GIS REGISTRY INFORMATION

SITE NAME:	Superior Refi	inery/Murphy Oi					,			
BRRTS #:	02-16-222617	7			FID	#				
					(if ap	opro	oriate	э):		
COMMERCE #	54880-0456-0	07								
(if appropriate):										
CLOSURE DATE:	December 09	•								
STREET ADDRESS:	1	n Ave								
CITY:	Superior									
SOURCE PROPERTY		DINATES	X =	361703			Y =	6930	79	
(meters in WTM91 pro	jection):							<u> </u>		
CONTAMINATED ME	DIA:	Groundwater		Soil			Bot	th	Х	
OFF-SOURCE GW CO	ITANIMATIC	ION >ES:	Y	'es			No		X	
 IF YES, STREET A 	ADDRESS:									
 GPS COORDINAT 	ES 2	X =			Y =					
(meters in WTM91 pro										
OFF-SOURCE SOIL (CANIMATION	TION	Yes		No	X				
>Generic or Site-Spe		SRCL):							***************************************	
 IF YES, STREET A 					,					
 GPS COORDINAT 	'	X =			Y =					
(meters in WTM91 pro										
CONTAMINATION IN	RIGHT OF W				No	X			····	
		DOCUME	ITS N	EEDED						
Closure Letter, and any con	ditional closure le	letter issued								Х
Copy of most recent deed, i	ncluding legal de	escription, for all aff	ected pr	operties						X
Certified survey map or rele	vant portion of th	he recorded plat ma	p (if refe	renced in the legal o	lescript	ion) fo	or all a	ıffecte	d properties	X
County Parcel ID number, it	used for county,	, for all affected pro	perties							Х
Location Map which outlines a	all properties within o	contaminated site bound	aries on	USGS topographic m	ap or pl	at map	in suf	ficient d	etail to permit th	eΧ
parcels to be located easily (8.5x potable wells within 1200' of the s		If groundwater standard	s are exc	eeded, the map must	t also in	clude 1	the loc	ation of	all municipal an	đ
***************************************		ties, showing buildings	, roads, p	property boundaries,	contam	inant s	sources	a, utility	lines, monitorin	g X
Detailed Site Map(s) for all wells and potable wells. (8.5x14' way in relation to the source prop	', if paper copy) This	is map shall also show t	he locatio	n of all contaminated	public s	streets	, highw	ay and	railroad rights-o	
exceeding ch. NR 720 generic or		to the boundaries of gr	Juniawate:	- CONTAINING OF CACE		1. 1411	140	is and s	On Containment	
Tables of Latest Groundwat	er Analytical Res	sults (no shading or	cross-h	atching)						Х
Tables of Latest Soil Analyt	ical Results (no s	shading or cross-ha	tching)							Х
Isoconcentration map(s), if and extent of groundwater contar								hould ha	ave flow direction	ΛX
GW: Table of water level el	evations, with sar	mpling dates, and fi	ee prod	uct noted if prese	nt		······································	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		X
GW: Latest groundwater flo	ow direction/mon	nitoring well location	n map (s	hould be 2 maps	if max	imum	varia	tion in	flow direction	
is greater than 20 degrees) SOIL: Latest horizontal ext	ant of contaminat	tian avacading con-	sia as Ci	SDCI a with and						
				SKCLS, With one (ontou	ı				X
Geologic cross-sections, If	requirea for Si. (8	o.ox14° if paper copy								Х
RP certified statement that	legal descriptions	s are complete and	accurate	}.						Χ
Copies of off-source notific	ation letters (if ap	oplicable)								
Letter informing ROW owne	r of residual cont	tamination (if applic	able)(pu	ıblic, highway or r	ailroad	ROV	V)			目
Copy of (soil or land use) do	eed restriction (s)) or deed notice if a	y requi	red as a condition	of clo	sure				X

Cory L. Nettles, Secretary



December 09, 2004

Liz Lundmark Murphy Oil USA Inc 2407 Stinson Ave Superior, WI 54880

RE: F

Final Closure

Commerce # 54880-0456-07L WDNR BRRTS # 02-16-222617 Superior Refinery/Murphy Oil, 2400 Stinson Ave, Superior

Dear Ms. Lundmark:

The Wisconsin Department of Commerce (Commerce) has received all items required as conditions for closure of the site referenced above. This case is now listed as "closed" on the Commerce database and will be included on the Wisconsin Department of Natural Resources (WDNR) Geographic Information System (GIS) Registry of Closed Remediation Sites to address residual contamination. It is in your best interest to keep all documentation related to the environmental activities that were conducted.

If residual contamination is encountered in the future, it must be managed in accordance with all applicable state and federal regulations. If it is determined that any remaining contamination poses a threat, the case may be reopened and further investigation or remediation may be required.

Thank you for your efforts to bring this case to closure. If you have any questions, please contact me in writing at the letterhead address or by telephone at (608) 261-7718.

Sincerely,

Will M. Myers Geologist Site Review Section

cc: Dennis Kugle, Gannett Fleming, Inc.

BUREAU OF PECFA

P.O. Box 8044

Madison, Wisconsin 53708-8044 TDD #: (608) 264-8777 Fax #: (608) 267-1381

http://www.commerce.state.wi.us http://www.wisconsin.gov Jim Doyle, Governor Cory L. Nettles, Secretary



September 2, 2003

Liz Lundmark Murphy Oil USA 2400 Stinson Ave PO Box 2066 Superior, WI 54880

RE:

Conditional Case Closure

Superior Refinery/Murphy Oil, 2400 Stinson Ave, Superior

Dear Ms. Lundmark:

The Wisconsin Department of Commerce (Commerce) has reviewed the additional information prepared and provided by your consultant, Gannett Fleming Inc., for the site referenced above. Commerce has determined that this site does not pose a significant threat to the environment and human health if the following condition is met. No further investigation or remedial action is necessary.

The following condition must be satisfied to obtain final closure:

A deed restriction (including Figures and Tables referenced below) shall be recorded with the county Register of Deeds and attached to the property deed. A copy of the Deed restriction and attached information including the Register of Deeds recording information on it, shall be submitted to Commerce. This restriction is being required as a result of elevated levels of residual soil contamination on-site. Residual soil contamination is present at levels above the established standards indicating a direct contact threat to human health. The restriction requires limited access to the site. To comply with the requirement of limited access, fencing that encompasses the site which restricts access to the site shall remain in place until it is determined that the threat to human health has been remediated. Any person entering the site must be knowledgeable of the contamination that is present and wear appropriate personal protective gear. Figures 6 and 7, and Tables 3, 4, 5, 6 and 7 (Included with the GIS Registry packet) must be attached to the Deed Restriction when recorded with the Register of Deeds, and include recording information when submitted to Commerce.

A draft copy of the deed restriction is enclosed for your convenience. If you prefer to draft your own restriction, you shall obtain departmental approval prior to recording the document with the Register of Deeds. If a document other than the document provided is recorded without approval, final closure will not be granted.

This letter serves as your written notice of "no further action". Timely filing of your final PECFA claim (if applicable) is encouraged. If your claim is not received within 120 days of the date of

Liz Lundmark

Commerce # 54880-0456-07 WDNR BRRTS # 02-16-222617

Superior Refinery/Murphy Oil, 2400 Stinson Ave, Superior

August 26, 2003

Page 2

this letter, interest costs incurred after 60 days of the date of this letter will not be eligible for PECFA reimbursement. Costs associated with recording the deed restriction are not eligible for PECFA reimbursement, and the recording of these notices should not delay the claim submittal process.

Thank you for your efforts to protect Wisconsin's environment. If you have any questions, please contact me in writing at the letterhead address or by telephone at (608) 261-5401.

Sincerely,

Shawn A. Wenzel Hydrogeologist

Site Review Section

Enclosure

Draft Deed Restriction

CC:

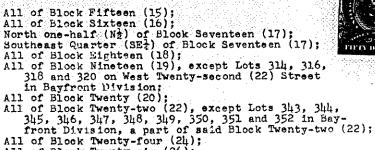
Dennis Kugle, Gannett Fleming, Inc.

Case File

THIS INDENTURE, Made by Lake Superior Refining Co., a Wisconsin corporation, grantor, of Douglas County, Wisconsin, hereby conveys and warrants to Murphy Corporation, a Louisiana corporation, grantee, whose principal office is in ElDorado, Union County, Arkansas, in accordance with the plan of complete liquidation and dissolution adopted by the Board of Directors and Stockholders of the grantor hereinabove mentioned, the following tracts of land and personal property in Douglas County, State of Wisconsin:



All of the following described lands being on West Twenty-third (23) Street, Townsite of Superior, in the City of Superior, Douglas County, Wisconsin:



All of Block Twenty-four (24); All of Block Twenty-six (26); All of Block Twenty-eight (28); All of Block Thirty (30);

The following described Lots being on West Twenty-fifth (25) Street in the Townsite of Superior, in the City of Superior, Douglas County, Wisconsin:

All of Block Thirteen (13), subject to the Northern Pacific Railway Company easement for a right-of-way on Newton Avenue;
All of Block Fourteen (14), subject to the Northern

All of Block Fourteen (14), subject to the Northern Pacific Railway Company easement for a right-ofway on Newton Avenue;

way on Newton Avenue;
All of Block Fifteen (15);
All of Block Sixteen (16);
All of Block Seventeen (17);
All of Block Eighteen (18);
All of Block Nineteen (19);
All of Block Twenty (20);
All of Block Twenty-one (21);



```
All of Block Twenty-two (22)
 All of Block Twenty-three (23):
 All of Block Twenty-four (24);
 All of block Twenty-five (25);
 All of Block Twenty-six (26);
All of Block Twenty-seven (27);
 All of Fractional Block Twenty-eight (28);
 All of Block Twenty-nine (29);
 All of Block Thirty (30);
 The following described Lot being on West Twenty-
 sixth (26) Street in the Townsite of Superior, in the City of Superior, Douglas County, Wisconsin:
 All of Block Thirty-two (32);
 The following described Lots being on West Twenty-
seventh (27) Street in the Townsite of Superior,
 in the City of Superior, Douglas County, Wisconsin:
 All of Block Nine (9);
All of Block Thirteen (13), subject to the Northern
Pacific Railway Company easement for right-of-way
     on Newton Avenue;
All of Block Fourteen (14), subject to Northern
Pacific Rellway Company easement for Fightwof way
All of Block Fifteen (15);
All of Block Sixteen (16);
All of Block Seventeen (17);
All of Block Eighteen (18);
All of Block Nineteen (19);
All of Block Twenty (20);
All of Block Twenty-one (21);
All of Block Twenty-two (22);
All of Block Twenty-three (23);
All of Block Twenty-four (24);
All of Fractional Block Twenty-five (25);
All of Block Twenty-six (26);
All of Fractional Block Twenty-seven (27);
All of Block Twenty-eight (28);
All of Block Twenty-nine (29);
All of Block Thirty (30);
All of Block Thirty-one (31);
All of Block Thirty-two (32), subject to the Northern
Pacific Railway Company easement for right-of-way
    on Newton Avenue;
The following described Lots being on West Twenty-
ninth (29) Street in the Townsite of Superior, in
the City of Superior, Douglas County, Wisconsin:
All of Block Seven (7):
All of Block Thirteen (13), subject to the Northern
     Pacific Railway Company easement for right-of-way
     on Newton Avenue;
All of Block Fourteen (14), subject to the Northern Pacific Railway Company easement for right-of-way
on Newton Avenue;
All of Block Fifteen (15);
```

All of Block Sixteen (16);
All of Block Seventeen (17);
All of Block Eighteen (18);
All of Block Nineteen (19);
All of Block Twenty (20);
All of Block Twenty-one (21);
All of Block Twenty-two (22);
All of Block Twenty-two (23);
All of Block Twenty-two (24);
All of Block Twenty-four (24);
All of Block Twenty-six (26);
All of Block Twenty-six (26);
All of Block Twenty-seven (27);
All of Block Twenty-seven (27);
All of Block Twenty-sight (28);
All of Block Twenty-nine (29);
That part of Block Thirty (30) lying East of the
East line of the Wisconsin Central Railway
Company right-of-way;
That part of Block Thirty-one (31) lying East of
the East line of the Wisconsin Central Railway
Company right-of-way;

Also the following easements:

- 1. A right-of-way easement five feet (5') in width for the purpose of laying, maintaining, operating, patrolling, altering, repairing, renewing and removing, in whole or in part, a six inch (6') supply pipe line for the transportation of crude petroleum from the storage tanks of the Lakehead Pipe Line Company, Inc. to the refinery owned and operated by Lake SuperiorRefining Co., together with the necessary fixtures, equipment and appurtenances over, through, upon, under, and across that portion of the Lakehead Pipe Line Company, Inc. property now traversed by said pipe line as it is presently leid and located; and as shown on the sketch or plat attached to that certein deed from Lakehead Pipe Line Company, Inc. to Superior Refinery Owners, Inc. dated July 23, 1952; and recorded in 232 of Deeds, page 231, in the office of the Register of Deeds for Douglas County, Wisconsin, together with the rights of ingress and egress to and from said right-of-way through and over said above described land for any and all purposes necessary to the exercise by the grantee of the rights therein granted. Said easement to be effective as long as crude oil is taken through the pipe line system of Lakehead Pipe Line Company, Inc., subject to the restrictions contained in said easement deed.
- 2. That certain easement for a six inch (6") pipe line between Superior Refinery Owners, Inc. and the tank farm of the Lakehead Pipe Line Company, Inc. located in the City of Superior, Douglas County, Wisconsin, and described as follows: Commencing at a point on Twenty-sixth Avenue East and East Twenty-third Street; thence generally in an Easterly direction along the North property line

of the Lakehead Pipe Line Company, Inc. to East Twentieth Street; thence in a Southeasterly direction to Tank No. 5, a total
distance of approximately eight hundred fifty
(850) feet, in the City of Superior, Douglas
County, Wisconsin; thence on East Twenty-third
Street from the Lakehead Pipe Line Company, Inc. property line to Twenty-third Avenue East; thence beneath the tracks of the Northern Pacific Railway Company on Newton Avenue on Twenty-fifth Avenue East (formerly Newton Avenue) and the tracks of the Northern Pacific Railway Company's ore dock line between Twenty-fifth Avenue East and Twentysixth Avenue East along a line parallel with and distant ten (10) feet Southwesterly, measured at right angles, from the center line of East Twenty-third Street in the City of Superior, Douglas County, Wisconsin; and thence crossing Block Nine (9) on West Twenty-third Street and Block Ten (10) on West Twenty-first Street, in the City of Superior, according to the recorded plat thereof, along a line parallel with and distant two hundred forty (240) feet Southerly, measured at right angles, from the center line of the main track of the Northern Pacific Railway Company's Oregon dock line as now constructed; and crossing the Northern Pacific Railway Company's property in Block Seven (7) on West Twenty-first Street in the City of Superior, Douglas County, Wisconsin, along a line parallel with and distant twenty-seven (27) feet, more or less, Northeasterly, measured at right angles, from the Southwesterly line of said Block Seven (7), from the Northwesterly line of said Block Seven (7), to a point distant two hundred fifty (250) feet Southerly, measured at right angles, from said track center line; together with all easements, rights, contracts, grants, licenses, assignments, and permits of any nature, whether oral or written, and whether recorded or unrecorded, and all rights and interests arising out of adverse possession, or use of any kind or nature respecting the laying of pipe lines used in connection with the operation of said refinery and belonging to Lake Superior Refining Co., or in which it has some right, title or interest, and the maintenance, use, operation, repair, replacement and removal thereof upon, over, under and across the lands of others, and all pipe or pipes, pumps, compressors, motors, valves, controls, meters and all other equipment and apparatus constituting a part of or used in the operation of said pipe lines, including but not limited to said six inch (6") pipe line between the tank farm of said Lakehead Pipe Line Company, Inc. and said refinery of Lake Superior Refining Co.

STORAGE	CAPACITY (BBLS)	CONSTRUCTION	
Present Tank Nos.			
40 and 41	5,000 each	Welded	
42	56,000	Welded	- 11000000
50 (F-2)	500	Welded	
51	2,300	Welded	
52	9,500	Welded	
53	20,000	Welded	
54	25,000	Welded	
51 52 53 54 60 and 61	5,000 each	Welded	
63 and 64	10,000 each	Welded	
65 and 66	16,500 each	Welded	
67 .	20,000	Welded	
68 and 69	48,000 each	Welded	
80 and 81	1,200 each	Welded, in	isulated
82 and 83	1,800 each	Welded, in	isulated
84 and 85	2,500 each	Welded, in	sulated
86 and 87	16,500 each	Welded	
88 and 89	35,000 each	Welded	
90 and 91	36,000 each	Welded	
92, 93, 94	1,700 each	Welded	
96	250	Welded	
F-1 (formerly B-1)		Welded	
S-1	600	Welded	医自己腺素
S-2	250	Welded	

PLATFORMING UNIT - NO.

- Platforming furnace Reactors (3)
- Exchangers heat
- Separator
- Compressors (2) Stabilizing tower
- Pumps and controls Platform control house
- Suction drum
- Stripper tower Absorber tower
- Amine regenerator

PLATFORMING UNIT - NO. 2

- Platforming furnace Reactors (3)
- Unifiners

- Exchangers heat Compressors (2) Stabilizing tower Pumps and controls Platform control house Suction drum
- Stripper tower

That part of the West one-half (W½) of Section Thirty-six (36), Township Forty-nine (49) North, Range Fourteen (14) West, more fully described as follows: Commencing at the North Quarter (N½) corner of said Section Thirty-six (36), thence due South along the North-South quarter line, being the center line of Bardon Avenue, a distance of 1456.64 feet to the South property line of Twenty-sixth (26) Avenue extended; thence South 48° 36' West along the South property line of Twenty-sixth Avenue, a distance of 481 feet to the point of beginning; thence continuing in the same straight line a distance of 1323.53 feet to a point; thence South 89° 46' West, a distance of 151.91 feet to a point; thence South 48° 36' West a distance of 162.43 feet to a point; thence South 41° 24' East, a distance of 751 feet to a point; thence North 48° 36' East, a distance of 1463.36 feet to a point on the West line of Bardon Avenue; thence due North along the West line of Bardon Avenue; a distance of 207.10 feet to a point; thence North 41° 24' West a distance of 495.66 feet to the point of beginning, containing 24.18 acres, more or less, all in the City of Superior, Douglas County, Wisconsin.

In the area covered by these descriptions most of the streets and alleys have been vacated. Where these descriptions abut on streets and alleys which have been vacated the title of Lake Superior Refining Co. extends to the center of such street or alley.

Also all buildings, structures, fixtures, machinery, equipment and tools comprising and used in and about the conduct and operation of the oil refinery of Lake Superior Refining Co., located upon the tracts of land above described or otherwise, and including but not limited to the following, to-wit:

l.	Ť,	STORAGE CAPACITY (BBLS)	CONSTRUCTION
		The Court of the William Court and	and the second second

Present Tank Nos.

A REAL OF BUREAU SECTION AND AND AND AND AND AND AND AND AND AN	a zirta Airi			
1, 2, 3 and 4	1.000	each	100	Welded
5 and 6	1,200	each		Welded
7, 8, 9, 10, 11	in salaalii			
and 12	2.600	each		Welded
13 and 14	3.500	each		Welded
15 (formerly 62	5.000			Welded
	25,000			Welded
25, 26 and 27	217,000			Welded
30, 31, 32, 33,				\$
34 and 35	5,000	each		Bolted
36 and 37	50,000			Welded
				Welded
38 and 39	15.000	each		Welded

- Crude furnaces (2)
- Exchangers heat
- Pumps and controls Crude Tower A Crude Tower B
- d.
- Condenser box and coils
- Receivers and caustic scrubbers

THERMAL CRACKING UNIT

- a. Cracking furnace b. Fractionating tower
- c. Reaction chamber
- Flash tower

- Stabilizing tower.
 Exchangers heat
 Condenser box and coils
 Pumps and controls
 Hot oil pump

ASPHALT UNIT

- a. Asphalt furnace
- Vacuum tower **b**.
- Oxidizing tower C.
- Exchangers heat
- Pumps and controls

POLYMERIZATION UNIT

- Poly furnace
- Compressor b.
- Poly tower
- Exchanger heat đ.
- 2 Reactors ٠.

