→ Binyoti Felix - SER Milw Annex
Richards St.

February 27, 1997

IN REPLY REFER TO: FID #241378280
Milwaukee Co.
ER/SFND

Mr. Russell Hart, RPM
U.S. EPA Region 5, HSR-6J
77 W. Jackson Blvd.
Chicago, Ill 60604

Please comment DSDP on circled items. Thanks, Gary E

SUBJECT: Integrated Review of Soil and Groundwater Remedy Letter Submittal, Moss-American (Kerr-McGee) Superfund Site, Milwaukee, WI

Dear Russ:

We've reviewed Weston's January 20, 1997 letter to you on the above-referenced subject, as well as your January 27, 1997 telefax presenting your thoughts on the letter submittal. We have the following comments for your consideration, following the numbering in the letter:

General

As noted below, this submittal is incomplete in terms of discussing remedy revision issues for the Wood Treating site. While it clarifies some issues, it apparently relies on a number of earlier submittals, which we also found incomplete. Given the scope of the revisions, we suggest that a single "mini-feasibility" type submittal for the Wood Treating site be submitted prior to preparation of the planned ROD amendment, but after the parties agree on a course of action. Another such submittal could be prepared for the River portion of the site.

Soil Remedy Description

1. Soil Treatment:

a. It's not clear how the residual concentration levels (RCLs) for protection of the groundwater were determined. It is not clear which levels were used. Which compounds were used and at what concentrations? Was this based on the November 19, 1996 Weston submittal prepared for the November 21, 1996 meeting? That submittal was marked "preliminary, issued for discussion".

b. We have not concurred with the 78 mg/kg soil standard for LTTD treatment, as outlined in previous correspondence.

c. The areas and volumes of soil remediation should only be presented as very rough, initial estimates, requiring refinement through discrete sampling. The areas may change based on discrete confirmation sampling. As outlined in section F of our February 1, 1995 comments on the Predesign Submittals, the composite soil

sampling results should not be used to determine the exact areas requiring remediation, nor for exact volume calculations. Additional discrete sampling will be needed to determine the exact extent of the remediation.

d. Thermal desorption effectiveness should be determined based on actual field pilot tests at this site. We are willing to consider variable redisposal unit design standards for thermally treated soil, based on actual field results, as alluded to in your January 27th telefax.

2. Treated Soil Management:

a. We suggest that treated material be managed in one unit rather than spreading it around the site in various areas that may need remediation using a cover. It should be managed in an area that is has as great a separation to groundwater as possible. As stated above, we are willing to discuss variable unit (liner, if necessary and cover) designs based on actual LTTD effectiveness determined in the field.

b. We have outlined our concerns about the aggregate/asphalt and 6" soil cover proposals in point A.5. of our December 6, 1996 letter to you. Those concerns have not been addressed yet.

3. Untreated Surface Soil Exceeding NR 720 Direct Contact/Human Health Standards:

a. It's not clear how the residual concentration levels (RCLs) for protection from direct contact determined. It is not clear which levels were used. Which compounds were used and at what concentrations? Was this based on the November 19, 1996 Weston submittal prepared for the November 21, 1996 meeting? That submittal was marked "preliminary, issued for discussion".

b. See 2.b., above, which is a valid comment for this as well.

c. Comments A.1. and 2. of our December 6, 1996 letter to you have not been addressed yet. Soils that pose a threat to surface water and sediment must be addressed.

d. Apparently, a soil performance standard is being proposed for direct contact. Guidance on performance standards under NR 720 has just been finalized, copy attached. The details of the maintenance, monitoring and inspection of any covers should be discussed now so we can determine if those measures will be adequate. It should be noted that such measures would likely have to be in place into perpetuity, given the recalcitrant nature of the contaminants, and we understand the Consent Decree binds Kerr-McGee to site monitoring

and maintenance for only 30 years. We suggest that financial responsibility be provided in the form of a fund or bond guaranteeing long-term site maintenance that could be utilized by the agencies should Kerr-McGee not be able to meet its obligations for site care. Further discussion of the deed restrictions proposal should be provided, including information on if the current property owners will agree to such measures, and for how long they will be in place.

