment Bore Location within a Sediment Management Unit

Figure 4-1. Sediment Sampling Locations for the BP Ferndale Refinery Dock Dredging and Reconstruction Project

**ENR** Consulting and Engineering



Key:

- Partial Characterization Sampling Point
- Proposed Full Characterization Sediment Location within a Sediment Management Unit

Figure A-1. Surface Sediment Sample Compositing Scheme for the BP Ferndale Dock Dredging and Reconstruction Project

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