BUILDINGS 7.

- Boiler house--contains two 35,000 lbs. per
 - hour steam boilers
- Boiler house -- contains two 10,000 lbs. per
 - hour steam boilers
- Pump and control house
- d. Transfer pump house e. Linde treating house
- f. Office building and addition g. Warshouse building

- Ethyl house Hot oil pump house Asphalt control and pump house
- Truck loading racks (2)
- Employees change house and addition No. 2 Unit control house

RAILROAD SIDINGS 8.

Ethyl unloading siding Double track crude unloading and product loading siding

Together with all of the Lake Superior Refining Co.'s right, title and interest in and to any and ell other buildings, structures, plants, facilities, fixtures and improvements and all other machinery, tools, apparatus, equipment, and all other personal property of whatsoever kind or nature now or hereafter located on the lands above described or located elsewhere and used or useful in connection with the conduct and operation of said refinery and pipe lines located on such lands and also any and all real property, rights, grants, liberties, estates, rights of way, servitudes, easements, franchises, privileges, immunities, consents, permits, patents and patent rights, licenses, leasing agreements, switch track agreements and leasing contracts now owned by Lake Superior Refining Co.

Subject to the rights of Lakehead Pipe Line Company, Inc. regarding some of the above captioned real estate to repurchase lands conveyed by Lakehead Pipe Line Company, Inc. upon discontinuance of the use of said lands for an oil refinery or allied purposes.

IN WITNESS WHEREOF, the said grantor has caused these presents to be signed by Russell Marks, its President, and attested by J. A. O'Connor, Jr., its Secretary, at El Dorado, Arkansas, and its corporate seal to be hereunto affixed this the 10th day of April, A. D. 1961, to be effective for all purposes as of 7:00 o'clock A. M. on January 1, 1961.

Signed and Sealed in Ternoe of: 00:0

LAKE SUPERIOR REFINING CO.

esident

ATTEST:

O'Connor, J. 70 Secretary.

/-8**-**

STATE OF AREASSAS) as.

A. D. 1961, Russell Marks, fresident, and J. A. O'Connor, Jr., Recretary of the above named corporation, to me known to be the persons who executed the forecoing instrument, and to me known to be such president and Secretary of said corporation, and acknowledged that they executed the foregoing instrument as such officers as the deed of said corporation, by its authority.

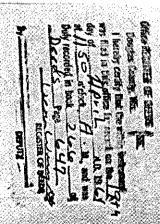
William J. Wynne Notary Public Union County, Arkansas

My Commission expires Sept. 1, 1962.

This instrument was drafted by Faul L. Witkin, Attorney.

--9-

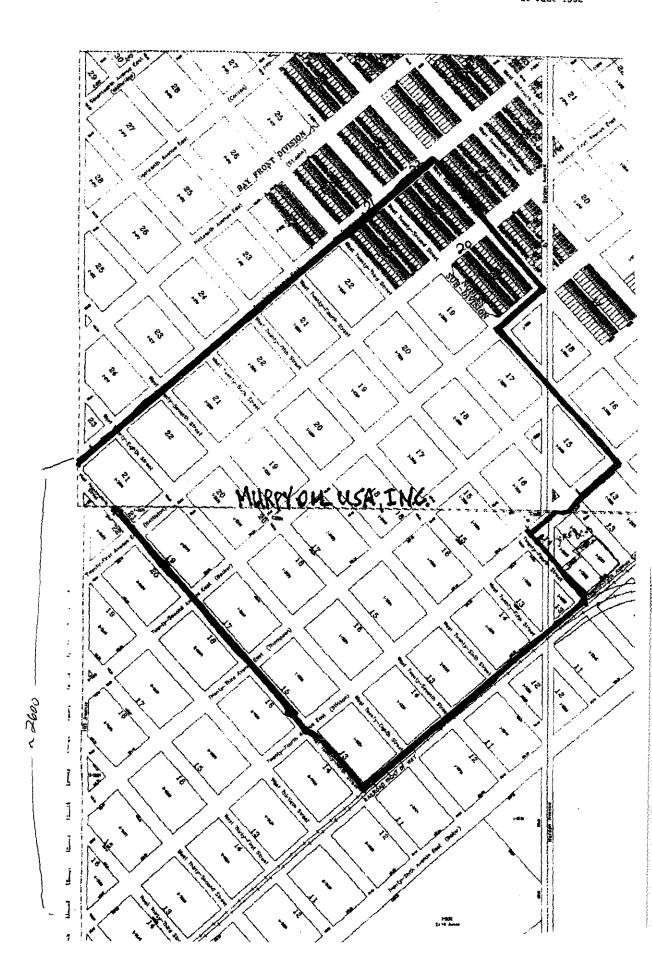
75.5 T. 13.4 T. 13.4



SOUTH 1/2 SEC.

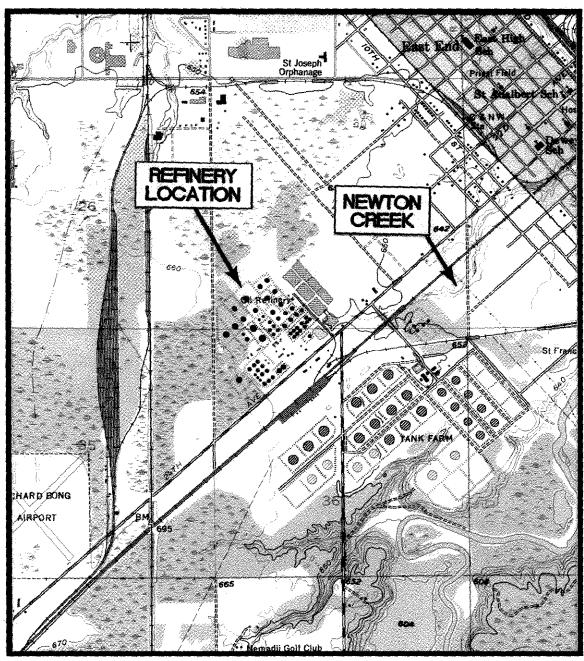
SCALE, IN FEET

Prepared By: Bouglas County Clerk's Office, R.W. 29 June 1992



Parcel Identification Number 01-801-03339-00

FIGURE 1



SCALE: 1 INCH = 2000 FEET CONTOUR INTERVAL = 10 FEET

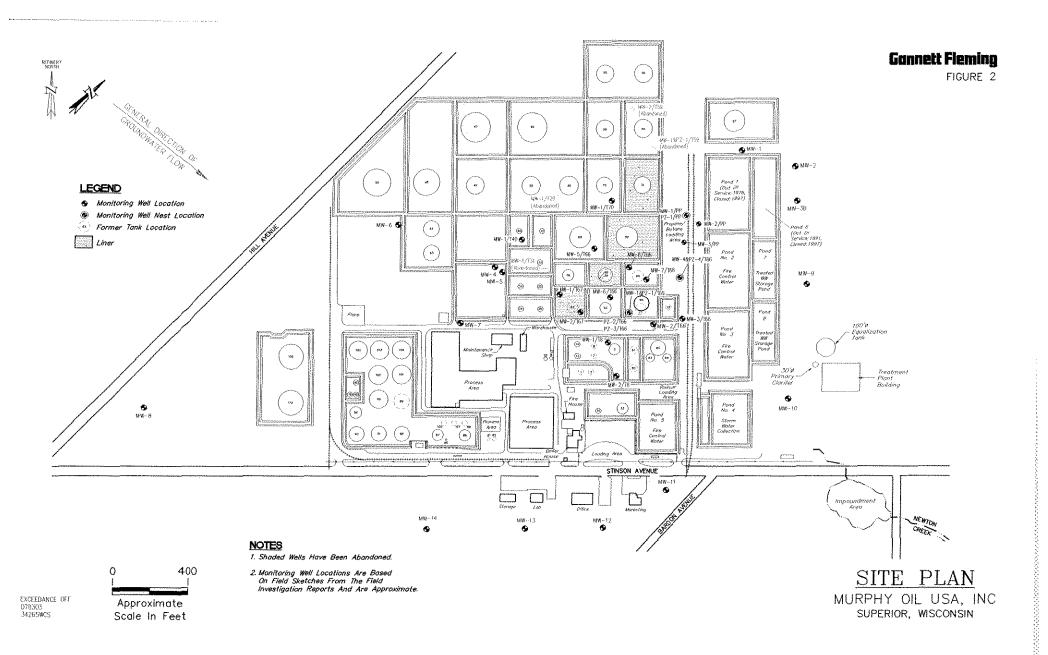


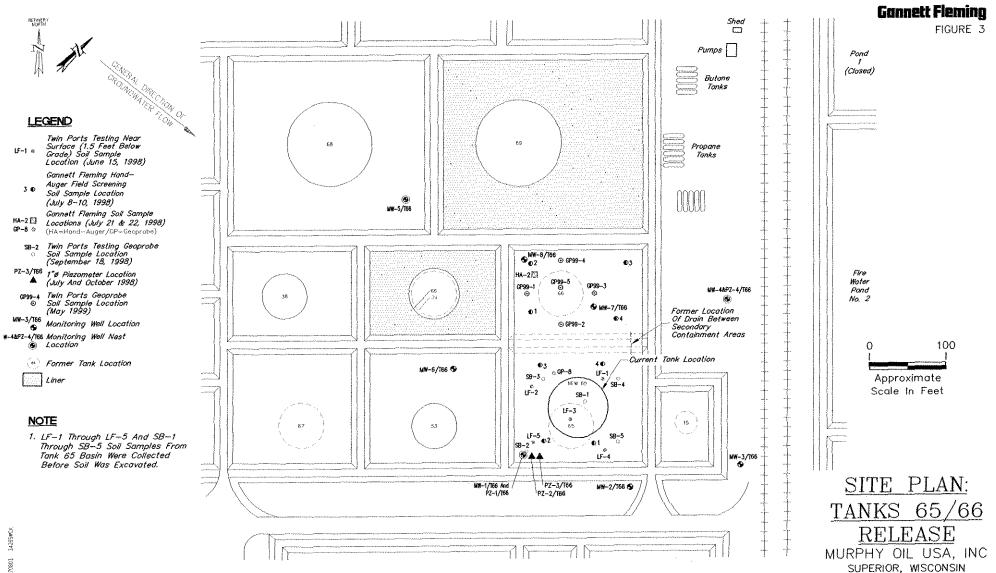
7.5 MIN TOPOGRAPHIC MAP SUPERIOR, WISCONSIN 1954 PHOTOREVISED 1983



LOCATION MAP

MURPHY OIL USA, INC. SUPERIOR, WISCONSIN





MURPHY OIL USA, INC SUPERIOR, WISCONSIN

TABLE 1

GROUNDWATER SAMPLING RESULTS - DETECTED COMPOUNDS TANK 66 RELEASE SITE (ug/l)

Well I.D. and						Parameter				
Sample Date	GRO	Benzene	Ethylbenzene	Toluene	Xylenes	Trimethlybenzenes	MTBE	Naphthalene	n-Butylbenzene	sec-Butylbenzene
MW-1/T66										
12/17/98	<30	4.9	<0.20	8.5	5.3	1.3J	<0.20	<1.1	<0.30	<0.20
04/06/99	<50	12.7	<0.20	10.7	11.18	1.33 <1.03	<0.20	<0.08		NA
06/01/99	11,600	1,200	55.4	3,340	2,810	743	<15	NA	NA NA	NA NA
07/09/99	13,800	988	56	4,590	3,030	503	<30	NA NA	NA NA	NA NA
09/09/99	23,800	835	522	5,480	7,940	2,175	<15	NA NA	NA NA	NA NA
12/10/99	8.390	85	<10.0	79.3	2,810	1,182	<6.0	NA NA	NA NA	NA NA
03/07/00	3,200	450	25J	560	440	480	<16	NA.	NA NA	NA NA
06/14/01	2,500	31	<0.4	6.5	150	890	< 0.47	<0.53	NA NA	NA NA
09/12/00	2,000	13	4	1.8	44	216	< 0.47	NA	NA.	NA NA
03/21/01	930	24	1.4	8.2	18	70	< 0.47	2.7	NA.	NA
07/11/02	NA	20	3.8	0.92 J	4.7	39.8	< 0.49	NA	NA.	NA
MW-2/T66										:
12/17/98	<30	< 0.30	<0.20	< 0.20	<0.80	< 0.90	< 0.20	<1.1	< 0.30	<0.20
04/06/99	<50	<0.2	<0.5	<0.5	<1	<1	<0,3	NA	NA	NA
06/01/99	<50	<0.2	<0.5	<0.5	<1.0	<1.0	<0.3	NA	NA	NA
09/09/99	<50	< 0.15	<0.5	<0.4	<0,55	< 0.55	< 0.3	NA	NA	NA
12/10/99	<50	< 0.15	<0.5	<0.4	<0.55	< 0.55	< 0.3	NA	NA	NA
03/07/00	<100	< 0.32	< 0.34	< 0.35	<1	<0.99	< 0.31	NA	NA	NA
06/14/00	<100	<0.39	< 0.4	< 0.37	<1.4	<1.03	< 0.47	< 0.53	NA	NA
09/12/00	<100	<0.39	<0.4	<0.37	<1.4	<1.03	< 0.47	NA	NA	NA
03/21/01	<100	< 0.39	< 0.4	0.78 J	<1.4	<1.03	<0.47	< 0.53	NA	NA
07/11/02	NA	< 0.43	< 0.49	< 0.63	<1.45	<1.14	< 0.49	ΝA	NA	NA
MW-3/T66										
12/17/98	<30	<0.30	<0.20	<0.20	<0,80}	< 0.90	<0.20	<1.1	<0.30	< 0.20
04/06/99	<50	< 0.2	<0.5	<0.5	<1	<1	<0.3	NA	NA	NA
06/01/99	<50	<0.2	<0.5	<0.5	<1.0	<1.0	<0.3	NA	NA	NA
09/09/99	<50	< 0.15	<0.5	<0.4	<0.55	< 0.55	< 0.3	NA	NA	NA
12/10/99	< 50	<0.15	<0.5	< 0.4	<0.55	<0.55	<0,3	NA	NA	NA
03/07/00	<100	<0.32	< 0.34	< 0.35	<1	<0.99	< 0.31	NA	NA	NA
06/14/00	<100	<0.39	<0.4	<0.37	<1.4	<1.03	< 0.47	<0.53	NA	NA
		d, no sample								
07/11/02 N	IA	<0.43	<0.49	< 0.63	<0.145	<1.14	<0.49	NA	NA	NA

Table 1 Continued . . .

Well I.D. and	***************************************				,	Parameter				
Sample Date	GRO	Benzene	Ethylbenzene	Toluene	Xylenes	Trimethlybenzenes	MTBE	Naphthalene	n-Butylbenzene	sec-Butylbenzene
MW-4/T66			<u> </u>	<u>,</u>	L,					
11/25/98	32	11	<0.20	< 0.20	1.3	<0.90	<0.20	<1.1	<0.30	<0.20
12/17/98	NA NA	100	14	0.4J	47	58	< 0.20	5.8		0.20J
04/06/99	427	136	16.6	<0.6	36.4	49.2	<0.3	NA	NA	NA
06/01/99	<50	0.22	<0.5	<0.5	<1.0	<1.0	<0.3	NA	NA	NA
07/09/99	701	223	14,6	<2.5	36.4	45	<1.5	NA	NA	NA
09/09/99	<50	< 0.15	<0.5	<0.4	<0,55	<0.55	<0.3	NA	NA	NA
12/10/99	414	143	6.22	0.494	6.911	9.97	<0.3	NA	NA	NA
03/07/00	Water in well									
04/04/00	290	100	5.7	< 0.37	6.9	16	< 0.47	NA	NA	NA
06/14/00	<100	<0.39	< 0.4	< 0.37	<1.4	<1.03	<0.47	<0.53	NA	NA
09/12/00	<100	< 0.39	<0.4	< 0.37	<1.4	<1.03	< 0.47	NA	NA	NA
03/21/01	130	31	2.6	< 0.37	1.6 J	<1.8	< 0.47	<0.53	NA	NA
07/11/02	NA	12	< 0.49	< 0.63	<1.45	<1.14	<0.49	NA	NA	NA
MW-6/T66				A	<u> </u>		······	<u></u>	**************************************	
12/17/98	<30	< 0.30	< 0.20	< 0.20	<0.80	< 0.90	< 0.20	⊲0.23	<0.30	<0.20
04/06/99	<50	< 0.2	< 0.5	< 0.5	<1.0	<1.0	<0.3	< 0.08	NA	NA
06/01/99	<50	<0.2	<0.5	< 0.5	<1.0	<1.0	<0.3	NA	NA	NA
09/09/99	<50	< 0.15	<0.5	< 0.4	<0.55	< 0.55	<0.3	NA	NA	NA
12/10/99	<50	< 0.15	<0.5	<0.4	<0.55	<0.55	< 0.3	NA	NA	NA NA
03/07/00	<100	< 0.32	<0.34	< 0.35	<1	< 0.99	< 0.31	NA	NA	NA
06/14/00	<100	< 0.39	< 0.4	0.76J	<1.4	<1.03	< 0.47	<0.53	NA	NA NA
09/12/00	<100	<0.39	<0.4	<0.37	<1.4	<1.03	< 0.47	NA	NA	NA
03/21/01 V	Water in well	frozen								
07/11/02	NA	<0.43	< 0.49	<0.63	<1.45	<1,14	< 0.49	NA	NA	NA
MW-7/T66										
06/01/99	15,700	4,000	265	4,960	3,040	564	<15.0	42.2	<2.5	<2.5
07/09/99	23,100	5,090	367	6,480	3,800	608	<30	NA	NA NA	NA
09/09/99	34,800	7,950	575	9,680	6,670	1,084	<30	NA	NA	NA
12/10/99	26,000	5,330	383	3,860	4,090	645	<60	NA	NA)	NA
03/07/00	7,400	2,600	100	770	1,100	630	<16	NA	NA	NA
06/14/00	24,000	4,300	290	3,400	5,700	1,690	<4.7	200	NA	NA
09/12/00	19,000	4,100	290	2,000	3,500	1,300	<24	NA	NA	NA
03/21/01	33,000	5,500	780	7,200	7,300	1,770	<24	190	NA	NA
07/11/02	NA	7,700	1,300	3,600	5,400	1,900	<49	NA	NA	NA NA

Table 1 Continued . . .