4. Sediment Management (at the Wood Treating site):

   a. The CERCLA preference for treatment should be considered for these materials.

   b. Regarding your 1/27 telefax, ch. NR 718, Wis. Adm. Code, is not applicable to the management of hazardous waste, so it's not applicable to the managed river sediments. The standards in the ch. NR 600 series are applicable. Also, as we discussed recently by telephone, the contaminated soils and/or sediments may have too high a fines content to be useful in an asphalt mix, and their may be liability and direct contact concerns associated with such use of the material.

   c. The minimum design we may be willing to accept for an untreated sediment redisposal unit is outlined in the first point #2 of our letter to you of January 15, 1997. We believe in place recompaction of clay for a liner and 12" of clay and 6" of topsoil for a cover are not considered acceptable engineering designs for this purpose, as they will not provide reliable containment over time. For example, simply recompacting the clay in place does not account for clay quality variability, and will likely have areas that will leak leachate. No leachate collection is proposed. A 12" clay cover is subject to drying, frost and rooting damage.

<u>Consistency of Soil Remedy with Proposed Groundwater Remedy</u>

1. We continue to believe that containment of the plume and the NAPL to prevent discharges to the river should be part of the initial phase of the groundwater remedy. Our comments on this are outlined in our October 14, 1996 letter to you commenting on the 60% groundwater design. We have reviewed Weston's letter of February 3, 1997 replying to our October 14, 1996 letter in this regard and have not changed our position on this issue. We should also note that we are working on a more comprehensive response to their February 3, 1997 letter. This submittal requires input from our recently assigned Hydrogeologist.

2. Removal, treatment and proper management of soils exceeding NR 720 RCLs at levels agreed upon by our agency for protection of groundwater is an important part of an acceptable revised remedy for the site. This appears to be part of

this proposal, however, we do have the concerns noted in comment #1.a., above, under the Soil Remedy Description heading about what those levels should be.

3. As stated in earlier correspondence, there has yet to be a demonstration on how the proposed groundwater remedy will achieve groundwater remediation goals. Our letter of October 11, 1996 letter to Gary Deigan and comment A.2. of our October 14, 1996 letter to you outline what these goals are.

Thank you for the opportunity to comment. Please contact us should you have any questions.

Sincerely,

Gary A. Edelstein, P.E., Waste Management Engineer
Bureau for Remediation and Redevelopment
Internet E-Mail: edelsg@dnr.state.wi.us

Noted: _____
Dale Ziege, Chief
Policy Coordination Section

cc: Jim Schmidt/Binyoti Felix - SED
Gary Deigan - Weston
A. Keith Watson - Kerr McGee

Banyoti Felix - ER
For your file

Discussion Points
Moss-American Site
Re: Jan. 20, 1997 Submittal
Soil and Groundwater Remedy

Soil Treatment - Weston notes seven site areas where soils are projected to undergo treatment, based on excess benzo-a-pyrene equivalent concentration, presence of free-product that will not be remediated by on-going free-product recovery system, and soils with potential to exceed NR 720/140 migration to groundwater standards. With regard to this last point, four RI soil samples are noted as having excess groundwater migration potential, with apparent comparison to Table 1 as noted in NR 720.09(4)(b).

My observation is that this seems basically a sound approach, however NR 720.11(2)(b) should also be considered. This contains a footnote indicating that while PAHs are generally of concern only as a direct contact threat because of their relatively low migration potential, the specific PAH of naphthalene appears to be an exception.

Treated Soil Management/Untreated Surface Soil - Some combination of either 6" of soil and vegetative cover (or, on railroad property possibly asphalt cover) is proposed after treatment. If indeed the "Average B-A-P" soil concentrations after treatment as listed in Jan. 20 submittal Table 2 are attained in the field, then there may be merit for less rigorous covering than the 2' soil cover as envisioned by the ROD. For recreational usage, where per 10/18/95 WDNR calculation 49 mg/kg B-A-P appeared to satisfy the exposure scenario, areas T4-T7 are well below this value. Area T1, on railroad property, is a borderline case regarding achievement of an industrial exposure scenario ranging from 3.9 to 6.2 mg/kg. Hence, greater protection provided by a cover for this area may be necessary. It occurs to the reviewer that flexibility may be needed in the field pending actual treatment results obtained before a commitment to a given cover dimension is made. If treatment results are well below contact threats for a given exposure scenario, then a less rigorous cover approach may be appropriate. If potential threat after treatment is above a value derived for a given scenario, then a default/conventional cover dimension may be justified. If the situation is borderline, then perhaps some hybrid thickness could be considered. Such reasoning might govern untreated areas as well.