Well I.D. and					*************************************	Parameter				
Sample Date	GRO	Benzene	Ethylbenzene	Toluene	Xylenes	Trimethlybenzenes	MTBE	Naphthalene	n-Butylbenzene	sec-Butylbenzene
<u> </u>										
MW-8/T66										
03/21/01	NI	NI	NI	Nİ	NI	NI	NI	NI	NI	NI
05/17/02	<100	7.1	0.89 J	<0.63	3.7	<1.14	<0.49	<1.4	<0,34	<0.46
06/07/02	<100	2,3	0.75 J	<0.63	2.4 J	<1.34	< 0.49	NA	NA	NA NA
PZ-1/T66										
11/25/98	32	<0.30	0.8	4.2	8,4	<0.90	< 0.20	<1.1	<0.30	<0.20
12/17/98	NA	NA	NA	NA:	NA	NA	NA	NA	NA	NA
04/06/99	<50	0.25J	<0,5	<0.5	<1.1	1.2	< 0.3	NA	NA	NA.
06/01/99	<50	<0.2	<0.5	<0.5	<1.0	<1.0	<0.3	NA	NA	NA NA
09/09/99	< 50	< 0.15	<0.5	<0.4	<0.55	<0.55	< 0.3	NA	NA	NA
12/10/99	<50	< 0.15	<0.5	<0.4	< 0.55	<0.55	< 0.3	NA	NA	NA
03/07/00	<100	< 0.32	< 0.34	< 0.35	<1	<0.99	< 0.31	NA	NA	NA NA
06/14/00	<100	< 0.39	<0.4	<0.37	<1.4	<1.03	< 0.47	< 0.53	NA	NA
09/12/00	<100	<0.39	<0.4	< 0.37	<1.4	<1.03	< 0.47	NA	NA	NA NA
03/21/01	<100	<0.39	<0.4	< 0.37	<1.4	<1.03	< 0.47	< 0.53	NA	NA
07/11/02	NA	< 0.43	<0.49	< 0.63	<1.45	<1.14	< 0.49	NA	NA	NA NA
PZ-4/T66										
06/03/99	<50	<0.2	<0.5	<0.5	<1.0	<1.0	<0,3	<1.0	<0.5	<0.5
09/09/99	<50	<0.15	<0.5	0.41	<0.55	<0.55	< 0.3	NA	NA	NA
12/10/99	<50	< 0.15	<0.5	<0.4	<0.55	<0.55	<0.3	NA	NA NA	NA
03/07/00	<100	<0.32	< 0.34	0.4J	<1	< 0.99	< 0.31	NA	NA	NANA
06/14/00	<100	<0.39	<0.4	0.53J	<1.4	<1.03	< 0.47	<0.53	NA	NA_
09/12/00	<100	< 0.39	< 0.4	0.82J	<1.4	<1.03	<0.47	NA	NA	NA
03/21/01	<100	<0.39	<0.4	< 0.37	<1.4	<1.03	< 0.47	<0.53	NA	NA
07/11/02	NA	0.86 J	<0.49	< 0.63	<1.5	<1.14	< 0.49	NA	NA	NA
NR 140 PAL	NS	0.5	140	200	1,000	96	12	8	NS	NS
NR 140 ES	NS	5	700	1,000	10,000	480	60	40	NS	NS

Well I.D. and			Pa	rameter			
Sample Date	Dichlorodifluoromethane	1,2-Dichloroethane	Diisopropyl ether	Isopropylbenzene	p-Isopropyltoluene	n-Propylbenzene	Dissolved Lead
MW-1/T66							
12/17/98	<0.5	< 0.20	<0.30	< 0.20	< 0.20	< 0.20	<1
04/06/99	NA	NA	NA	NA	NA	NA	<1
06/01/99	NA	NA	NA	NA	NA	NA	<1
09/09/99	NA	NA	NA	NA	NA	NA NA	<1
12/10/99	NA	NA	NA	NA	NA	NA	1.32
MW-2/T66							
12/17/98	<0.5	< 0.20	< 0.30	< 0.20	< 0.20	< 0.20	<1
04/06/99	NA	NA.	NA	NA	NA	NA	<1
06/01/99	NA	NA	NA	NA	NA	NA	<1
09/09/99	NA	NA	NA	NA	NA	NA	<1
12/10/99	NA	NA	NA	NA	NA	NA	<1
MW-3/T66							
12/17/98	<0.5	< 0.20	< 0.30	< 0.20	< 0.20	< 0.20	<1
04/06/99	NA	NA	NA	NA	NA	NA	1.3
06/01/99	NA	NA	NA	NA	NA	NA	<1
09/09/99	NA	NA	NA	NA	NA	NA	<1
12/10/99	NA	NA	NA.	NA	NA	NA	<1
MW-4/T66							
11/25/98	<0.5	<0.20	< 0.30	<0.20	< 0.20	<0.20	NA
12/17/98	<0.5	< 0.20	< 0.30	1.6	<0.20	3.4	<1
04/06/99	NA	NA	NA	NA	NA	NA	<1
06/01/99	NA	NA	NA	NA	NA	NA	<1
09/09/99	NA	NA	NA	NA	NA	NA	<1
12/10/99	NA	NA	NA	NA	NA	NA	<1
04/04/00	NA	NA	NA	NA	NA	NA	<1
MW-6/T66							
12/17/98	<0.5	< 0.20	<0.30	<0.20	<0.20	< 0.20	<1
04/06/99	NA	NA	NA	NA	NA	NA	<1
06/01/99	NA	NA	NA	NA	NA	NA	<1
09/09/99	NA	NA	NA	NA	NA	NA	<1
12/10/99	NA	NA	NA	NA	NA	NA	<1

Well I.D. and			Pa	rameter			
Sample Date	Dichlorodifluoromethane	1,2-Dichloroethane	Diisopropyl ether	Isopropylbenzene	p-Isopropyltoluene	n-Propylbenzene	Dissolved Lead
MW-7/T66							
06/01/99	11.4	105	<2.5	11.8	<2.5	22.4	8.52
09/09/99	NA	NA	NA	NA	NA	NA	1.47
12/10/99	NA	NA	NA	NA	NA	NA	<1
MW-8/T66							
03/21/01	NI	NI	NI	NI	NI	NI	NI
05/17/02	<0.56	< 0.54	< 0.51	< 0.46	< 0.39	< 0.34	NA
PZ-1/T66							
11/25/98	<0.5	< 0.20	< 0.30	< 0.20	<0.20	< 0.20	NA
12/17/98	NA	NA	NA	NA	NA	NA	<1
04/06/99	NA	NA	NA	NA	NA	NA	1.39
06/01/99	NA	NA	NA	NA	NA	NA	<1
09/09/99	NA	NA	NA	NA	NA	NA	<1
12/10/99	NA	NA	NA	NA	NA	NA	<1
PZ-4/T66							
06/03/99	<0.5	<0.2	< 0.5	<0.5	<0.5	<0.5	10.9
09/09/99	NA	NA	NA	NA	NA	NA	<1
12/10/99	NA	NA	NA	NA	NA	NA	4.83
NR 140 PAL	200	0.5	NS	NS	NS	NS	1.5
NR 140 ES	1,000	5	NS	NS	NS	NS	15

NOTES:

Results reported in units of micrograms per liter (ug/l).

Results in bold exceed NR 140 ES standard.

The initial round of samples collected from each well analyzed for VOCs.

Select samples collected from MW-1, MW-2, MW-3, and MW-6 also analyzed for PAHs.

Results from monitoring well MW-5/T66 are not included in this table. MW-5/T66 is associated with the Tank 68 release site.

Only detected parameters shown on table.

NA = Not sampled.

NS = No standard.

NI = Well not installed.

J = Estimated concentration below laboratory quantitation level.

MURPHY OIL USA, INC SUPERIOR, WISCONSIN

TABLE 2

GROUNDWATER SAMPLING RESULTS - NATURAL ATTENUATION COMPOUNDS TANK 65/66 RELEASE SITE (mg/l)

Well I.D. and				Para	ımeter			
Sample Date	Total	Nitrite &	Sulfate	Dissolved	Dissolved	Dissolved	pН	Temperature
	Alkalinity	<u>Nitrate</u>		Iron	Manganese	Oxygen	(std units)	(celcius)
MW-1/T66								
07/11/02	814	< 0.05	25	0.50	0.16	1.8	7.1	8.9
MW-2/T66								
07/11/02	891	< 0.05	42	< 0.055	< 0.01	4.6	7.1	12.0
MW-3/T66								
07/11/02	452	< 0.05	88	< 0.055	< 0.01	7.5	7.2	13.1
MW-4/T66								
07/11/02	783	< 0.05	72	< 0.055	< 0.01	5.2	7.1	10.2
MW-6/T66								
07/11/02	580	0.14 J	120	< 0.055	0.010 J	6.6	7.7	12.0
MW-7/T66								
07/11/02	715	< 0.05	18 J	13	0.14	1.8	7.4	10.4
PZ-1/T66								
07/11/02	333	< 0.05	7.3 J	0.18	0.21	1.8	7.1	10.8
PZ-4/T66								
07/11/02	<4.4	<0.25	89	< 0.055	0.047	1.9	8.1	11.1
NR 140 PAL	NS	2	125*	0.15*	0.025*	NS	NS	NS
NR 140 ES	NS	10	250*	0.3*	0.05*	NS	NS	NS

NOTES:

Unless noted otherwise, results reported in units of milligrams per liter (mg/l).

Results in bold exceed NR 140 ES standard.

* = NR 140 Public Welfare Groundwater Quality Standard.

J = Estimated concentration below laboratory quantitation level.

NS = No standard.

MURPHY OIL USA, INC. SUPERIOR, WISCONSIN

TABLE 3

PRE-EXCAVATION SOIL SAMPLING RESULTS (mg/kg) FORMER TANK 65 BASIN JUNE 19, 1998

Sample ID & Sample Depth (ft)	GRO	Benzene	Ethylbenzene	МТВЕ	Toluene	1,3,5-TMB	1,2,4-TMB	Total Xylenes
NR 720 RCL	250	0.0055	2.9	NS	1.5	NS	NS	4.1
LF-1 (1.5')	5,900	150	43	56	68	100	240	430
LF-2 (1.5')	3,000	1.7	10	<1.0	5,6	82	180	171
LF-3 (1.5')	4,200	55	42	26	180	48	150	390
LF-4 (1.5')	14	0.27	0.042	< 0.025	0.037	0.037	<0.25	0.091
LF-5 (1.5')	10,000	120	220	20	700	150	450	1,140

NOTES:

Samples collected by Twin Ports Testing, Inc. and analyzed by EnChem Inc.

Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis.

Results in bold exceed applicable generic NR 720 RCLs.

NR 720 RCL = Wisconsin Administrative Code NR 720 residual contaminant level.

NS = No standard.

MURPHY OIL USA, INC. SUPERIOR, WISCONSIN

TABLE 4

SOIL SAMPLING RESULTS (mg/kg) TANKS 65 AND 66 BASINS - JULY 21 AND 22, 1998

	Sample ID and Sample Depth (feet)						
Parameter	GP-8						
	1-1.5	4.5-5					
DRO	110	130					
GRO	1,000	740					
Benzene	13	19					
Ethylbenzene	20	15					
Toluene	42	67					
Xylenes	156	110					
MTBE	<0.45	<0.45					
1,2,4-TMB	66	48					
1,3,5-TMB	27	20					
Ethylene dibromide (EDB)	<0.35	<0.35					
Lead	11.6	NA					
Detected Polycyclic Aromatic Hydroca	rbons						
Acenaphthene	<0.048	<0.048					
Acenaphthylene	<0.051	0.34					
Anthracene	<0.023	<0.023					
Benzo(a)anthracene	<0.0020	<0.0020					
Benzo(a)pyrene	<0.0015	<0.0015					
Benzo(b)fluoranthene	<0.0015	<0.0015					
Benzo(k)fluoranthene	<0.0015	<0.0015					
Fluoranthene	<0.0049	0.032					
Fluorene	<0.0086	<0.0086					
Indeno(1,2,3-cd)pyrene	<0.0094	<0.0094					
Naphthalene	1.6	0.93					
l-Methyl Naphthalene	1.0	0.47					
2-Methyl Naphthalene	2.3	1.1					
Phenanthrene	0.045	<0.0035					
Pyrene	0.20	0.052					

Gannett Fleming Table 4 Continued . . .

	Sample ID and Sa	mple Depth (feet)
Parameter	HA	ı-2
	1-1.5	4.5-5
DRO	350	990
GRO	1,700	850
Benzene	1.3	<0.38
Ethylbenzene	<0.11	<0.22
Toluene	1.8	<0.22
Xylenes	6.3	<0.68
MTBE	<0.090	<0.18
1,2,4-TMB	22	20
1,3,5-TMB	5.7	7,9
Ethylene dibromide (EDB)	<0.28	<0.14
Lead	11.4	NA
Detected Polycyclic Aromatic Hydroca	rbons	
Acenaphthene	<0.048	<0.048
Acenaphthylene	<0.051	<0.051
Anthracene	<0.023	<0.023
Benzo(a)anthracene	<0.0020	<0.0020
Benzo(a)pyrene	<0.0015	<0.0015
Benzo(b)fluoranthene	< 0.0015	<0.0015
Benzo(k)fluoranthene	<0.0015	<0.0015
Fluoranthene	<0.0049	<0.0049
Fluorene	<0.0086	0.76
Indeno(1,2,3-cd)pyrene	<0.0094	<0.0094
Naphthalene	<0.031	3.2
1-Methyl Naphthalene	<0.047	6.9
2-Methyl Naphthalene	0.076	T Y Y Y 4
Phenanthrene	<0.0035	0.72
Pyrene	0.018	<0.0062

NOTES:

Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis. Results in bold exceed applicable NR 720 RCL.

Only detected polycyclic aromatic hydrocarbons (PAHs) included in table.

NA = Not analyzed.

MURPHY OIL USA, INC. SUPERIOR, WISCONSIN

TABLE 5

PRE-EXCAVATION GEOPROBE SOIL SAMPLING RESULTS (mg/kg) FORMER TANK 65 BASIN SEPTEMBER 18, 1998

Boring No. & Sample Depth (ft)	Benzene	Ethylbenzene	МТВЕ	Toluene	1,3,5-TMB	1,2,4-TMB	Total Xylenes
SB-1 (0-2')	24	17	5	46	11	35	77
SB-1 (2-4')	28	24	2.1	83	16	48	114
SB-1 (4-6')	9	3.5	0.27	15	2	6.4	16.9
SB-1 (6-8')	9.7	8.1	0,66	27	4.9	15	38
SB-1 (20-22')	0.49	0.75	< 0.025	2.7	0.06	.2	2.82
SB-2 (0-2')	23	21	1.7	69	14	44	102
SB-2 (2-4')	12	4.7	.15	24	2.7	8.7	23.8
SB-2 (4-6')	13	2.8	< 0.05	20	1.3	4.2	14.3
SB-2 (6-8')	8.9	2.4	<0.05	16	1	3.5	11.9
SB-2 (8-10')	8.4	3.2	0.083	17	1.4	4.7	15.5
SB-3 (0-2')	25	19	1.9	69	13	39	95
SB-3 (2-4')	21	19	1.2	68	13	41	94
SB-3 (4-6')	15	4.7	0.18	27	2.4	7,5	22.8
SB-3 (6-8')	11	4	0.19	23	2	6.4	19.8
SB-3 (8-10')	8.6	3.7	0.17	21	1.7	5.5	18.3
NR 720 RCL	0.0055	2.9	NS	1.5	NS	NS	4.1

Table 5 Continued . . .

Boring No. & Sample Depth (ft)	Benzene	Ethylbenzene	МТВЕ	Toluene	1,3,5-TMB	1,2,4-TMB	Total Xylenes
SB-4 (0-2')	22	31	2.2	94	23	68	154
SB-4 (2-4')	10	8.2	0.71	29	5.6	17	42
SB-4 (4-6')	14	22	1.9	61	17	52	114
SB-4 (6-8')	7.9	7.1	0.33	26	5	15	36
SB-4 (8-10')	6.1	2	0.087	12	.97	3.2	10.5
SB-5 (0-2')	21	33	2.1	60	28	92	178
SB-5 (2-4')	6.1	4	1.2	12	2.9	9.3	20.7
SB-5 (4-6')	6.3	1.8	0.43	9	1.1	3.8	10.4
SB-5 (6-8')	3.4	1.3	0.28	6.3	0,88	3	7.8
SB- 5 (8-10')	2.5	1.2	0.21	5.7	0.75	2.6	7.1
Field Blank	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Method Blank	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
NR 720 RCL	0,0055	2.9	NS	1.5	NS	NS	4.1

NOTES:

Samples collected by Twin Ports Testing, Inc. and analyzed by EnChem Inc.

Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis.

Results in bold exceed applicable generic NR 720 RCLs.

NR 720 RCL = Wisconsin Administrative Code NR 720 residual contaminant level.

NS = No standard.

MURPHY OIL USA, INC. SUPERIOR, WISCONSIN

TABLE 6

POST-EXCAVATION SOIL SAMPLING RESULTS FORMER TANK 65 BASIN (mg/kg) OCTOBER 20, 1998

Parameter				Sample I.D.					NR 720 RCL	NR 746 Indicators of Residual Product	NR 746 Direct Contact Standards in Upper
	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8		in Soil Pores	4 Feet of Soil
Lead	11.4	13.1	13.7	11.9	10.5	13.6	11.4	9.94	500	NS	NS
GRO	490	980	1,600	3.8	490	210	1,300	1,800	250	NS	NS
Benzene	3.5	6.5	21	< 0.025	3.9	0.64	12	20	0.0055	8.5	1.10
Ethylbenzene	7.1	22	48	< 0.025	2.4	2.3	27	30	2.9	4.6	4.6
Toluene	8.3	56	140	0.064	0.6	3.4	63	59	1.5	38	38
Total Xylenes	39	143	253	0.1	13.3	11.4	126	178	4.1	42	42
Trimethylbenzenes	34.8	94	156	0.196	25,9	16.7	90	138	NS	94	94
MTBE	<1.2	<1.2	<2.5	< 0.025	<0.25	<0.25	7.1	7.2	NS	NS	NS

Parameter				Sample I.D.					NR 720 RCL	NR 746 Indicators of Residual Product	NR 746 Direct Contact Standards in Upper
	B-9	B-10	B-11	B-12	B-13	B-14	B-15	B-16		in Soil Pores	4 Feet of Soil
Lead	8.18	13.6	15.3	81	9.81	11.4	12.6	9.45	500	NS	NS
GRO	960	1,500	3,700	350	6.7	77	2,700	190	250	NS	NS
Benzene	6.6	13	64	1.8	< 0.025	0.43	35	3.7	0.0055	8.5	1.10
Ethylbenzene	16	29	85	8.7	< 0.025	0.99	68	1.7	2.9	4.6	4.6
Toluene	9.9	62	260	18	< 0.025	1.1	160	0.46	1.5	38	38
Total Xylenes	77	123	400	47	0.081	3.3	293	4.1	4.1	42	42
Trimethylbenzenes	67	86	250	31.2	0.34	5.6	181	13.2	NS	94	94
MTBE	4.9	<2.5	11	< 0.25	< 0.025	< 0.25	7.6	0.77	NS	NS	NS

NOTES:

All samples collected at a depth of 0.5 feet below grade.

Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis.

Results in bold exceed applicable generic NR 720 RCLs.

NR 720 RCL

Wisconsin Administrative Code NR 720 residual contaminant level.

NS

= No standard.

MURPHY OIL USA, INC. SUPERIOR, WISCONSIN

TABLE 7

$\frac{\text{FORMER TANK 66 BASIN SOIL SAMPLING RESULTS (mg/kg)}}{\text{MAY 1999}}$

					Sample I.D.	and Depth					NR 720	NR 746 Indicators	NR 746 Direct Contact
Parameter	GP9	9-1	GPS	9-2	GP9	99-3	GP:	9-4	GP9	9-5	RCL	of Residual Product	Standards in Upper
	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft,	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.		in Soil Pores	4 Feet of Soil
Lead	1.4	6.77	1.14	9.95	49.3	12.9	5.98	4.95	2.23	22.3	500	NS	NS
GRO	954	752	51.3	698	5,100	3,280	223	258	2,230	19.4	250	NS	NS
Benzene	22.8	2.6	< 0.030	3.71	<13.3	5.94	0.298	0.177	< 0.218	2.84	0,0055	8.5	1.10
Ethylbenzene	113	2.76	0.041	14.2	<26.6	80.7	2.98	2.28	< 0.435	0.944	2.9	4.6	4.6
Toluene	73.4	< 0.53	0.057	35.2	<26.6	67	0.617	0.532	< 0.435	1.95	1.5	38	38
Total Xylenes	757	5.49	0.239	92.3	53.4	572	6.426	2.59	0.789	5.35	4.1	42	42
Trimethylbenzenes	746	23.2	1.097	87.9	455	375	7.79	5.44	57.3	1.63	NS	94	94
MTBE	<1.14	< 0.53	< 0.030	< 0.534	<26.6	<3.03	< 0.033	<0.031	< 0.435	< 0.033	NS	NS	NS

NOTES:

Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis.

Soil samples collected by Twin Ports Testing using a Geoprobe.

Concentrations in bold exceed applicable NR 720 RCLs.

NS = No standard.

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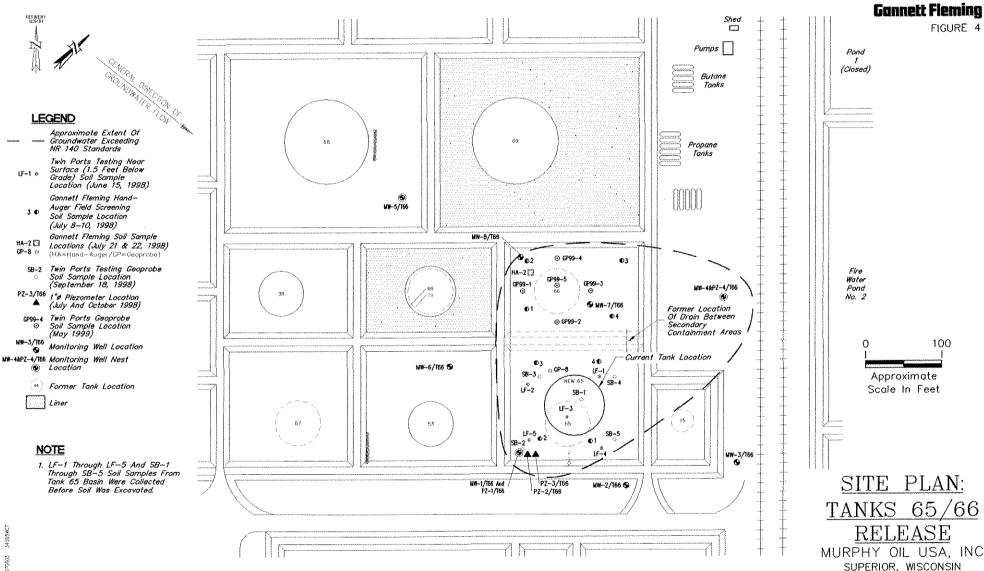


TABLE 8

DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS $\underline{ \text{TANK 65/66 RELEASE SITE} }$

Well	Diameter	Relative Well	Relative	Depth to	Depth to Water	Water	Screened	Total	Date	
Number	(inches)	Elevation (TOC)	Groundsurface Elevation (AMSL)	Water From TOC (ft)	(ft bgs)	Elevation (ft)	Interval (ft)	Depth From TOC (ft)	Measured	
TILL 1 77.66		757.76	654.1		5	Dwy	651,1-636.1	20.8	11/06/98	
AW-1/T66	2	656.66	034.1	Dry	Dry Dry	Dry Dry	031,1-030.1	20.0	11/09/98	
				Dry				ŀ		
				19.19	16.63	637.47		-	11/18/98	
	1			17.14	14.58	639.52	***		12/02/98	
				16.78	14.22	639.88	1	1	12/10/98	
				16.58	14.02	640.08		1	12/17/98	
			-	13.21	10.65	643.45		1	01/15/99	
				11.55	8.99	645.11		1	01/29/99	
				8.82	6.26	647.84		1	03/03/99	
				8.41	5.85	648.25		1	03/10/99	
	1			7.61	5.05	649.05	·		03/26/99	
		į.		10.03	7.47	646.63			04/06/99	
	:			7.59	5.03	649.07			05/17/99	
	}			9.06	6.50	647.6			06/01/99	
	1	1		6.70	4.14	649.96			06/25/99	
				14.40	11.84	642.26			11/16/99	
				15.46	12.90	641.2			11/18/99	
				15.39	12.83	641.27			11/23/99	
				14.92	12.36	641.74			11/29/99	
	***************************************	ŀ		15.16	12:60	641.5			12/03/99	
	*****			15.12	12.56	641.54			12/08/99	
	***************************************	}		14.11	11.55	642.55			12/17/99	
	***************************************			12.50	9.94	644.16			12/29/99	
	-				11.67	9.11	644.99			01/13/00
				***************************************	12.70	10.14	643.96			01/19/00
				12.90	10.34	643.76			01/28/00	
		}	7	12.29	9.73	644.37			02/11/00	
				12.19	9.63	644.47			02/25/00	
			******	13.48	10.92	643.18			03/02/00	
				14.31	11.75	642.35			03/07/00	
		1	-	13.29	10.73	643.37			03/16/00	
			-	13.70	11.14	642.96		ļ	03/22/00	
	Ì		-	11.99	9.43	644.67	·		04/04/00	
				11.64	9.08	645.02			04/14/00	
			***	10.58	8.02	<u> </u>			04/28/00	
		ļ		10.23	7.67	646.43			05/12/00	
				10.23	7.55	646.55			05/25/00	
	1	1		10.11	7.35	646.65		ł	06/08/00	
		ļ.	***				i		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
				9.31	6.75	647.35	ŀ		06/29/00	
	***			8.96	6.40		ł.		07/14/00	
				9.27	6.71	647.39	1	-	07/27/00	
	-			9.25	6.69		ł	1	08/09/00	
	ATTENDED TO THE PERSON OF THE	†	***************************************	8.67	6.11	647.99	ļ	-	08/25/00	
				8.76	6.20		1	Politica de la constanta de la	09/08/00	
				4.68	2.12		1	Í	02/23/01	
	ALL COLORS OF THE COLORS OF TH			8.36	5.80	648.3			03/02/01	
	Attenues			10.05	7.49			<u> </u>	03/08/01	
	***			10.42	7.86				03/15/01	
		<u> </u>	L	11.27	8.71	645.39		Ĺ	03/21/01	

TABLE 8

DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS
TANK 65/66 RELEASE SITE

Well	Diameter	Relative Well	Relative	Depth to	Depth to Water	Water	Screened	Total	Date																						
Number	(inches)	Elevation (TOC)	Groundsurface	Water	(ft bgs)	Elevation (ft)	Interval (ft)	Depth From	Measured																						
	<u> </u>		Elevation (AMSL)	From TOC (ft)				TOC (ft)																							
MW-2/T66	2	659.69	657.4	Dry	Dry	Dry	654.4-639.4	20.6	11/06/98																						
				12.76	10.47	646.93			11/18/98																						
				9.78	7.49	649.91			12/02/98																						
	1			8.49	6.20	651,2			12/17/98																						
				7.41	5.12	652.28			01/15/99																						
				6.98	4.69	652.71			01/29/99																						
	1			6.49	4.20	653.2			03/03/99																						
				6.44	4.15	653.25			03/10/99																						
				6.23	3.94	653.46			03/26/99																						
	***************************************			8.10	5.81	651.59			04/06/99																						
	***************************************			4.17	1.88	655.52			11/16/99																						
				9.13	6.84	650.56			11/18/99																						
				10.62	8.33	649.07			11/23/99																						
				10.85	8.56	648.84			11/29/99																						
	1			11.67	9.38	648.02			12/03/99																						
				11.88	9.59	647.81			12/08/99																						
						10.82	8.53	648.87	:		12/17/99																				
						9.63	7.34	650.06			12/29/99																				
	ļ. :										9.22	6.93	650.47			01/13/00															
																		:								10.67	8.38	649.02			01/19/00
																				10.81	8.52	648.88			01/28/00						
									10.14	7.85 7.81	649.55 649.59			02/11/00																	
				11.42	7.81 9.13	648.27			02/25/00 03/02/00																						
				12.31	10.02	647.38			03/02/00																						
							11.03	648.66			03/16/00																				
				11.76	9.47	647.93	•		03/12/00																						
				10.05	7.76	<u> </u>			04/04/00																						
				10.06	7.77	<u> </u>			04/14/00																						
	1			9.42	7.13	650.27		İ	04/28/00																						
	1	Vennum		9.01	6.72			ļ	05/12/00																						
		V()	WARRANCE TO THE PARTY OF THE PA	8.82	6.53	650,87			05/25/00																						
		***************************************		8.75	6.46				06/08/00																						
		Weight and the second s	www	7.93	5.64	651.76		ŧ	06/29/00																						
		-	MANAGE AND ASSESSMENT ASSESSMENT AND ASSESSMENT ASSESSMENT AND ASSESSMENT ASSESSM	7.93	5.64	651.76			07/14/00																						
		•	WARRIED TO THE PARTY OF THE PAR	8.31	6.02	651.38		l	07/27/00																						
			***************************************	8.63	6.34	651.06			08/09/00																						
		SPRINGER		8.12	5.83	651.57			08/25/00																						
	1			8.22	5.93	651.47	ļ)	09/08/00																						
			6.90	4.61	652.79]	·	02/23/01																							
		1		8.98	6.69	650.71		1	03/02/01																						
	-		}	10.57	8.28	649.12		!	03/08/01																						
	-			11.08	8.79	648.61	[1	03/15/01																						
	Avane			12.06	9.77	647.63			03/21/01																						

TABLE 8

DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS
TANK 65/66 RELEASE SITE

Well	Diameter	Relative Well	Relative	Depth to	Depth to Water	Water	Screened	Total	Date
Number	(inches)	Elevation (TOC)	Groundsurface	Water	(ft bgs)	Elevation (ft)	Interval (ft)	Depth From	Measured
			Elevation (AMSL)	From TOC (ft)				TOC (ft)	
MW-3/T66	2	659.01	656.6	Dry	Dry	Dry	653.6-638.6	20.55	11/06/98
	Į į			17.14	14.73	641.87	}		11/18/98
				12.89	10.48	646.12			12/02/98
				13.18	10.77	645.83			12/17/98
				9.10	6.69	649.91			01/1.5/99
	· 1			7.62	5.21	651.39			01/29/99
				5.44	3.03	653.57			03/03/99
				5.22	2.81	653.79			03/10/99
				4.84	2.43	654.17			03/26/99
				7.47	5.06	651.54			04/06/99
				4.54	2.13	654.47			11/16/99
				8.79	6.38	650.22	•		11/18/99
				10.85	8.44	648.16			11/23/99
				11.63	9.22	647.38			11/29/99
				12.54	10.13	646.47			12/03/99
				12.92	10.51	646.09			12/08/99
				12.40	9.99	646.61			12/17/99
				11.26	8:85	647.75			12/29/99
				10.76	8.35	648.25			01/13/00
				12.20	9.79	646.81			01/19/00
				12.55	10.14	646.46			01/28/00
				12.14	9.73	646.87			02/11/00
				12.14	9.73	646.87			02/25/00
				13.31	10.90	645.7			03/02/00
				14.09	11.68	644.92			03/07/00
	1			6.81	4.40	652.2			03/16/00
				3.80	1.39	655.21			03/22/00
				4.09	1,68	654.92			04/04/00
				4.39	1.98	654.62			04/14/00

Well	Diameter	Relative Well	Relative	Depth to	Depth to Water	Water	Screened	Total	Date
Number	(inches)	Elevation (TOC)	Groundsurface	Water	(ft bgs)	Elevation (ft)	Interval (ft)	Depth From	Measured
			Elevation (AMSL)	From TOC (ft)				TOC (ft)	
IW-4/T66	2	659.99	657.1	3.86	0.97	656.13	654.1-639.1	20.8	11/06/98
				3.86	0.97	656.13			11/09/98
]			3.15	0.26	656.84			11/18/98
				3.32	0.43	656.67			12/02/98
				3.63	0.74	656.36			12/17/98
				5.74	2.85	654.25			01/15/99
	İ ,			4.77	1.88	655.22			01/29/99
				3.34	0.45	656.65			03/29/99
				3.00	0.11	656.99			04/06/99
				5.60	2.71	654.39			11/17/99
				5.66	2.77	654.33			11/22/99
				5,61	2.72	654.38			11/24/99
				5.62	2.73	654.37			12/02/99
				5.73	2.84	654.26			12/07/99
	1			6.64	3.75	653.35			12/16/99
	ļ			6.69	3.80	653.3			12/28/99
				6.70	3.81	653.29			01/06/00
	1			6.88	3.99	653.11			01/18/00
				7.02	4.13	652.97			01/27/00
				7.05	4.16				02/10/00
	ł			5.74		654.25			02/24/00
	ŀ		-	3.87	0.98	656.12			03/02/00
				3.87	0.98	\$			03/07/00
	1			3.87	0.98	656.12			03/16/00
		ĺ	İ	3.87	0.98	656.12			03/22/00
				3.57	0.68	<u> </u>		ļ	03/31/00
		<u> </u>		3.58	}	656.41			04/04/00
	ł		1	3.91	1.02	· · · · · · · · · · · · · · · · · · ·			04/13/00
	ļ	1	ļ	4.02	1.13	655.97			04/28/00
			ļ	. 3.34	0.45	656.65			05/12/00
		-		3.69	0.80	656.3			05/25/00
			İ	3.81	0.92	656.18			06/08/00
	-		}	3.64	0.75				06/29/00
				3.39					07/14/00
	1	**************************************		4.17			·	1	07/27/00
		[4.08	1.19	<u> </u>			08/09/00
	-	-		3.68	0.79	 		1	08/25/00
				4.13	1.24	<u> </u>			09/07/00
				5.50		654.49			02/23/01
	Nonemark.			5.35					03/02/01
	1			5.25		\$		l	03/08/01
	ł			4.49				1	. 03/1.5/01
	-	i	1	3.87	0.98	656.12			03/21/01

TABLE 8 $\frac{\text{DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS}}{\text{TANK 65/66 RELEASE SITE}}$

Well	Diameter	Relative Well	Relative	Depth to	Depth to Water	Water	Screened	Total	Date
Number	(inches)	Elevation (TOC)	Groundsurface	Water	(ft bgs)	Elevation (ft)	Interval (ft)	Depth From	Measured
			Elevation (AMSL)	From TOC (ft)	-			TOC (ft)	
MW-6/T66	2	659.6	657.1	Dry	Dry	Dry	654.1-639.1	20.65	11/06/98
				14.84	12.34	644.76			11/18/98
				11.93	9.43	647.67			12/02/98
				10.32	7.82	649.28			12/17/98
				7.68	5.1.8	651.92			01/15/99
		,		6.52	4.02	653.08			01/29/99
	1			3.77	1.27	655.83			03/03/99
	-			3.85	1.35	655.75			03/10/99
				3.24	0.74	656.36			03/26/99
				8.47	5.97	651.13			04/06/99
				3.03	0.53	656.57			11/17/99
				11.22	8.72	648.38			11/22/99
				14.20	11.70	645.4			11/24/99
			12.67 10.17 646.93 13.24 10.74 646.36 12.33 9.83 647.27 11.46 8.96 648.14 12.15 9.65 647.45 11.92 9.42 647.68 12.33 9.83 647.27 11.50 9.00 648.1 10.49 7.99 649.11 11.61 9.11 647.99 13.16 10.66 646.44 9.55 7.05 650.05 11.38 8.88 648.22 8.91 6.41 650.69 9.82 7.32 649.78 8.66 6.16 650.94 8.35 5.85 651.25 8.46 5.96 651.14 8.28 5.78 651.32	12.67	10.17	646.93			12/02/99
	1				1				12/07/99
					12/16/99				
					12/28/99				
	[<u> </u>	****			01/06/00
									01/18/00
				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<del> </del>				01/27/00
				<del></del>					02/10/00
				10.49	<u> </u>				02/24/00
				11.61	9.11	647.99			03/02/00
		1							03/07/00
	i	ľ		<del></del>				Į	03/17/00
	1				<u></u>	***************			03/22/00
	İ	-			<u></u>				04/05/00
					<del></del>	<u> </u>			04/14/00
	***************************************	ŀ			······	<del></del>			04/28/00
	İ			<del></del>					05/12/00
	1	-			<del></del>				05/25/00
į	ļ								06/08/00
	-		ţ	7.00		<del></del>		}	06/29/00
	İ	ļ	**************************************	7.26	<u> </u>			İ	07/14/00
	1			8.40	1		į	1	07/27/00
ŀ				6.97				-	08/14/00
				8.23	<del> </del>	<del></del>	1		08/25/00
	}	<u>}</u>	)	8.04		<del> </del>	-₹		09/08/00
	1			2.91					02/23/01
			1	2.90	<del></del>	<del></del>	]		03/02/01
		<u> </u>		2.90	0.40	656.7			03/08/01

TABLE 8

# DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS TANK 65/66 RELEASE SITE

Well	Diameter	Relative Well	Relative	Depth to	Depth to Water	Water	Screened	Total	Date
Number	(inches)	Elevation (TOC)	Groundsurface	Water	(ft bgs)	Elevation (ft)	Interval (ft)	Depth From	Measured
			Elevation (AMSL)	From TOC (ft)				TOC (ft)	
MW-7/T66	2	******		Dry		not surveyed			03/26/99
				17.52					04/06/99
				16.63					04/15/99
				3.98					11/17/99
				8.49					11/22/99
	1			10.95					11/24/99
<u> </u>				10.67					12/02/99
				11.44			•		12/07/99
				11.13					12/16/99
:				10.39					12/28/99
				10.81					01/06/00
				11.09					01/18/00
				11.81					01/27/00
				11.83					02/10/00
				12.43					02/24/00
	1			13.64					03/02/00
				14.63					03/07/00
	ì '			13.75				Ì	03/17/00
	1			14.09					03/22/00
	1			11.53					04/05/00
	ŀ			11.48					04/14/00
	ľ			10.33				į	04/28/00
	İ			9.73					05/12/00
				9.63				i	05/25/00
			}	9.67					06/08/00
	1			9.69					06/29/00
	1			9.74					07/14/00
	ļ		ļ	10.22				ļ	07/27/00
		į	-	10.71		1		1	08/09/00
H		Į		10.53				[	08/25/00
				10.66				}	09/08/00
				5.82		<u> </u>			02/23/01
H			ŀ	8.59	<u> </u>	<u> </u>		[	03/02/01
	1			9.99	İ	1		ĺ	03/08/01
1	1	1	[	10.16					03/15/01
		1		10.62					03/21/01

### TABLE 8

# DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS TANK 65/66 RELEASE SITE

Well	Diameter	Relative Well	Relative	Depth to	Depth to Water	Water	Screened	Total	Date
Number	(inches)	Elevation (TOC)	Groundsurface	Water	(ft bgs)	Elevation (ft)	Interval (ft)	Depth From	Measured
			Elevation (AMSL)	From TOC (ft)				TOC (ft)	
MW-8/T66	2			4.79		not surveyed			05/09/02
				4.75					05/15/02
				5.2					05/21/02
				5.4					05/31/02
				6.4					06/07/02
				5.08		· · · · · · · · · · · · · · · · · · ·			06/15/02
				4.97					06/21/02
				4.9					06/28/02
				5.36					07/05/02
				4.93					07/12/02
				5.16					07/19/02
				4.83					07/26/02
				4.62					08/02/02
				5.06					08/09/02
				4.79				<u> </u>	08/16/02
	1			4.81				1	08/22/02
				5,19					08/29/02
				4.86					09/05/02
	}		İ	4.97					09/13/02
	1			5.22					09/18/02
	A section of		ľ	4.97					09/26/02
				5.14					10/02/02
i				4.79					10/09/02
	1		- Table	5.05					10/18/02
Ė				5.06					10/23/02
i				5.17				}	10/31/02
	1			5.24				1	11/07/02
	}		1	5.34					11/15/02