Sediment Management - The submittal appears to use the reasoning that since sediments (on average?) for segments 1-4 are under 78 mg/kg B-A-P that no treatment of sediments is justified. The reviewer does not necessarily agree with the specific reason cited, but rather notes that a possible consideration for not treating sediments pertains more to the logistics of the situation where it may be somewhat difficult to segregate higher PAH/lower PAH sediment portions once remediation begins. (Note - for discussion purposes, do these sediments constitute "solid waste" excavated during a response action as envisioned by NR 718?) If not immediately, then after some dewatering or leachate collection step is performed? If so, then does NR 718.05, Storage of Contaminated Soil, become relevant for consideration?

If so, this may bring up a point regarding when asphalt could be presumed to be "impermeable". NR 718.05(2)(c) discusses "impervious base", and lists asphalt as one such material a responsible

party could use on which to store no more than 2500 cubic yards of contaminated soils for no more than 6 months. In discussion with EPA personnel, while the Agency may recognize asphalt as protective in terms of eliminating a direct contact threat, the Agency does not recognize asphalt as impermeable - for reasons of cracking/maintenance - for groundwater protection purposes. Can it be inferred from 718.05 that if asphalt maintenance were performed at a minimum of every six months that it might be deemed acceptable to help alleviate groundwater infiltration problems assuming complementary underlying soil/membrane?

If, for railroad property, it were deemed feasible to incorporate site contaminated soils within some on-site hot-mix asphalt matrix, then would NR 718.09 be appropriate for consideration?

R. Hart RDHart
1/27/97

Bonyoti Felix-SER
For your file

Roy F. Weston, Inc.
Suite 400
3 Hawthorn Parkway
Vernon Hills, Illinois 60061-1450
847-918-4000 • Fax 847-918-4055

20 January 1997

Mr. Russell D. Hart (HSRW-6J)
Remedial Project Manager
U.S. Environmental Protection Agency
77 W. Jackson Blvd.
Chicago, IL 60604

Work Order No. 02687-007-002-0070

Re: Moss-American Site, Milwaukee, Wisconsin
Integrated Review of Soil and Groundwater Remedy

Dear Mr. Hart:

It is apparent from recent meeting discussions, Agency comments received on the 60% groundwater design submittals, and various WDNR correspondence that a more integrated overview of the soil and groundwater remedy is necessary. This transmittal presents additional illustration and description of the elements of KMCC's proposed soil remedy, and thereby assists in further understanding its important relationship to the three-phased groundwater remedial system. We hope this and the other recent transmittals we have prepared will assist in further substantiating the proposed remedies, reconciling technical differences, and allowing the remedy amendment process to proceed in a timely and cost-effective manner. Further, upon final design, we believe the proposed remedy will meet substantive state and federal ARARs or, if necessary, justifiably receive appropriate waivers.

Soil Remedy Description

KMCC/WESTON propose to implement the following elements of the soil remedy for the Moss-American site, as illustrated in the enclosed Figures 1 and 2.

1. Soil Treatment—Treat "source" soil located throughout the site having CPAH concentrations in excess of 78 mg/kg benzo-a-pyrene equivalent concentrations, having demonstrated mobile free product presence that is not remediated by the ongoing Phase I groundwater remediation/free-product recovery system operations, and having soil concentrations exceeding NR720/140 migration to groundwater standards. Such source soil will be treated via thermal desorption technology mobilized and operated on the Moss-American site. Figure 1 depicts seven areas of the site (designated as Areas T1 through T7) wherein excavation and thermal desorption treatment will be implemented. Table 1 presents a summary of the locations, depths, quantities, and rationale for soil proposed to be treated. Table 2 presents the anticipated reduction in PAHs and CPAHs that may be expected to be achieved at the site using typical commercially available on-site thermal desorption technologies. Figure 1 illustrates site soil areas proposed for remediation using thermal treatment.