TABLE 8

DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS

TANK 65/66 RELEASE SITE

Well	Diameter	Relative Well	Relative	Depth to	Depth to Water	Water	Screened	Total	Date
Number	(inches)	Elevation (TOC)	Groundsurface	Water	(ft bgs)	Elevation (ft)	Interval (ft)	Depth From	Measured
			Elevation (AMSL)	From TOC (ft)				TOC (ft)	
Z-1/T66	2	656.7	654.4	9.18	6.88	647.52	651.4-636.4	34.55	11/06/98
				8.85	6.55	647.85			11/09/98
				9.08	6.78	647.62			11/18/98
	; ]		· ·	9.10	6.80	647.6		[	12/02/98
	ļ (			8.80	6.50	647.9			12/17/98
				8.43	6.13	648.27			01/15/99
ļ	}		İ	8.72	6.42	647.98	(	[	01/29/99
	] [	ł		9.19	6.89	647.51			03/03/99
				8.47	6.1.7	648.23			03/10/99
	1	1		8.59	6.29	648.11			03/26/99
				8.53	6.23	648.17			04/06/99
	1			8.61	6.31	648.09		-	11/16/99
				9.32	7.02	647.38			11/18/99
				9.11	6.81	647.59			11/23/99
				9.29	6.99	647.41			11/29/99
	1 1			9.67	7.37	647.03			12/03/99
		ļ		9.25	6.95	647.45		ļ	12/08/99
				9.30	7.00	647.4			12/17/99
				8.66	6.36	648.04			12/29/99
	ļ. <u> </u>			8.99	6.69	647.71			01/13/00
	· 1			8.67	6.37	648.03			01/19/00
				8.75	6.45	647.95			01/28/00
				8.71	6.41	647.99			02/11/00
				8.71	6,41	647.99			02/25/00
				8.34	6.04	648.36	:		03/02/00
				8.28	5.98	648.42			03/07/00
	į l			8.48	6.18	648.22			03/16/00
	1			8.36	6.06	648.34			03/22/00
	1			8.95	6.65	647.75			04/04/00
				8.62	6.32	648.08			04/14/00
				8.72 8.53	6.42	647.98	:		04/28/00
				8.53 8.42	6.23 6.12	648.17 648.28			05/12/00
				8.42	6.12	648.39			05/25/00
				8.31 8.44	6.14	648.26			06/08/00 06/29/00
	1			8.22	5.92	648.48			07/14/00
				8.59	6.29	648.11			07/27/00
	1			8.86	6.56	647.84			08/09/00
	[			8.66	6.36	648.04			08/25/00
	-			8.65	6.35	648.05			09/08/00
				8.50	6.20	648.2			02/23/01
	[			8.19	5.89	648.51		-	03/02/01
				8.29	5.99	648.41			03/08/01
				8:30	6.00	648.4			03/05/01
	1			8.45	6.15	648.25			03/21/01

TABLE 8

# DEPTH TO GROUNDWATER MEASUREMENTS AND GROUNDWATER ELEVATIONS $\underline{\text{TANK 65/66 RELEASE SITE}}$

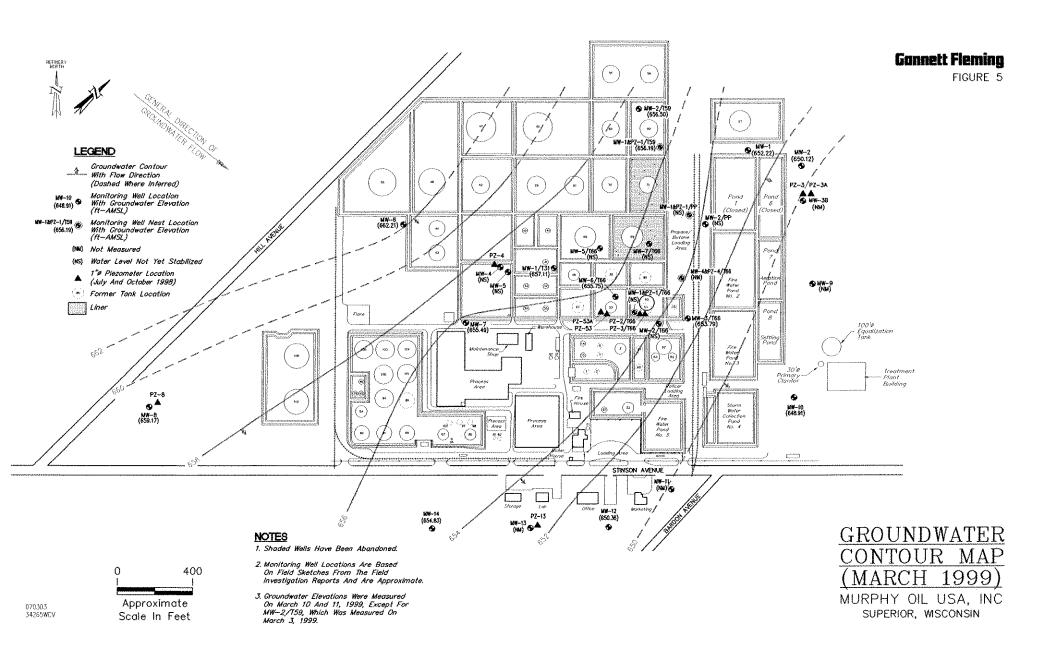
Well	Diameter	Relative Well	Relative	Depth to	Depth to Water	Water	Screened	Total	Date
Number	(inches)	Elevation (TOC)	Groundsurface	Water	(ft bgs)	Elevation (ft)	Interval (ft)	Depth From	Measured
			Elevation (AMSL)	From TOC (ft)				TOC (ft)	
PZ-4/T66	2			Dry		not surveyed			03/26/99
				Dry					04/06/99
				Dry					04/15/99
				16.52					11/17/99
				29.62					11/22/99
				30,79					11/24/99
1	! !			25.83					12/02/99
·				29.17					12/07/99
				28.80					12/16/99
				27.35				·	1 2/28/99
	ĺ			27.64					01/06/00
				26.85					01/18/00
				28.06				l l	01/27/00
				26.29					02/10/00
	[.	-		26.58				}	02/24/00
				29.02		1			03/02/00
1				29.60					03/07/00
1	1			28.14				ł	03/16/00
				29.64		***************************************			03/22/00
				27.04				<u> </u>	04/04/00
				28.40					04/13/00
	1			26.69					04/28/00
	·		ĺ	26.99				Ì	05/12/00
	ŀ			27.52				•	05/25/00
				27.09					06/08/00
			-	26.77	<u> </u>				06/29/00
				26.46					07/14/00
]]	j	J	J	27.41					07/27/00
	1			27.32					08/09/00
				26.42		<b>1</b>			08/25/00
	1		***************************************	27.35					09/07/00
		Ì		11.55					02/23/01
***************************************				28.16		<del> </del>		1	03/02/01
				28.86		1			03/08/01
ll		*		28.76	·····	<del>                                     </del>			03/15/01
l	]			30.15		<del> </del>	ĺ		03/21/01

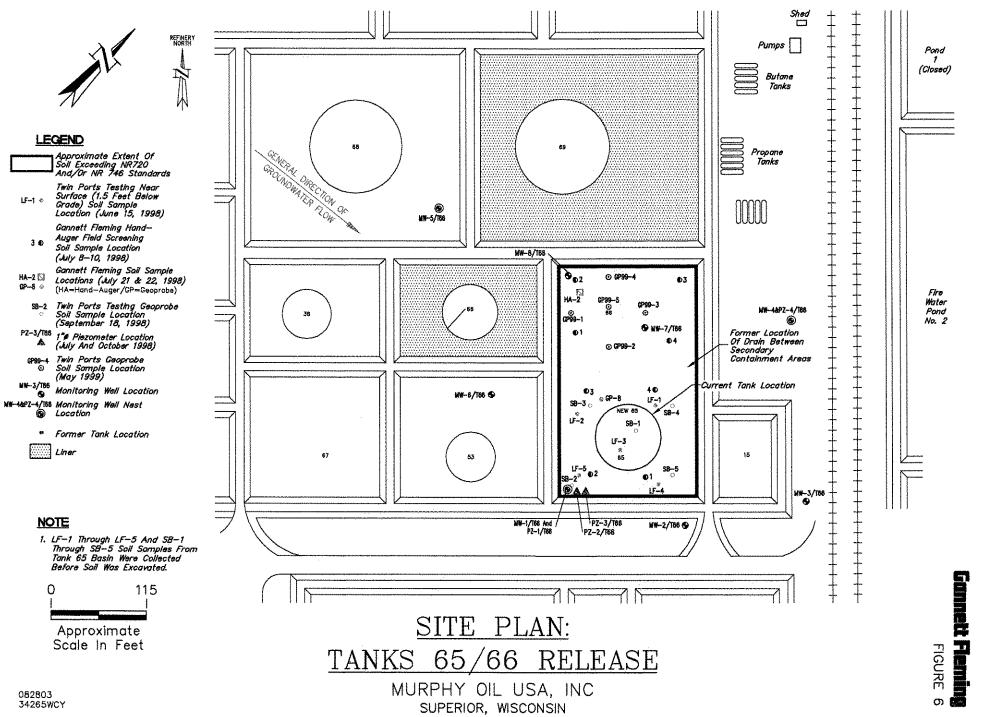
NOTES:

TOC = Top of casing.

AMSL = Above mean sea level.

 $\label{lem:mass} M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M: \color= M:$ 





082803 34265WCY MURPHY OIL USA, INC SUPERIOR, WISCONSIN



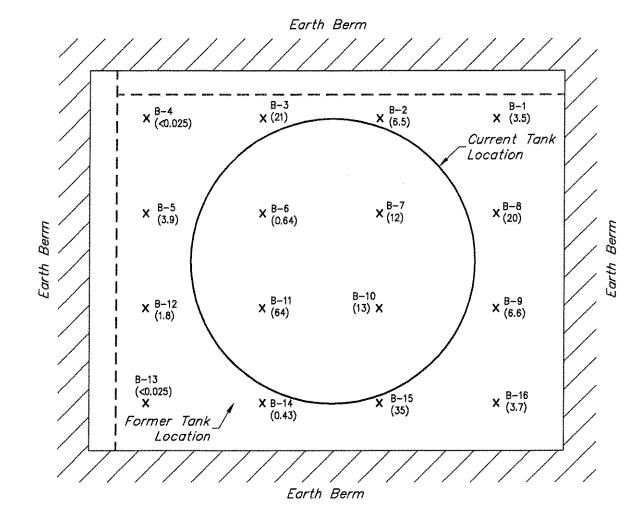
# **LEGEND**

Gannett Fleming Soil
Sample Location With
Benzene Concentration
(mg/kg)

- - Aboveground Piping

# **NOTES**

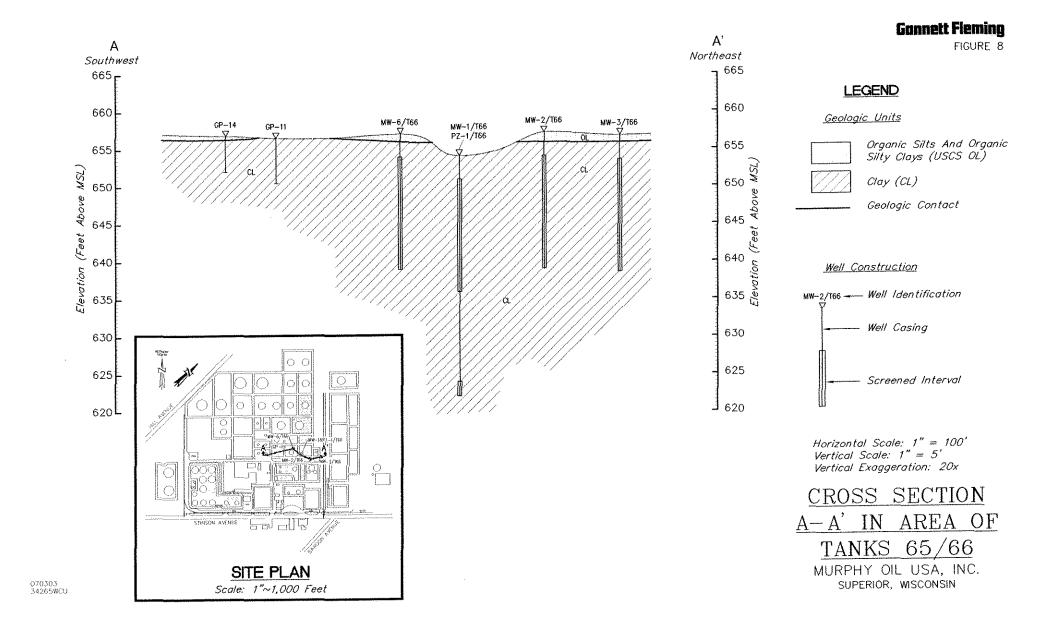
- 1. Soil Samples Were
  Collected On 10/20/98 At
  Approximately 0.5 Feet
  Below Grade Following The
  Removal Of Approximately
  2 Feet Of Soil From The
  Base Of The Basin.
- 2. Soil Sample, Piping Locations, And Basin Dimensions Are Approximate; Site Was Not Surveyed.





# POST-EXCAVATION SOIL SAMPLE LOCATIONS FROM BASE OF TANK 65 BASIN

MURPHY OIL USA, INC. SUPERIOR, WISCONSIN



MURPHY OIL USA, INC. 2400 STINSON AVENUE SUPERIOR, WISCONSIN TANKS 65/66 RELEASE SITE BRRTS No.: 02-16-222617

COMM No.: 54880-0456-07-L

I hereby state that the legal description of the Murphy Oil refinery in Superior as stated in the deed dated January 1, 1961, and included as Attachment A to this GIS Registry submittal is complete and accurate for all the property associated with the Tanks 65/66 release site that has groundwater contamination that exceeded Ch. NR 140 standards and soil that exceeded NR 720 and/or NR 746 standards at the time that closure was requested.

David J. Podratz

Printed Name

Signature

Refinera Manager

Sittle

7/9/03

Date

Document Number NOTICE OF RESTRICTIONS ON PROPERTY

Legal Description of the Property:

All the property described in Douglas County Warranty Deed No. 453215 and filed as Volume 266, Pages 647 through 655, on April 19, 1961 (copy of deed attached).

(legal description)

STATE OF WISCONSIN

) ss.

COUNTY OF DOUGLAS

DOCUMENT # 777115

Recorded
SEP. 30,2004 AT 01:30PM
KATHY F. HANSON
DOUGLAS COUNTY RECORDER
SUPERIOR, WI 54880-2769
Fee Amount: \$111.00

Return to: David Podratz Refinery Manager 2400 Stinson Ave., Superior, WI 54880

111/cx

Parcel Identification Number 01-801-03339-00

- Section 1. Murphy Oil USA, Inc. is the owner of the above-described property, and within this property lie the following seven areas where the discharge of petroleum products has occurred:
  - (a) Crude Unit Process Area [Wisconsin Department of Natural Resources (WDNR) Activity Number: 02-16-222638],
  - (b) Tanks S-1 and S-2 (WDNR Activity Number: 02-16-222670),
  - (c) Slop Oil Manifold (WDNR Activity Number: 02-16-246715),
  - (d) Tanks 65/66 Basin [WDNR Activity Number: 02-16-222617 and Wisconsin Department of Commerce ("Commerce") Number: 54880-0456-07-L],
  - (e) Propane/Butane Loading Area (WDNR Activity Number: 02-16-222628 and Commerce Number: 54880-0456-07-X), and
  - (f) Tanks 32/33 Basin (WDNR Activity Number: 02-16-222721 and Commerce Number: 54880-0456-07-S).
  - (g) Vapor Recovery Unit (WDNR Activity Number: 02-16-242301 and Commerce Number: 54880-0456-07-Q).

Exhibit 1, which is attached hereto and incorporated by reference, and labeled "Figure 1," shows the above described property and the locations of the Crude Unit Process Area, Tanks S-1 and S-2, Slop Oil Manifold, Tanks 65/66 Basin, Propane/Butane Loading Area, and Tanks 32/33 Basin. More detail regarding the location and layout for each of the six areas described above can be found in Exhibit 2, which is attached hereto and incorporated by reference, and labeled "Figure 2" for the Crude Unit Process Area; Exhibit 3, which is attached hereto and incorporated by reference, and labeled "Figure 3" for Tanks S-1 and S-2;

Exhibit 4, which is attached hereto and incorporated by reference, and labeled "Figure 4" for the Slop Oil Manifold; Exhibit 5, which is attached hereto and incorporated by reference, and labeled "Figure 5" for the Tanks 65/66 Basin; Exhibit 6, which is attached hereto and incorporated by reference, and labeled "Figure 6" for Propane/Butane Loading Area; Exhibit 7, which is attached hereto and incorporated by reference, and labeled "Figure 7" for Tanks 32/33 Basin, and Exhibit 8, which is attached hereto and incorporated by reference, and labeled "Figure 8" for the Vapor Recovery Unit.

- Section 2. Petroleum discharges have occurred at this property. Soils with concentrations of petroleum-related compounds above applicable Wisconsin Administrative Code NR 720.09 residual contaminant levels exist on this property at the Crude Unit Process Area, Tanks S-1 and S-2, Slop Oil Manifold, Tanks 65/66 Basin, Propane/Butane Loading Area, Tanks 32/33 Basin, and the Vapor Recovery Unit. Soils with concentrations of petroleum-related compounds above applicable Wisconsin Administrative Code NR 746.06 direct-contact levels exist on this property at Tanks S-1 and S-2, Slop Oil Manifold, Tanks 65/66 Basin, Propane/Butane Loading Area, Tanks 32/33 Basin, and the Vapor Recovery Unit.
- Section 3. It is the desire and intention of the property owner to impose restrictions on the designated portions of the property that will not make it necessary to conduct additional soil remediation activities at the above-described six areas at the present time. The owner hereby declares that all such designated portions of the property described herein are held and shall be held, conveyed or encumbered, leased, rented, used, occupied, and improved subject to the following limitations and/or restrictions described for each of the six areas noted above.

# Crude Unit Process Area

That the location of the Crude Unit Process Area (WDNR #02-16-222638) has been surveyed and identified as follows:

All that part of Block 18, West 27th Street, Townsite of Superior, Douglas County, Wisconsin, described as follows:

Commencing at the most easterly Corner of Block 18, West 27th Street, Townsite of Superior; thence South 48 degrees 50 minutes 03 seconds West, along the southeasterly line of said Block 18, a distance of 56.46 feet; thence North 41 degrees 09 minutes 57 seconds West, a distance of 6.35 feet to the Point of Beginning; thence South 46 degrees 05 minutes 39 seconds West, a distance of 23.58 feet; thence North 42 degrees 02 minutes 43 seconds West, 35.27 feet; thence North 49 degrees 34 minutes 13 seconds East, a distance of 24.60 feet; thence South 40 degrees 19 minutes 17 seconds East, a distance of 33.82 feet to the Point of Beginning.

Exhibit 9, which is attached hereto and incorporated herein by reference, and labeled "Sheet 3 of 15," is a survey drawing showing the Crude Unit Process Area with its legal description.

Soil containing concentrations of petroleum compounds above the applicable NR 720.09 residual contaminant levels (RCLs) that were in effect on the signature date of this document remains at this location at depths from approximately 1 foot to at least 5 feet below ground surface. The compounds that remain with concentrations above their applicable RCLs include diesel range organic (DRO) compounds, with concentrations as high as 1,500 milligrams per kilogram (mg/kg) and benzene, with concentrations as high as 0.366 mg/kg.

It has been shown that these residual contaminant levels are protective of the environment (groundwater) with the installation and maintenance of a barrier cap. In the event that petroleum-impacted soil is excavated from this area in the future, it will have to be managed in accordance with all applicable regulations and standards in effect at that time and may be considered a solid waste.

A surface barrier cap, currently consisting of concrete, shall be maintained over the area of petroleum-contaminated soil for the protection of groundwater until such time that 1) the soil is actively remediated or removed or 2) sampling shows contamination has degraded to concentrations that meet applicable regulatory requirements. The property owner shall maintain the integrity of the surface barrier cap in this area.

The concrete surface barrier cap shall be maintained in the Crude Unit Process Area shown on Exhibit 9 (Sheet 3 of 15), unless another barrier with an infiltration rate of 10⁻⁷ cm/sec or less is installed and maintained in its place. The existing concrete cap and any replacement barrier with an infiltration rate of 10⁻⁷ cm/sec or less shall be maintained in the above described area in compliance with the "Maintenance Plan for Surface Cap" dated May 2004 that was submitted to the Wisconsin Department of Natural Resources on May 6, 2004, by Gannett Fleming, Inc. on behalf of Murphy Oil USA, Inc., as required by section NR 724.13(2), Wis. Adm. Code (1997).

## Tanks S-1 and S-2 Basin

That the location of the Tanks S-1 and S-2 Basin (WDNR #02-16-222670) has been surveyed and identified as follows:

All that part of Block 17, West 27th Street, Townsite of Superior, Douglas County, Wisconsin described as follows:

Commencing at the most southerly corner of Block 17, West 27th Street, Townsite of Superior; thence North 48 degrees 50 minutes 03 seconds East, along the southeasterly line of said Block 17, a distance of 141.61 feet; thence North 41 degrees 09 minutes 57 seconds West, a distance of 37.37 feet to the Point of Beginning; thence North 39 degrees 54 minutes 44 seconds West, a distance of 38.44 feet; thence North 47 degrees 09 minutes 10 seconds East, a distance of 39.69 feet; thence North 33 degrees 46 minutes 23 seconds West, a distance of 1.00 feet; thence North 47 degrees 13 minutes 41 seconds East, a distance of 13.45 feet; thence South 41 degrees 51 minutes 06 seconds East, a distance of 39.85 feet; thence South 47 degrees 39 minutes 25 seconds West, a distance of 54.58 feet to the Point of Beginning.

Exhibit 10, which is attached hereto and incorporated herein by reference, and labeled "Sheet 6 of 15," is a survey drawing showing the Tanks S-1 and S-2 basin with its legal description.

Soil containing concentrations of petroleum compounds above the applicable NR 720.09 RCLs that were in effect on the signature date of this document remains at this location to a depth of at least 0.5 feet bgs. The compounds that remain with concentrations above their applicable RCLs include DRO, with concentrations as high as 43,200 mg/kg; benzene, with concentrations as high as 6.362 mg/kg; ethylbenzene, with concentrations as high as 20.915 mg/kg; and total xylenes, with concentrations as high as 64.48 mg/kg. In addition, soil containing concentrations of petroleum compounds that exceed the NR 746.06 direct-contact concentrations for benzene, ethylbenzene, total xylenes, trimethylbenzenes, and naphthalene also remains within 4 feet of the ground surface.

It has been shown that these residual contaminant levels are protective of human health and the environment with the installation and maintenance of a barrier cap. In the event that petroleum-impacted soil is excavated from this area in the future, it will have to be managed in accordance with all applicable regulations and standards in effect at that time and may be considered a solid waste.

A surface barrier cap, currently consisting of concrete, shall be maintained over the area of petroleum-contaminated soil for the protection of groundwater and for the protection of human health from direct contact until such time that 1) the soil is actively remediated or removed or 2) sampling shows contamination has degraded to concentrations that meet applicable regulatory requirements. The property owner shall maintain the integrity of the surface barrier cap in this area.

The concrete surface barrier cap shall be maintained in the Tanks S-1 and S-2 basin shown on Exhibit 10 (Sheet 6 of 15), unless another barrier with an infiltration rate of 10⁻⁷ cm/sec or less is installed and maintained in its place. The existing concrete cap and any replacement barrier with an infiltration rate of 10⁻⁷ cm/sec or less shall be maintained in the above described area in compliance with the "Maintenance Plan for Surface Cap" dated May 2004 that was submitted to the Wisconsin Department of Natural Resources on May 6, 2004, by Gannett Fleming, Inc. on behalf of Murphy Oil USA, Inc. as required by Section NR 724.13(2), Wis. Adm. Code (1997).

### Slop Oil Manifold Area

That the location of the Slop Oil Manifold Area (WDNR #02-16-246715) has been surveyed and identified as follows:

That part of Block 15, West 27th Street and that part of vacated Thompson Avenue (23rd Avenue East), Townsite of Superior, Douglas County, Wisconsin described as follows:

Commencing at the most westerly Corner of Block 15, West 27th Street, Townsite of Superior; thence North 48 degrees 50 minutes 03 seconds East, along the northwesterly line of said Block 15, a distance of 120.16 feet to the Point of Beginning; thence North 40 degrees 37 minutes 53 seconds West, a distance of 50.00 feet; thence North 48 degrees 50 minutes 03 seconds East,

along the centerline of said vacated Thompson Avenue, a distance of 32.93 feet; thence South 40 degrees 26 minutes 04 seconds West, a distance of 39.48 feet; thence South 50 degrees 06 minutes 04 seconds West, a distance of 7.37 feet; thence 40 degrees 33 minutes 29 seconds East, a distance of 5.33 feet; thence North 49 degrees 26 minutes 31 seconds East, a distance of 29.52 feet; thence South 40 degrees 37 minutes 53 seconds East, a distance of 22.11 feet; thence South 49 degrees 22 minutes 07 seconds West, a distance of 54.94 feet; thence North 40 degrees 37 minutes 53 seconds West, a distance of 16.56 feet to the Point of Beginning.

Exhibit 11, which is attached hereto and incorporated herein by reference, and labeled "Sheet 4 of 15," is a survey drawing showing the Slop Oil Manifold Area with its legal description.

Structural impediments existing at the time of soil remediation made it impractical to remove all contaminated soil in this area of the property. If the structural impediments in this area are removed, the property owner shall conduct an investigation to determine the degree and extent of petroleum contamination. To the extent that contamination is found at that time, the Wisconsin Department of Natural Resources shall be notified immediately, and the contamination shall be remediated in accordance with applicable statutes and rules.

Soil containing concentrations of petroleum compounds above the applicable NR 720.09 RCLs that were in effect on the signature date of this document remains at this location to a depth of at least 1.5 feet bgs. The compounds that remain with concentrations above their applicable RCLs include DRO, with concentrations as high as 11,600 mg/kg; gasoline range organic compounds, with concentrations as high as 830 mg/kg; benzene, with concentrations as high as 2.252 mg/kg; ethylbenzene, with concentrations as high as 48.615 mg/kg; toluene, with concentrations as high as 25.399 mg/kg; and total xylenes, with concentrations as high as 185.035 mg/kg. In addition, soil containing concentrations of petroleum compounds that exceed the NR 746.06 direct-contact concentrations for benzene, ethylbenzene, total xylenes, trimethylbenzenes, and naphthalene also remains within 4 feet of the ground surface.

It has been shown that these residual contaminant levels are protective of human health and the environment with the installation and maintenance of a barrier cap. In the event that petroleum-impacted soil is excavated from this area in the future, it will have to be managed in accordance with all applicable regulations and standards in effect at that time and may be considered a solid waste.

A surface barrier cap, currently consisting of a 60-mil, high-density polyethylene (HDPE) liner, shall be maintained over the area of petroleum-contaminated soil for the protection of groundwater and for the protection of human health from direct contact until such time that 1) the soil is actively remediated or removed or 2) sampling shows contamination has degraded to concentrations protective of the environment and human health. The property owner shall maintain the integrity of the surface barrier cap in this area.

The HDPE surface barrier cap shall be maintained in the Slop Oil Manifold Area shown on Exhibit 11 (Sheet 4 of 15), unless another barrier with an infiltration rate of  $10^{-7}$  cm/sec or less is installed and maintained in its place. The existing HDPE cap and any replacement barrier with an infiltration rate of  $10^{-7}$  cm/sec or less shall be maintained in the above described area in

compliance with the "Maintenance Plan for Surface Cap" dated May 2004 that was submitted to the Wisconsin Department of Natural Resources on May 6, 2004, by Gannett Fleming, Inc. on behalf of Murphy Oil USA, Inc. as required by Section NR 724.13(2), Wis. Adm. Code (1997).

### Tanks 65/66 Basin

That the location of the Tanks 65/66 Basin (WDNR #02-16-222617) has been surveyed and identified as follows:

All those parts of Block 17, 18, 19 & 20, West 25th Street, together with those parts of vacated Becker Avenue and 25th Street, all in the Townsite of Superior, Douglas County, Wisconsin, described as follows:

Commencing at the most westerly Corner of Block 17, West 25th Street, Townsite of Superior; thence North 48 degrees 50 minutes 03 seconds East, along the northwesterly line of sad Block 17, a distance of 73.65 feet to the Point of Beginning; thence South 37 degrees 38 minutes 12 seconds East, a distance of 134.76 feet; thence South 52 degrees 21 minutes 48 seconds West, a distance of 155.00 feet; thence North 37 degrees 38 minutes 12 seconds West, a distance of 270.00 feet; thence North 52 degrees 21 minutes 48 seconds East, a distance of 155.00 feet; thence South 37 degrees 38 minutes 12 seconds East, a distance of 135.24 feet to the Point of Beginning.

Exhibit 12, which is attached hereto and incorporated herein by reference, and labeled "Sheet 7 of 15," is a survey drawing showing the Tanks 65/66 Basin with its legal description.

Residual petroleum-contaminated soils have been identified within the Tanks 65/66 Basin at concentrations that exceed the NR 746.06 direct-contact standards. The residual contaminated soils are believed to be present throughout the tank basin. Commerce has agreed that enforcement of the "**limited access**" requirements included in this restriction will be protective of human health. If contaminated soil is removed, it shall be handled in accordance with all applicable laws and regulations (File references: Commerce #54880-0456-07 and WDNR BRRTS #02-16-222617).

This restriction requires "**limited access**" to the site, which includes (at a minimum) the area outlined with a thicker black line, as the "*Approximate Extent of Soil Exceeding NR 720 And/Or NR 746 Standards*" on attached Exhibit 13 (labeled "Figure 9"). To comply with the requirement of "**limited access**," gated fencing of an appropriate height that encompasses the refinery site and that restricts access to the Tanks 65/66 Basin shall remain in place until it is determined that the risk to human health from direct contact has been remediated. Any person entering the Tanks 65/66 Basin must be knowledgeable of the soil contamination that is present and take appropriate measures to protect themselves from the identified direct-contact risk. Exhibit 14 (labeled "Figure 10") shows the post-excavation soil sample locations collected from the Tank 65 basin. Exhibit 15, which is attached hereto and incorporated herein by reference, and labeled "Tables 1 through 5," present the results for the soil samples collected during this Tanks 65/66 Basin investigation. Exhibits 13 and 14 (labeled "Figures 9 and 10") show the sample locations.

# Propane/Butane Loading Area

That the location of the Propane/Butane Loading Area (WDNR #02-16-222628) has been surveyed and identified as follows:

All that part of Block 19, West 25th Street, Townsite of Superior, Douglas County, Wisconsin, described as follows:

Commencing at the most northerly Corner of Block 19, West 25th Street, Townsite of Superior; thence South 41 degrees 10 minutes 13 seconds East, along the northeasterly line of said Block 19, a distance of 143.20 feet; thence South 48 degrees 49 minutes 47 seconds West, a distance of 29.73 feet to the Point of Beginning; thence South 40 degrees 55 minutes 55 seconds East, a distance of 58.00 feet; thence South 49 degrees 04 minutes 05 seconds West, a distance of 39.00 feet; thence North 40 degrees 55 minutes 55 seconds West, a distance of 58.00 feet; thence North 49 degrees 04 minutes 05 seconds East, a distance of 39.00 feet to the Point of Beginning.

Exhibit 16, which is attached hereto and incorporated herein by reference, and labeled "Sheet 8 of 15," is a survey drawing of the Propane/Butane Loading Area with its legal description.

Residual petroleum-contaminated soils have been identified within the Propane/Butane Loading Area at concentrations that exceed the NR 746.06 direct-contact standards. Residual contaminated soil was identified in soil boring GP-25. Commerce has agreed that enforcement of the "**limited access**" requirements included in this restriction will be protective of human health. If contaminated soil is removed, it shall be handled in accordance with all applicable laws and regulations (File references: Commerce #54880-0456-07-L and WDNR BRRTS #02-16-222628).

This restriction requires "limited access" to the site. To comply with the requirement of "limited access," gated fencing of an appropriate height that encompasses the refinery site and that restricts access to the Propane/Butane Loading Area shall remain in place until it is determined that the risk to human health from direct contact has been remediated. Any person entering the Propane/Butane Loading Area must be knowledgeable of the soil contamination that is present and take appropriate measures to protect themselves from the identified direct-contact risk. Exhibit 17, which is attached hereto and incorporated herein by reference, and labeled "Figure 11," shows the locations of all soil samples collected during the investigation of the Propane/Butane Loading Area and the approximate extent of soil exceeding NR 720.09 and/or NR 746 standards. Exhibit 18 (labeled Table 6) presents the results for the soil samples collected during this investigation.

### Tanks 32/33 Basin

That the location of the Tanks 32/33 Basin (WDNR #02-16-222721) has been surveyed and identified as follows:

Those parts of Blocks 17 and 19, West 27th Street together with those parts of vacated Becker Avenue and West 27th Street, Townsite of Superior, Douglas County, Wisconsin, described as follows:

Commencing at the most northerly Corner of Block 17, West 27th Street, Townsite of Superior; thence South 48 degrees 50 minutes 03 seconds West along the northwesterly line of said Block 17, a distance of 71.10 feet to the Point of Beginning; thence South 41 degrees 10 minutes 13 seconds East, a distance of 25.00 feet; thence South 48 degrees 50 minutes 03 seconds West along a line 25.00 feet distant, measured at right angles to and parallel with the northwesterly line of said Block17, a distance of 217.00 feet, thence North 41 degrees 10 minutes 13 seconds West along a line 8.00 feet distant, measured at right angles to and parallel with the centerline of vacated West 27th Street, a distance of 117.00 feet; thence North 48 degrees 50 minute 03 seconds East, a distance of 217.00 feet; thence South 41 degrees 10 minutes 13 seconds East, a distance of 92.00 feet to the Point of Beginning.

Exhibit 19, which is attached hereto and incorporated herein by reference, and labeled "Sheet 13 of 15," is a survey drawing showing the Tanks 32/33 Basin with its legal description.

Residual petroleum-contaminated soils have been identified within the Tanks 32/33 Basin at concentrations that exceed the NR 746.06 direct-contact standards. Residual contaminated soil was identified in soil borings B32-1 through B32-4, B33-1, and B33-3. Commerce has agreed that enforcement of the "**limited access**" requirements included in this restriction will be protective of human health. If contaminated soil is removed, it shall be dealt with in accordance with all applicable laws and regulations (File references: Commerce #54880-0456-07-S and WDNR BRRTS #02-16-222721).

This restriction requires "limited access" to the site. To comply with the requirement of "limited access," gated fencing of an appropriate height that encompasses the refinery site that restricts access to the Tanks 32/33 Basin shall remain in place until it is determined that the risk to human health from direct contact has been remediated. Any person entering the site must be knowledgeable of the contamination that is present and take appropriate measures to protect themselves from the identified direct-contact risk. Exhibit 7, which is attached hereto and incorporated herein by reference, and labeled "Figure 7," shows the locations of all soil samples collected during the investigation of the Tanks 32/33 Basin and the approximate extent of soil exceeding NR 720.09 and/or NR 746.06 standards. Exhibit 20, which is attached hereto and incorporated herein by reference, and labeled "Table 7," presents the results for the soil samples collected during this investigation.

# Vapor Recovery Unit

That the location of the Vapor Recovery Unit (COMM #54880-0456-07-Q and WDNR #02-16-242301) has been surveyed and identified as follows:

All that part of Block 16, West 25th Street, Townsite of Superior, Douglas County, Wisconsin, described as follows:

Commencing at the most easterly corner of Block 16, West 25th Street, Townsite of Superior; thence North 41 degrees 10 minutes 13 seconds West, along the northeasterly line of said Block 16, a distance of 152.22 feet; thence South 48 degrees 49 minutes 47 seconds West, a distance of 134.72 feet to the Point of Beginning; thence South 47 degrees 54 minutes 34 seconds West, a distance of 12.50 feet; thence North 41 degrees 27 minutes 49 seconds West, a distance of 26.50 feet; thence North 48 degrees 32 minutes 11 seconds East, a distance of 12.50 feet; thence South 41 degrees 27 minutes 49 seconds East, a distance of 26.37 feet to the Point of Beginning.

Exhibit 21, which is attached hereto and incorporated herein by reference, and labeled "Sheet 5 of 15," is a survey drawing showing the Vapor Recovery unit with its legal description.

Soil containing concentrations of petroleum compounds above the applicable NR 720.09 RCLs that were in effect on the signature date of his document remains at this location to a depth of at least 2 feet bgs. The compounds that remain with concentrations above their applicable RCLs include gasoline range organics, with concentrations as high as 2,700 mg/kg; benzene, with concentrations as high as 4.0 mg/kg; ethylbenzene, with concentrations as high as 3.8 mg/kg; toluene, with concentrations as high as 4.4 mg/kg; and total xylenes, with concentrations as high as 131 mg/kg. In addition, soil containing concentrations of petroleum compounds that exceed the NR 746.06 direct-contact concentrations for benzene and total xylenes also remain within 4 feet of the ground surface.

It has been shown that these residual contaminant levels are protective of human health and the environment with the installation and maintenance of a barrier cap. In the event that petroleum-impacted soil is excavated from this area in the future, it will have to be managed in accordance with all applicable regulations and standards in effect at that time and may be considered a solid waste.

A surface barrier cap, currently consisting of concrete, shall be maintained over the area of petroleum-contaminated soil for the protection of groundwater and for the protection of human health from direct contact until such time that 1) the soil is actively remediated or removed or 2) sampling shows contamination has degraded to concentrations protective of the environment and human health.

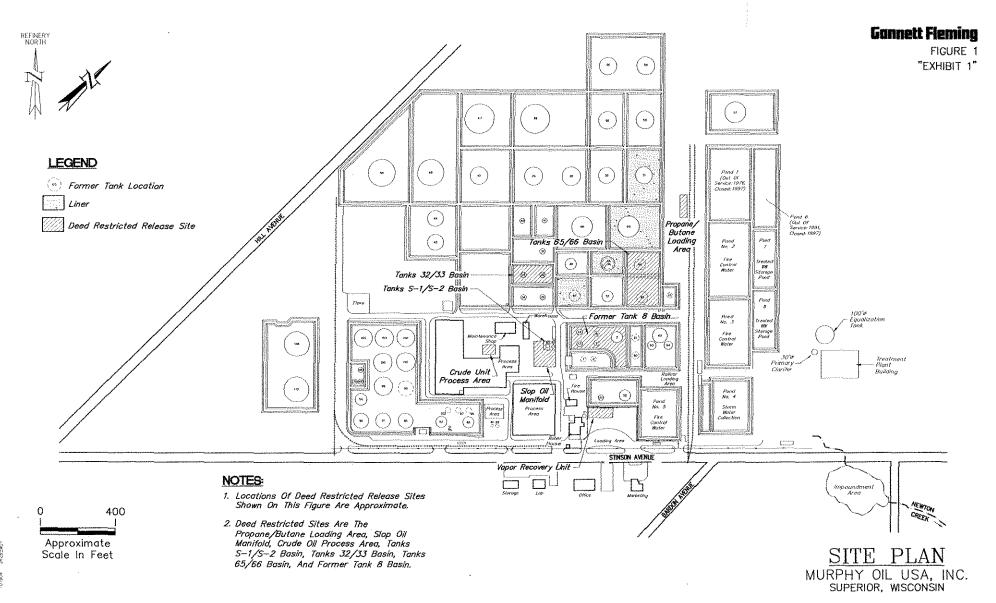
The concrete surface barrier cap shall be maintained in the Vapor Recovery Unit shown on Exhibit 21 (Sheet 5 of 15), unless another barrier with an infiltration rate of 10⁻⁷ cm/sec or less is installed and maintained in its place. The existing concrete cap and any replacement barrier with an infiltration rate of 10⁻⁷ cm/sec or less shall be maintained in the above described area in compliance with the "Maintenance Plan for Surface Cap" dated June 2004 that was submitted to the Wisconsin Department of Natural Resources on June 15, 2004, by Gannett Fleming, Inc. on behalf of Murphy Oil USA, Inc. as required by Section NR 724.13(2), Wis. Adm. Code (1997).