2. Treated Soil Management—Thermally-treated soil will be managed by regrading the soil on the Moss-American site, outside of the boundaries of the 100-year floodplain. For compatibility with site land use and to eliminate the potential for direct contact, treated soil will be covered with either aggregate/asphalt (on the railroad property) or 6-inch topsoil and native vegetation (on the County property and certain areas of railroad property). Figure 2 depicts the areas proposed to receive treated soil and its cover system.

3. Untreated Surface Soil Exceeding NR 720 Direct Contact/Human Health Standards— Untreated surface soil having CPAH concentrations in excess of direct contact human health protection standards, but less than 78 mg/kg b-a-p equivalent concentration, will be covered to prevent direct contact. The cover system for these areas (shown in Figure 2) will consist of 6 inches of topsoil and vegetation. Table 3 shows the areas and volumes of cover. The cover system will maintain integrity via monitoring, inspection, and maintenance as part of the site's long-term O&M program.

4. Sediment Management—Sediment excavated from the Little Menomonee River (LMR) will be placed and covered on the Moss-American site. Sediment CPAH concentrations in the four segments of the LMR are below the 78 mg/kg b-a-p equivalent standard for thermal treatment, as summarized in Table 4. Thus, sediment in river segments 1, 2, 3, 4 does not merit thermal treatment due to its low CPAH concentrations. Other treatment technologies have been demonstrated to be ineffective at these low CPAH concentrations.

   In lieu of treatment, sediment will be placed in an engineered containment area on-site to prevent direct contact and minimize migration potential. Figure 2 depicts a sediment management/disposal containment area on-site to accommodate the anticipated volume of sediment (15,000 to 20,000 cubic yards) estimated to be generated by the LMR remediation. Residual CPAHs in sediment will be managed via engineered soil containment. The sediment disposal area will have an in situ clayey soil liner prepared and recompacted prior to sediment deposition. A final soil cover system will be placed atop the graded and compacted sediment. The soil cover system will include:

- 6 inches of topsoil and vegetation.
- 12 inches of recompacted low permeability clay.

Upon closure, the engineered on-site sediment disposal area will be compatible with existing/surrounding land use and be monitored and maintained within the scope of the site's long-term O&M Plan. Site security fencing and deed restrictions will provide appropriate institutional controls.

Consistency of Soil Remedy with Proposed Groundwater Remedy

KMCC's soil and sediment remedy is proposed to include measures that work effectively with the three-phased groundwater remedy. To clarify and reiterate, the three phases of the groundwater remedy are proposed to include:

- Phase 1 - Ongoing free-product recovery system operations.
- Phase 2 - Installation and operation of the upper tier of the funnel and gate containment and treatment system. Optimization of the gate design/ treatment system will be developed during Phase 2.
- Phase 3 - Installation and operation of the lower tier of the funnel and gate containment and treatment system. This phase will include installing and operating optimized gate treatment configurations developed during Phase 2.

Phase 1 will continue to be implemented in advance of the soil remedy to reduce the occurrence of free-phase constituents. Phase 2 will be installed and implemented following soil remediation in Areas T1 and T2, as these contaminant "source" areas may interfere with the operation of the Phase 2 groundwater remedy. Phase 3 will be installed and implemented following completion of the soil remedy and an initial period of Phase 2 operation. Phase 3 represents the complete long-term groundwater remedial system. Phase 3 includes any system enhancements developed during Phase 2 and its operating effectiveness will be improved by the completed contaminant source removal affected by the thermal desorption soil remedy.

The groundwater remedy will include a groundwater monitoring network and O&M program that will be designed to monitor effectiveness of the groundwater remedy and the residual soil/sediment containment remedy. Figure 2 depicts the potential post-remedy layout of the site and generally illustrates the relationship between the soil and groundwater remedies.

Mr. Hart, we trust this transmittal provides clarification and further rationale for KMCC's remedy proposal for the Moss-American site. Our next transmittal, being prepared under separate cover, includes responses to Agency review comments on the 60% groundwater remedial design documents. We believe these two transmittals and the materials we prepared and presented during our 21 November 1996 meeting provide sufficient technical information for a mutual agreement on the remedy concepts, while reserving further details for the remedial design phase.

We look forward to your concurrence with the proposed remedy.

Very truly yours,

ROY F. WESTON, INC.