Any person who is or becomes owner of the property described above may request that the Wisconsin Department of Natural Resources or Wisconsin Department of Commerce (as applicable), or its successor, issue a determination that the restrictions set forth in the covenant are no longer required. That property owner shall provide any and all necessary information to the applicable Department in order for the applicable Department to be able to make a

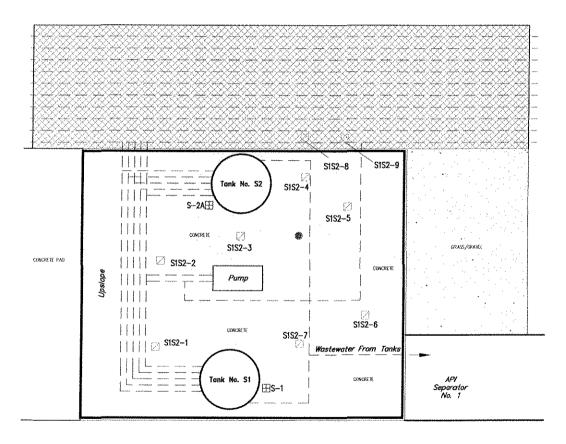
determination. Upon receipt of such a request, the applicable Department shall determine whether or not the restrictions contained herein can be extinguished. Conditions under which a restriction may be extinguished will be determined in accordance with the standards, rules, and laws in effect at the time of such request. If the applicable Department determines that the restrictions can be extinguished, an affidavit, with a copy of the applicable Department's written determination, may be recorded to give notice that this restriction or portions of this restriction are no longer binding. Any restriction placed upon this property shall not be extinguished without the applicable Department's written determination.

IN WITNESS WHEREOF, the owner of the property has executed this document, this day of 2004.
By signing this document, [he/she] acknowledges that [he/she] is duly authorized to sign this document on behalf of Murphy Oil USA, Inc.
Signature: Wan Mark
Printed Name: David J. Podratz
Title: Refinery Manager
Subscribed and sworn to before me this 4 day of Sept 2004.  Signature: Lucklund
Signature: Syn M. Wicklund
Notary Public, State of Wisconsin
My commission expires on $9/07/08$
This document was drafted by:
Atty Richard J. Lewandowski DeWitt Ross & Stevens, S.C. 2 E. Mifflin St., Suite 600 Madison, WI 53703

Tel: 608-255-8891



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O 15
Approximate
Scale In Feet

ASPHALT ROAD

# **Gannett Fleming**

FIGURE 3
"EXHIBIT 3"

## **LEGEND**

A/

Area Covered With Pea Gravel Over 60 MIL HDPE Liner



Area Covered With Concrete Slab With 6" High Curb



Twin Ports Testing Post—Excavation Soil Sample Location (September/October 1997)

S1S2-1

Gannett Fleming Soil Sample Location @ 0.5' Depth

(June 1999)

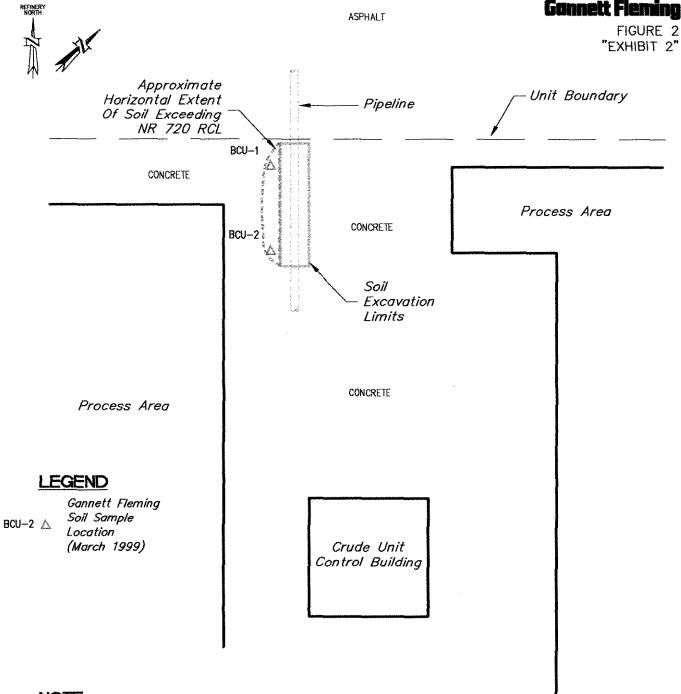
Aboveground Piping

Concrete Sump

### NOTE:

The Location Of Tanks, Piping, And Soil Samples Shown On This Figure Are Based On Field Measurements And Are Considered To Be Approximate.

SOIL SAMPLE
LOCATIONS AT
SLOP OIL TANKS
S1 AND S2
MURPHY OIL USA, INC.
SUPERIOR, WISCONSIN



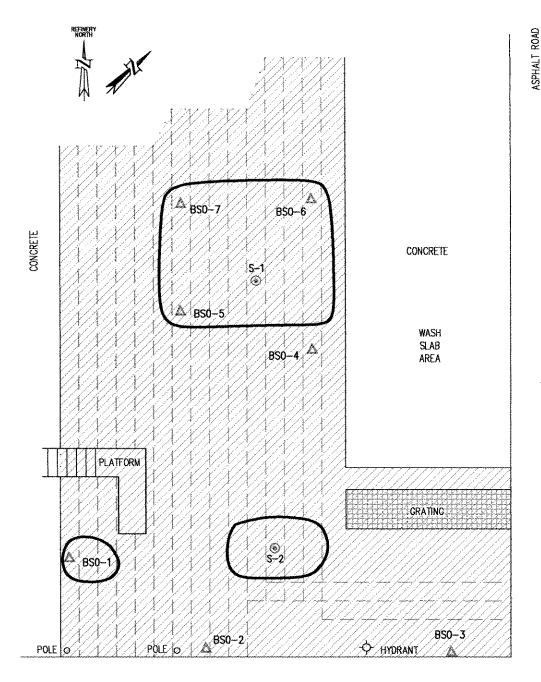
# NOTE:

Site Layout And Sample Locations Shown On This Figure Are Based On Field Measurements And Are Considered To Be Approximate.

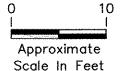


# SOIL SAMPLE LOCATIONS AT CRUDE UNIT PROCESS AREA

MURPHY OIL USA, INC. SUPERIOR, WISCONSIN



ASPHALT ROAD



# SLOP OIL

MURPHY OIL USA, INC. SUPERIOR. WISCONSIN

# **Gannett Fleming**

FIGURE 4 "EXHIBIT 4"

# **LEGEND**

Area Covered With 60 MIL HDPE Liner Following The Collection Of Soil Samples And Excavation Of Soil

Twin Ports Soil Sample Location (3) (December 1999)

Gannett Fleming Soil BS0-5 Sample Location (August 1999)

Aboveground Piping

Approximate Extent Of Soils Exceeding NR 720/746 Standards

# NOTES:

- 1. Site Layout And Sample Locations Shown On This Figure Are Based On Field Measurements And Are Considered To Be Approximate.
- 2.This Figure Is Based On A Twin Ports Testing Site Plan Of The Slop Oil Area Showing The Extent Of The 12/99 Excavation.
- 3. Piping Shown On Figure Is Approximately 3 Feet Above Grade.
- 4. Not Shown On Figure Is An Upper Piping Manifold Approximately 20 Feet Above Grade In The Eastern And Southeastern Areas Of Site.

ASPHALT ROAD

34265WDF

031704



### LEGEND

Twin Ports Testing Near Surface (1,5 Feet Belaw Grade) Soil Sample Location (June 15, 1998)

Gannett Fleming Hand-Auger Field Screening Soil Sample Location (July 8-10, 1998)

Gannett Fleming Soil Sample HA-2 🖸 Locations (July 21 & 22, 1998) (HA∞Hond-Auger/GP≈Geoprobe)

Twin Ports Testing Geoprobe Soll Sample Location (September 18, 1998) SB--2

PZ-3/T66 1"# Piezometer Location (July And October 1998)

Twin Ports Geoprobe Soil Sample Location (May 1999) GP99--4

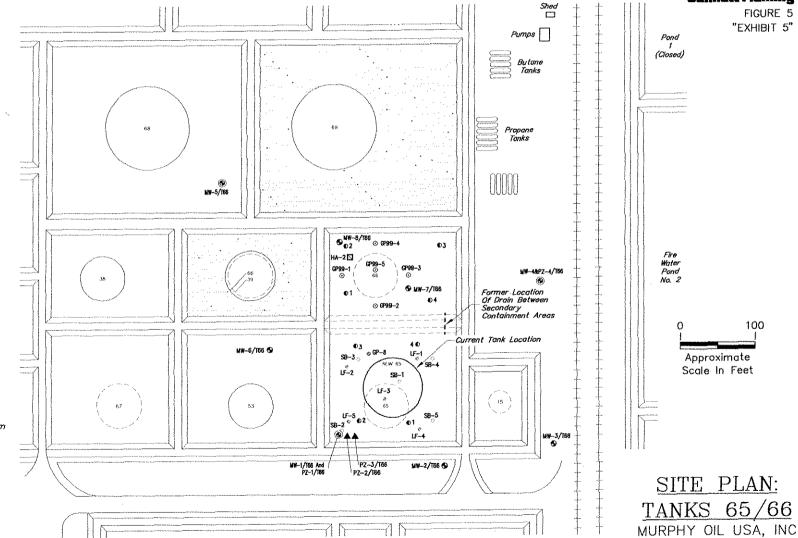
MW-3/186 **©** Monitoring Well Location MW-4APZ-4/186 Monitoring Well Nest Location

(a) Former Tank Location

Liner

### NOTES:

- 1. LF-1 Through LF-5 And SB-1 Through SB-5 Soil Samples From Tank 65 Basin Were Collected Before Soil Was Excavated.
- 2. Site Layout And Sample Locations Shown On This Figure Are Based On Field Measurements And Are Considered To Be Approximate.

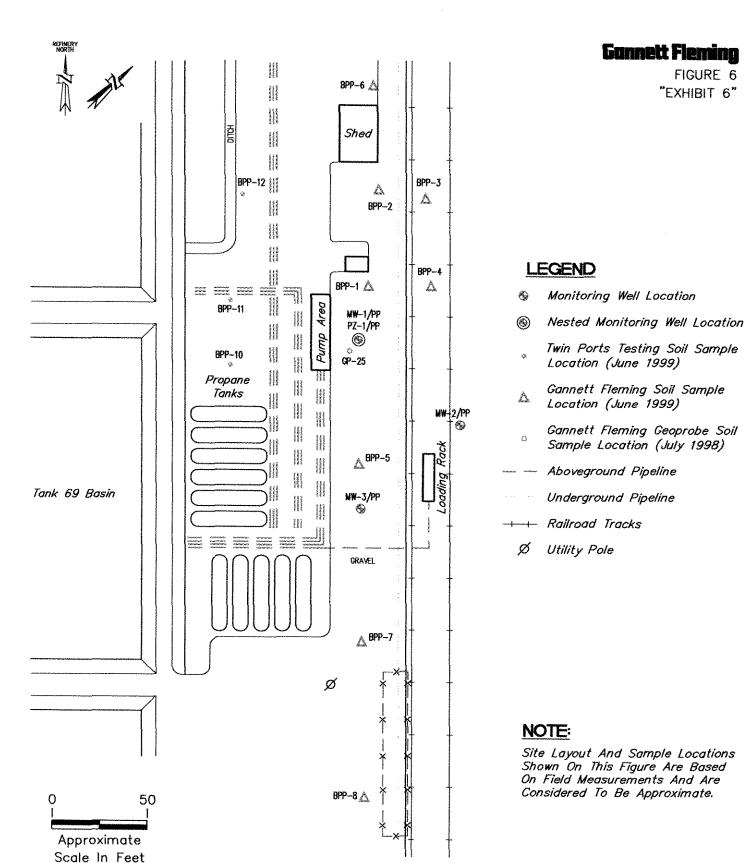


**Gannett Fleming** 

FIGURE 5

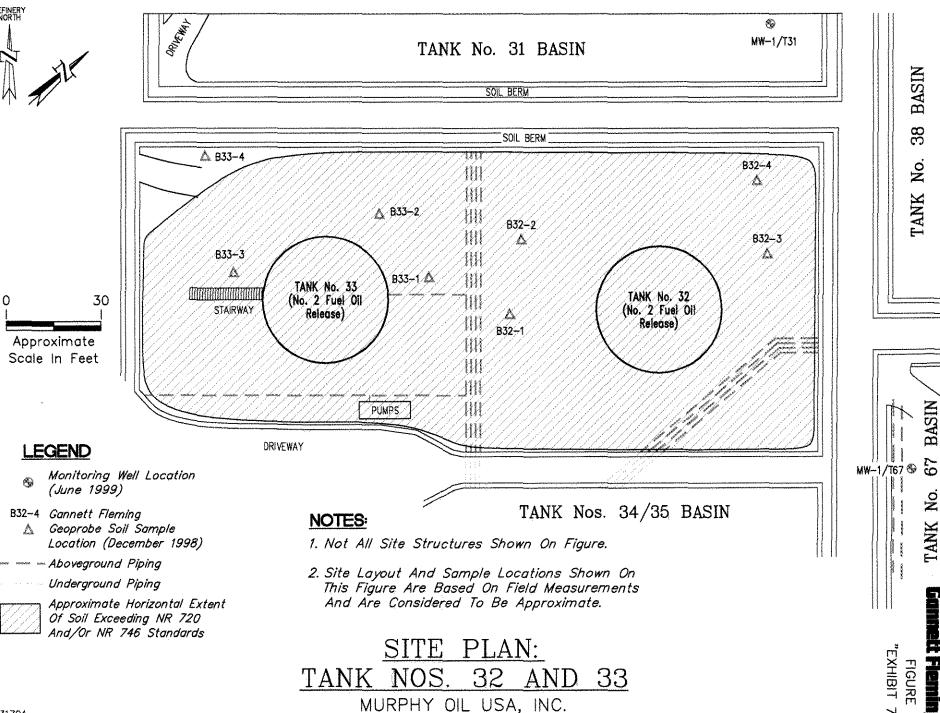
100

SUPERIOR, WISCONSIN



# SAMPLE LOCATIONS AT PROPANE/BUTANE LOADING AREA MURPHY OIL USA, INC

MURPHY OIL USA, INC SUPERIOR, WISCONSIN



SUPERIOR, WISCONSIN

031704 34265WDZ

FIGURE 8 "EXHIBIT 8"

A The

### LECEND

Extent Of Soil Excavation (July 2000)

S-2 ≈ Twin Ports Soil Sample Location (July 2000)

Extent Of Soll Excavation (December 1899)

S-2 Twin Ports Soil Sample Location (December 1999)

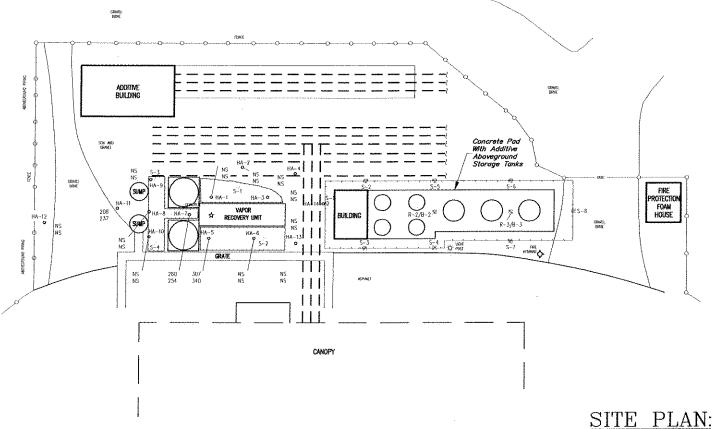
Source Of October 1999 Release (200-Gallons Of Gasoline)

- - Aboveground Piping

307 = PID Reading At 1 Foot Depth 340 = PID Reading At 2 Foot Depth NS = Not Sampled

#### NOTES:

- 1. Site Layout And Sample Locations Shown On This Figure Are Based On Field Measurements And Are To Be Considered Approximate.
- 2. It Should Be Noted That Due To The Presence Of A Significant Amount Of Aboveground And Underground Utilities, As Weil As Other Structures in This Area, There is Extremely Limited Access.
- 3. Sample Locations Based On Site Plan Prepared By Twin Ports Testing.
- Concrete Pad With Additive Aboveground Storage Tanks Installed In September 2000.

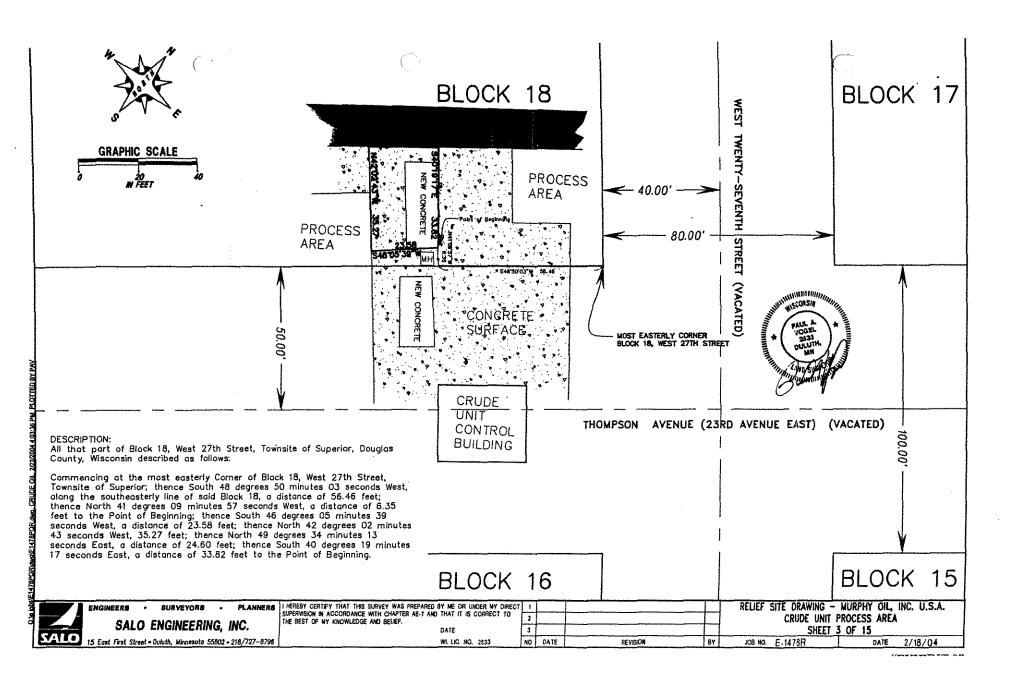


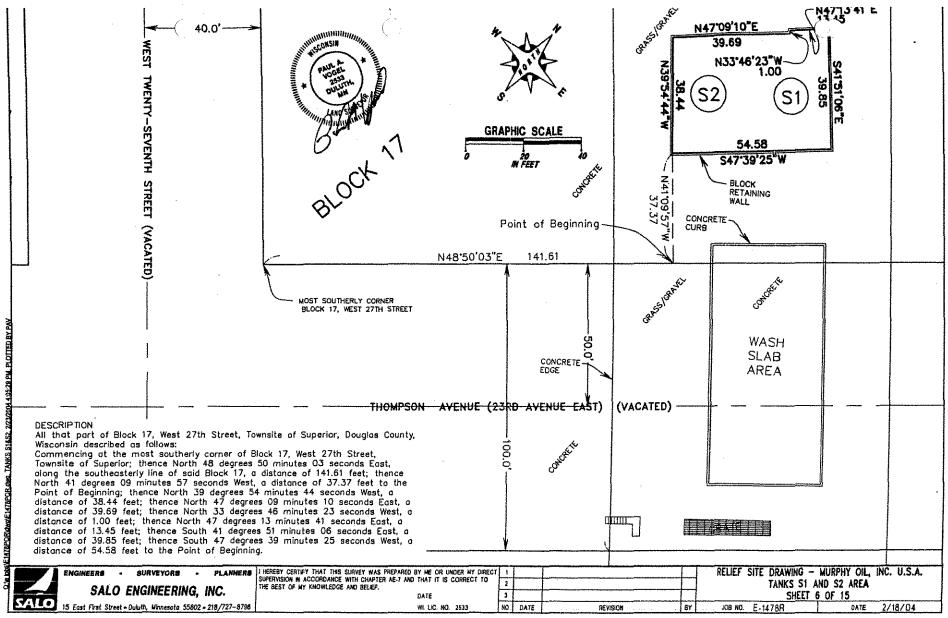
VAPOR RECOVERY UNIT

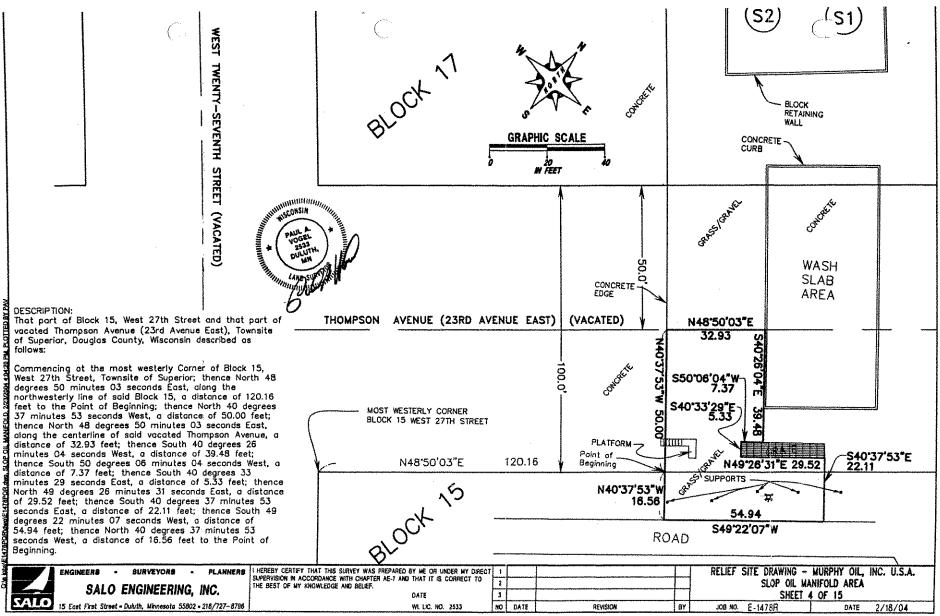
MURPHY OIL USA, INC. SUPERIOR, WISCONSIN