Gary J. Deigan
Principal Project Manager

GJD/slr
Attachments

cc: G. Edelstein, WDNR
K. Watson, KMCC

Table 1

Potential Thermal Desorption Soil Quantities
Moss-American Site
Milwaukee, Wisconsin

Site Location	Rational for Treatment (See Note 2)	Area (sq ft)	Anticipated Average Depth (bgs)	Quantity (c.y.-Bank Measure)	Quantity[1] (c.y.-Loose)	Quantity of Clean Imported Backfill[3] (cu yd)
Area T1	A, B	11,360	8.5 ft	3,580	4,470	NA
Area T2	C	11,030	12 ft	4,900	6,130	NA
Area T3	C	8,070	10 ft	3,000	3,750	3,750
Area T4	A, C	13,300	10 ft	4,930	6,160	6,160
Area T5	A, B	2,690	4 ft	400	500	500
Area T6	A	4,540	4 ft	700	880	NA
Area T7	A, B	3,930	8 ft	1,200	1,500	NA
GRAND TOTAL				18,710	23,390	9,910

[1] The loose volume was calculated by multiplying the bank measure volume by a swell factor of 25%.

[2] The following codes indicate the rational for treating the soil in the referenced area:

A. Area above 78 mg/kg based on benzo(a)pyrene equivalents.
B. RI soil sample where the migration to groundwater residual contaminant levels were exceeded.
C. Area of potential free-product presence in subsurface.

[3] Clean backfill will be placed within Areas T3, T4, and T5 because these areas are located within the floodplain. The treated soil from areas T1, T2, T6, and T7 will be placed back into the excavation.

Table 2

Summary of Potential Effluent Soil Concentrations
Low Thermal Temperature Desorption System
Moss-American Site
Milwaukee, Wisconsin

Compound Type	Area[1]	Average Influent Soil Concentrations (mg/kg)	Maximum Influent Soil Concentrations (mg/kg)	Average Effluent Soil Concentrations[2] (mg/kg)	Maximum Effluent Soil Concentrations[2] (mg/kg)	Average B-A-P Equivalent Soil Concentrations (mg/kg)	Maximum B-A-P Equivalent Soil Concentrations (mg/kg)
PAHs	T1	7,789	23,600	142	407	NA	NA
	T4	4,299	7,254	86	151	NA	NA
	T5	7,191	7,191	140	165	NA	NA
	T6	9,166	19,638	172	371	NA	NA
	T7	10,090	10,140	186	211	NA	NA
CPAHs	T1	799	1,750	29	64	6	13
	T4	557	831	21	30	4	5
	T5	857	1,038	32	38	6	7
	T6	1,143	2,813	47	122	9	22
	T7	343	1,029	11	33	2	6

NA - Not applicable.

[1] Areas T2 and T3 represent areas to be thermally treated due to the presence of free product. Influent concentrations are not currently available for these areas.

[2] Effluent soil concentrations are based on efficiency of the low thermal temperature desorption system at an operating temperature of 1100° F .

Table 3

Potential Areas to Receive an Asphalt/Soil Cover
Moss-American Site
Milwaukee, Wisconsin

Site Location	Area (sq ft)	Percentage of Area Currently Covered with Asphalt/Railroad Tracks	Volume of Soil Cover (cubic yards)[1]
Area C1	2,360	100%	0
Area C2	14,740	100%	0
Area C3	53,800	50%	1,150
Area C4	92,000	0%	1,960
Area C5	5,840	0%	130
Total			3,240

[1] Includes an additional 15% of material to account for compaction. Soil cover is assumed to be locally available topsoil placed to a thickness of 6 inches.

Table 4

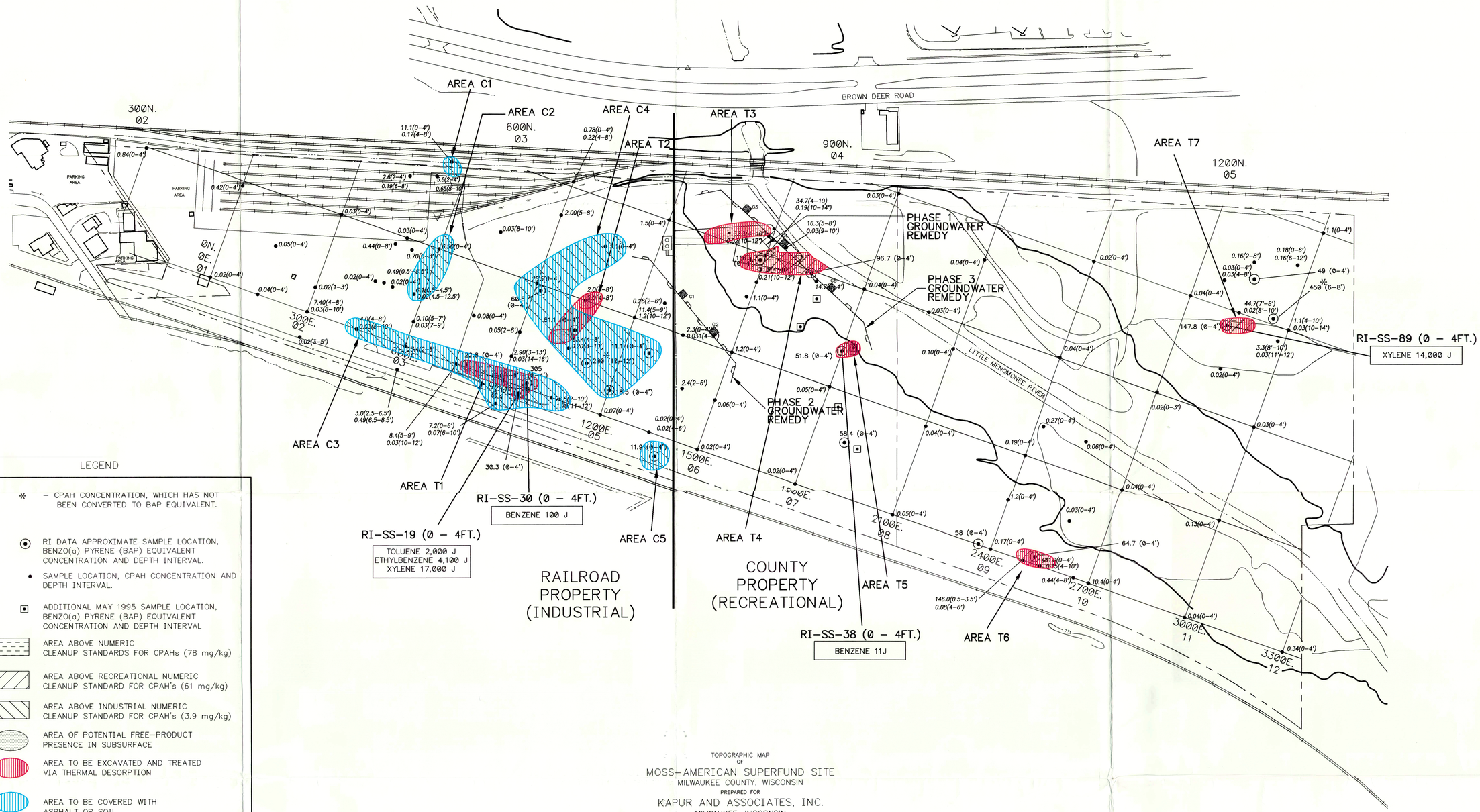
Summary of Main Channel Sediment CPAH Concentrations
Little Menomonee River
Milwaukee, Wisconsin

River Segment	Total CPAHs (mg/kg)		CPAHs Expressed as BAP Equivalents (mg/kg)	
	Approximate Range	Average	Approximate Range	Average
1	3.5 - 420	71	0.9 - 79	14.0
2	9.3 - 170	60	2.7 - 47	13.5
3	1.4 - 61	24.1	0.4 - 12.9	5.4
4	1.6 - 33	11.3	0.5 - 8.1	2.7

Note:

Average concentrations are believed to be representative of the sediment mass following excavation, dewatering, and transport to the site.

12



LEGEND

- ✲ – CPAH CONCENTRATION, WHICH HAS NOT BEEN CONVERTED TO BAP EQUIVALENT.
- ⊙ RI DATA APPROXIMATE SAMPLE LOCATION, BENZO(a) PYRENE (BAP) EQUIVALENT CONCENTRATION AND DEPTH INTERVAL.
- • SAMPLE LOCATION, CPAH CONCENTRATION AND DEPTH INTERVAL.
- ⊡ ADDITIONAL MAY 1995 SAMPLE LOCATION, BENZO(a) PYRENE (BAP) EQUIVALENT CONCENTRATION AND DEPTH INTERVAL
- AREA ABOVE NUMERIC CLEANUP STANDARDS FOR CPAHs (78 mg/kg)
- AREA ABOVE RECREATIONAL NUMERIC CLEANUP STANDARD FOR CPAH's (61 mg/kg)
- AREA ABOVE INDUSTRIAL NUMERIC CLEANUP STANDARD FOR CPAH's (3.9 mg/kg)
- AREA OF POTENTIAL FREE-PRODUCT PRESENCE IN SUBSURFACE
- AREA TO BE EXCAVATED AND TREATED VIA THERMAL DESORPTION
- AREA TO BE COVERED WITH ASPHALT OR SOIL
- SHEET PILE CONTAINMENT FUNNEL

RI-SS-30 (0 – 4FT.) SOIL SAMPLE WHERE THE MIGRATION TO GROUNDWATER RESIDUAL CONTAINMENT LEVELS WHERE EXCEEDED

NOTE:
THE SAMPLE CPAH CONCENTRATIONS LISTED ON THIS FIGURE ARE PRESENTED IN UNITS OF BENZO(a)PYRENE EQUIVALENT CONCENTRATIONS (mg/kg).

ACCURACIES NOT GUARANTEED IN OBSCURED AREAS SHOWN BY DASHED CONTOURS AND UNDERLINED ELEVATIONS

ABRAMS AERIAL SURVEY CORPORATION
124 NORTH LARCH LANSING, MI 48912
PO Box 15008 LANSING, MI 48901-5008

N

0 300'

SCALE

DATE OF PHOTOGRAPHY APRIL 16, 1991

TOPOGRAPHIC MAP OF
MOSS-AMERICAN SUPERFUND SITE
MILWAUKEE COUNTY, WISCONSIN
PREPARED FOR
KAPUR AND ASSOCIATES, INC.
MILWAUKEE, WISCONSIN
SHEET 11

DATE: 20 JANUARY 1997
REVISION: 0

RON-01/13/97-15:58-J:\CAD93\500\50296

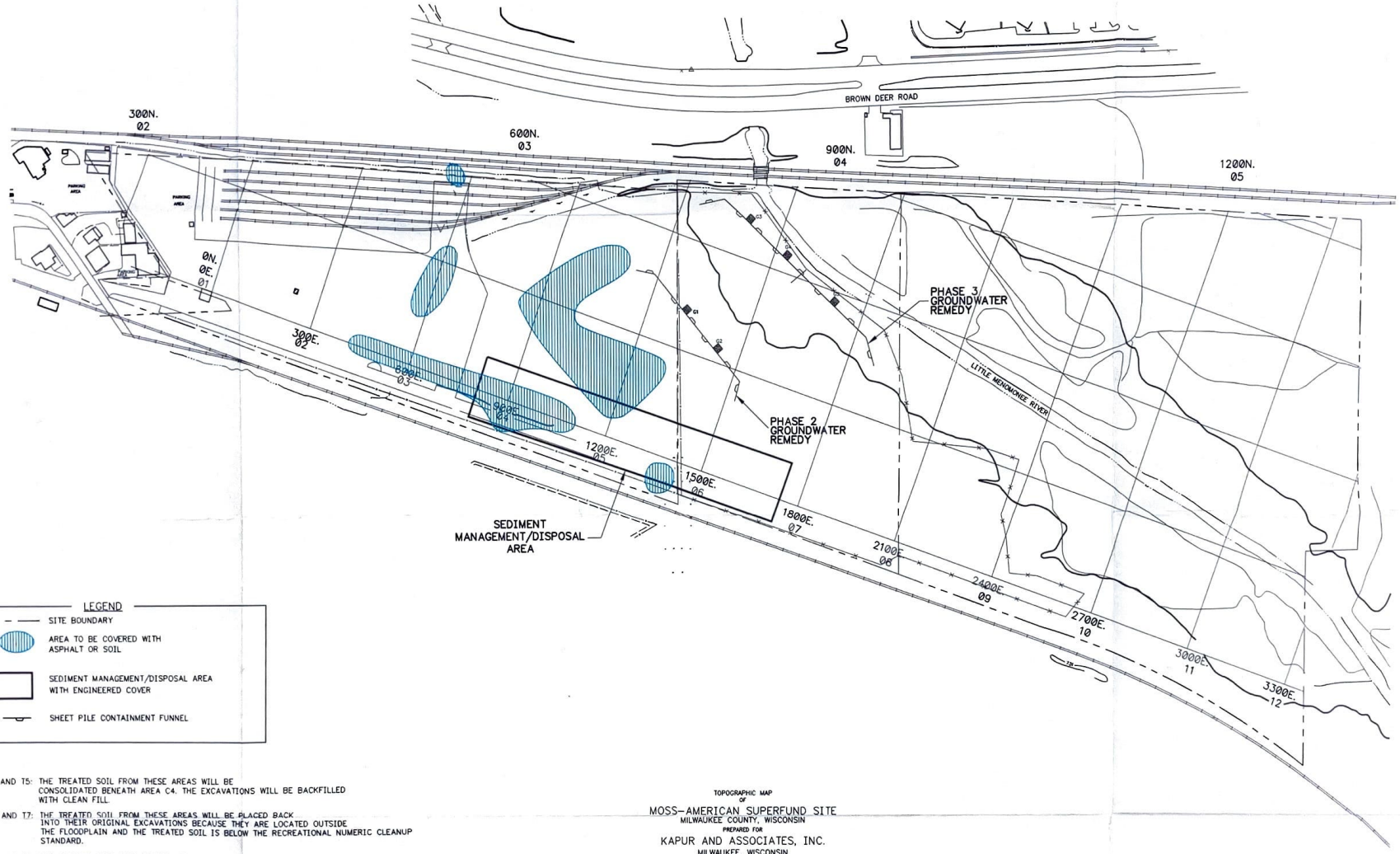
WESTON MANAGERS DESIGNERS/CONSULTANTS
Three Hawthorn Parkway
Vernon Hills, Illinois
60061

RECEIVED JAN 24 1997 BUREAU FOR REMEDIATION & REDEVELOPMENT

FIGURE 1

PROPOSED REMEDIAL ALTERNATIVE FOR SOIL AND GROUNDWATER
MOSS – AMERICAN SITE
Milwaukee, Wisconsin

BRRTS Duplicate



LEGEND

- SITE BOUNDARY
- AREA TO BE COVERED WITH ASPHALT OR SOIL
- SEDIMENT MANAGEMENT/DISPOSAL AREA WITH ENGINEERED COVER
- SHEET PILE CONTAINMENT FUNNEL

NOTES:

AREAS T3, T4, AND T5: THE TREATED SOIL FROM THESE AREAS WILL BE CONSOLIDATED BENEATH AREA C4. THE EXCAVATIONS WILL BE BACKFILLED WITH CLEAN FILL.

AREAS T6 AND T7: THE TREATED SOIL FROM THESE AREAS WILL BE PLACED BACK INTO THEIR ORIGINAL EXCAVATIONS BECAUSE THEY ARE LOCATED OUTSIDE THE FLOODPLAIN AND THE TREATED SOIL IS BELOW THE RECREATIONAL NUMERIC CLEANUP STANDARD.

AREAS T1 AND T2: THE TREATED SOIL FROM THESE AREAS WILL BE PLACED BACK INTO THEIR ORIGINAL EXCAVATIONS AND COVERED.

TOPOGRAPHIC MAP OF
MOSS-AMERICAN SUPERFUND SITE
MILWAUKEE COUNTY, WISCONSIN
PREPARED FOR
KAPUR AND ASSOCIATES, INC.
MILWAUKEE, WISCONSIN
SHEET 11

N

0 300'

SCALE

DATE OF PHOTOGRAPHY: APRIL 15, 1991

ACCURACIES NOT GUARANTEED IN OBSCURED AREAS SHOWN BY DASHED CONTOURS AND UNDERLINED ELEVATIONS

ABRAMS AERIAL SURVEY CORPORATION

DATE: 20 JANUARY 1997
REVISION: 0

RECEIVED JAN 4 1997

WESTON MANAGERS DESIGNERS/CONSULTANTS
Three Hawthorn Parkway
Vernon Hills, Illinois
60061

FIGURE 2

POST REMEDIATION SITE CONDITIONS

MOSS – AMERICAN SITE
Milwaukee, Wisconsin