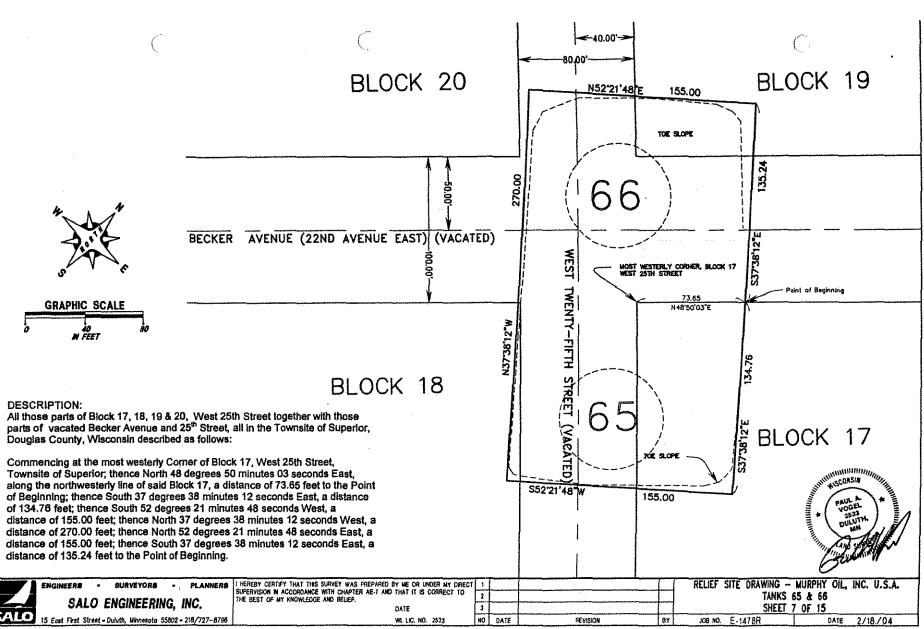
O 30

Approximate
Scale in Feet









"EVLIDIT 10"



### LEGEND

Approximate Horizontol Extent Of Soil Exceeding NR 720 And/Or NR 746 Standards

Twin Ports Testing Near Surface (1.5 Feet Below Grade) Soil Sample Location (June 15, 1998)

Gannett Fleming Hand-Auger Field Screening Soil Sample Location (July 8–10, 1998)

Gannett Fleming Soil Sample
Locations (July 21 & 22, 1998)
(HA=Hand-Auger/SP=Geoprobe)

S8-2 Twin Ports Testing Geoprobe
Soil Sample Location
(September 18, 1998)

PZ-3/T66 1*# Piezometer Location (July And October 1998)

Greg... Twin Ports Geoprobe

Soil Sample Location
(May 1999)

MM-3/166 Monitoring Well Location

WW-4872-4/166 Monitoring Well Nest

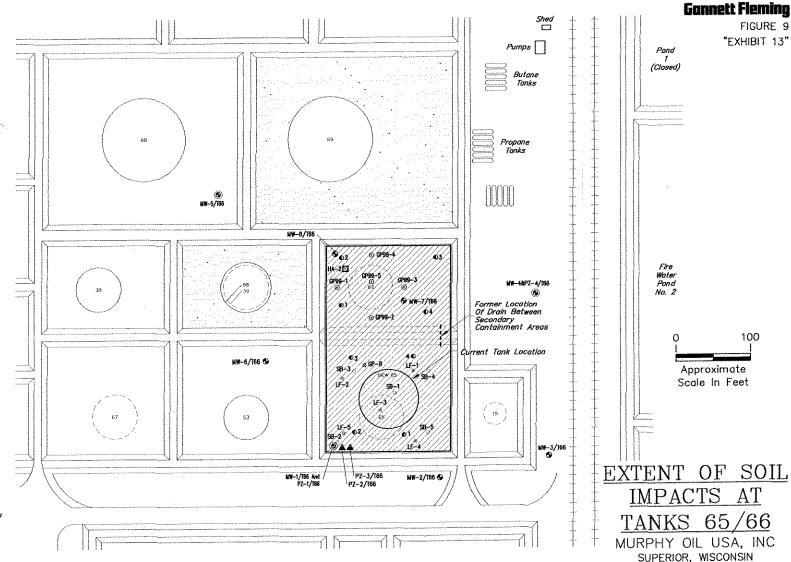
© Location

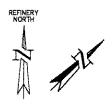
Former Tank Location

Liner

### NOTES:

- 1. LF-1 Through LF-5 And SB-1 Through SB-5 Soil Samples From Tank 65 Basin Were Collected Before Soil Was Excavated.
- Site Layout And Sample Locations Shown On This Figure Are Based On Field Measurements And Are Considered To Be Approximate.





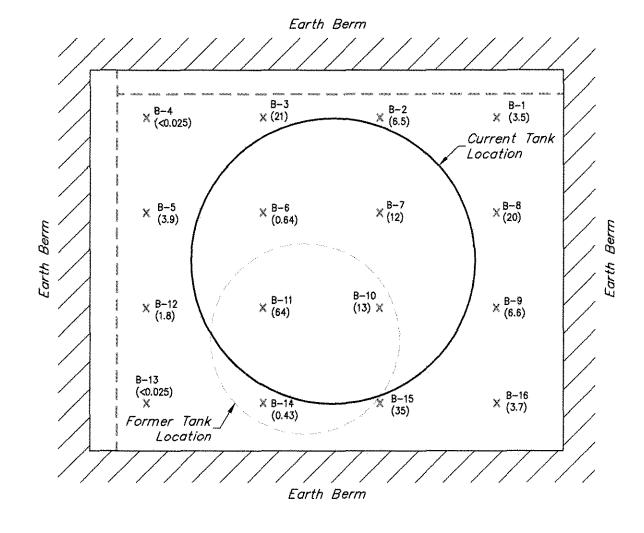
# **LEGEND**

Gannett Fleming Soil
Sample Location With
Benzene Concentration
(mg/kg)

Aboveground Piping

# NOTES

- 1. Soil Samples Were Collected
  On 10/20/98 At
  Approximately 0.5 Feet Below
  Grade Following The Removal
  Of Approximately 2 Feet Of
  Soil From The Base Of The
  Basin.
- 2. Soil Sample And Piping Locations And Basin Dimensions Shown On This Figure Are Based On Field Measurements And Are Considered To Be Approximate.





# POST-EXCAVATION SOIL SAMPLE LOCATIONS FROM BASE OF TANK 65 BASIN

MURPHY OIL USA, INC. SUPERIOR, WISCONSIN

# MURPHY OIL USA, INC. SUPERIOR, WISCONSIN

### TABLE 1

# PRE-EXCAVATION SOIL SAMPLING RESULTS (mg/kg) FORMER TANK 65 BASIN JUNE 19, 1998

Sample ID & Sample Depth (ft)	GRO	Benzene	Ethylbenzene	MTBE	Toluene	1,3,5-TMB	1,2,4-TMB	Total Xylenes
LF-1 (1.5')	5,900	150	43	56	68	100	240	430
LF-2 (1.5')	3,000	1.7	10	<1.0	5.6	82	180	171
LF-3 (1.5')	4,200	55	42	26	180	48	150	390
LF-4 (1.5')	14	0.27	0.042	<0.025	0.037	0.037	<0.25	0.091
LF-5 (1.5')	10,000	120	220	20	700	150	450	1,140
NR 720 RCL	250	0.0055	2.9	NS	1.5	NS	NS	4.1

# NOTES:

Samples collected by Twin Ports Testing, Inc. and analyzed by EnChem Inc.

Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis.

Results in bold exceed applicable generic NR 720 RCLs.

NR 720 RCL = Wisconsin Administrative Code NR 720 residual contaminant level.

NS = No standard.

### TABLE 2

# SOIL SAMPLING RESULTS (mg/kg) TANKS 65 AND 66 BASINS - JULY 21 AND 22, 1998

	Sample ID and Sai	mple Depth (feet)
Parameter	GP	-8
	1-1.5	4.5-5
DRO	110	130
GRO	1,000	740
Benzene	13	19
Ethylbenzene	20	15
Toluene	42	67
Xylenes	156	110
MIBE	<0.45	<0.45
1,2,4-TMB	66	48
1,3,5-TMB	27	20
Ethylene dibromide (EDB)	<0.35	<0.35
Lead	11.6	NA
Detected Polycyclic Aromatic Hydroca	rbons	
Acenaphthene	<0.048	<0.048
Acenaphthylene	<0.051	0.34
Anthracene	<0.023	<0.023
Benzo(a)anthracene	<0.0020	<0.0020
Benzo(a)pyrene	<0.0015	<0.0015
Benzo(b)fluoranthene	<0.0015	<0.0015
Benzo(k)fluoranthene	<0.0015	<0.0015
Fluoranthene	<0.0049	0.032
Fluorene	<0.0086	<0.0086
Indeno(1,2,3-cd)pyrene	<0.0094	<0.0094
Naphthalene	1.6	0.93
1-Methyl Naphthalene	1.0	0.47
2-Methyl Naphthalene	2.3	1.1
Phenanthrene	0.045	<0.0035
Ругепе	0.20	0.052

### **Gannett Fleming**

Table 2 Continued . . .

	Sample ID and Sa	mple Depth (feet)
Parameter	НА	-2
	1-1.5	4.5-5
DRO	350	990
GRO	1,700	850
Benzene	1.3	<0.38
Ethylbenzene	<0.11	<0.22
Toluene	1.8	<0.22
Xylenes	6.3	<0.68
мтве	<0.090	<0.18
1,2,4-TMB	22	20
1,3,5-TMB	5.7	7.9
Ethylene dibromide (EDB)	<0.28	<0.14
Lead	11.4	NA
Detected Polycyclic Aromatic Hydroc	arbons	
Acenaphthene	<0.048	<0.048
Acenaphthylene	<0.051	<0.051
Anthracene	<0.023	<0.023
Benzo(a)anthracene	<0.0020	<0.0020
Benzo(a)pyrene	<0.0015	<0.0015
Benzo(b)fluoranthene	<0.0015	<0.0015
Benzo(k)fluoranthene	<0.0015	<0.0015
Fluoranthene	<0.0049	<0.0049
Fluorene	<0.0086	0.76
Indeno(1,2,3-cd)pyrene	<0.0094	<0.0094
Naphthalene	<0.031	3.2
l-Methyl Naphthalene	<0.047	6.9
2-Methyl Naphthalene	0.076	11
Phenanthrene	<0.0035	0.72
Pyrene	0.018	<0.0062

### NOTES:

Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis.

Results in bold exceed applicable NR 720 RCL.

Only detected polycyclic aromatic hydrocarbons (PAHs) included in table.

NA = Not analyzed.

TABLE 3

# PRE-EXCAVATION GEOPROBE SOIL SAMPLING RESULTS (mg/kg) FORMER TANK 65 BASIN SEPTEMBER 18, 1998

Boring No. & Sample Depth (ft)	Benzene	Ethylbenzene	MTBE	Toluene	1,3,5-TMB	1,2,4-TMB	Total Xylenes
SB-1 (0-2')	24	17	5	46	11	35	77
SB-1 (2-4')	28	24	2.1	83	16	48	114
SB-1 (4-6')	9	3.5	0.27	15	2	6.4	16.9
SB-1 (6-8')	9.7	8.1	0.66	27	4.9	15	38
SB-1 (20-22')	0.49	0.75	<0.025	2.7	0.06	.2	2.82
SB-2 (0-2')	23	21	1.7	69	14	44	102
SB-2 (2-4')	12	4.7	.15	24	2.7	8.7	23.8
SB-2 (4-6')	13	2.8	<0.05	20	1,3	4.2	14.3
SB-2 (6-8')	8.9	2.4	<0.05	16	1	3.5	11.9
SB-2 (8-10')	8.4	3.2	0.083	17	1.4	4.7	15.5
SB-3 (0-2')	25	19	1.9	69	13	39	95
SB-3 (2-4')	21	19	1.2	68	13	41	94
SB-3 (4-6')	15	4.7	0.18	27	2.4	7.5	22.8
SB-3 (6-8')	11	4	0.19	23	2	6.4	19.8
SB-3 (8-10')	8.6	3.7	0.17	21	1.7	5.5	18.3
NR 720 RCL	0.0055	2.9	NS	1.5	NS	NS	4.1

Table 3 Continued . . .

Boring No. & Sample Depth (ft)	Benzene	Ethylbenzene	МТВЕ	Toluene	1,3,5-TMB	1,2,4-TMB	Total Xylenes
SB-4 (0-2')	22	31	2.2	94	23	68	154
SB-4 (2-4')	10	8.2	0.71	29	5.6	17	42
SB-4 (4-6')	14	22	1.9	61	17	52	114
SB-4 (6-8')	7.9	7.1	0.33	26	5	15	36
SB-4 (8-10')	6.1	2	0.087	12	.97	3.2	10.5
SB-5 (0-2')	21	33	2.1	60	28	92	178
SB-5 (2-4')	6.1	4	1.2	12	2.9	9.3	20.7
SB-5 (4-6')	6.3	1.8	0.43	9	1.1	3.8	10.4
SB-5 (6-8')	3.4	1.3	0.28	6.3	0.88	3	7.8
SB- 5 (8-10')	2.5	1.2	0.21	5.7	0.75	2.6	7.1
Field Blank	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Method Blank	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
NR 720 RCL	0.0055	2.9	NS	1.5	NS	NS	4.1

### NOTES:

Samples collected by Twin Ports Testing, Inc. and analyzed by EnChem Inc.

Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis.

Results in bold exceed applicable generic NR 720 RCLs.

NR 720 RCL = Wisconsin Administrative Code NR 720 residual contaminant level.

NS = No standard.

#### TABLE 4

### POST-EXCAVATION SOIL SAMPLING RESULTS FORMER TANK 65 BASIN (mg/kg) OCTOBER 20, 1998

Parameter	Sample I.D. Parameter										NR 746 Direct Contact Standards in Upper 4
	B-1	B-2	B-3	B-4	B-5		Soil Screening Levels	Feet of Soil			
Lead	11.4	13.1	13.7	11.9	10.5	13.6	11.4	9.94	500	NS	NS
GRO	490	980	1,600	3.8	490	210	1,300	1,800	250	NS	NS
Benzene	3.5	6.5	21	<0.025	3,9	0.64	12	20	0.0055	8.5	1.10
Ethylbenzene	7.1	22	48	<0.025	2.4	2.3	27	30	2.9	4.6	4.6
Toluene	8.3	56	140	0.064	0.6	3.4	63	59	1.5	38	38
Total Xylenes	39	143	253	0.1	13.3	11.4	126	178	4.1	42	42
Trimethylbenzenes	34.8	94	156	0.196	25.9	16.7	90	138	NS	94	94
MTBE	<1.2	<1.2	<2.5	<0.025	< 0.25	<0.25	7.1	7.2	NS	NS	NS

Sample I.D. Parameter										NR 746 Residual Petroleum Product in	NR 746 Direct Contact Standards in Upper 4
	B-9 B-10 B-11 B-12 B-13 B-14 B-15 B-16									Soil Screening Levels	Feet of Soil
Lead	8.18	13.6	15.3	81	9.81	11.4	12.6	9.45	500	NS	NS
GRO	960	1,500	3,700	350	6.7	77	2,700	190	250	NS	NS NS
Benzene	6.6	13	64	1.8	<0.025	0.43	35	3.7	0.0055	8.5	1.10
Ethylbenzene	16	29	85	8.7	<0.025	0.99	68	1.7	2.9	4.6	4.6
Toluene	9.9	62	260	18	< 0.025	1.1	160	0,46	1.5	38	38
Total Xylenes	77	123	400	47	0.081	3.3	293	4.1	4.1	42	42
Trimethylbenzenes	67	86	250	31.2	0.34	5.6	181	13.2	NS	94	94
MTBE	4.9	<2.5	11	<0.25	<0.025	<0.25	7.6	0.77	NS	NS	NS

### NOTES:

All samples collected at a depth of 0.5 feet below grade.

Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis.

Results in bold exceed applicable generic NR 720 RCLs.

NR 720 RCL

= Wisconsin Administrative Code NR 720 residual contaminant level.

NS

= No standard,

M:\CLERICAL\PROJECTS\34200\34265.003\tables\DFK\[3T34265-003_009.xls]Table 4

TABLE 5

### FORMER TANK 66 BASIN SOIL SAMPLING RESULTS (mg/kg) MAY 1999

			S	ample I.D. an	d Depth			NR 746 Residual	NR 746 Direct Contact
Parameter	GP9	9-1	GP:	99-2	GP99-3		NR 720 RCL	Petroleum Product in	Standards in Upper 4
	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.		Soil Screening Levels	Feet of Soil
Lead	1.4	6.77	1.14	9.95	49.3	12.9	500	NS	NS
GRO	954	752	51.3	698	5,100	3,280	250	NS	
Benzene	22.8	2.6	<0.030	3.71	<13.3	5.94	0.0055	8.5	1.10
Ethylbenzene	113	2.76	0.041	14.2	<26.6	80.7	2.9	4.6	
Toluene	73.4	<0.53	0.057	35.2	<26.6	67	1.5	38	38
Total Xylenes	757	5.49	0.239	92.3	53.4	572	4.1	42	42
Trimethylbenzenes	746	23.2	1.097	87.9	455	375	NS	94	94
MTBE	<1.14	<0.53	<0.030	<0.534	<26.6	<3.03	NS	NS	NS

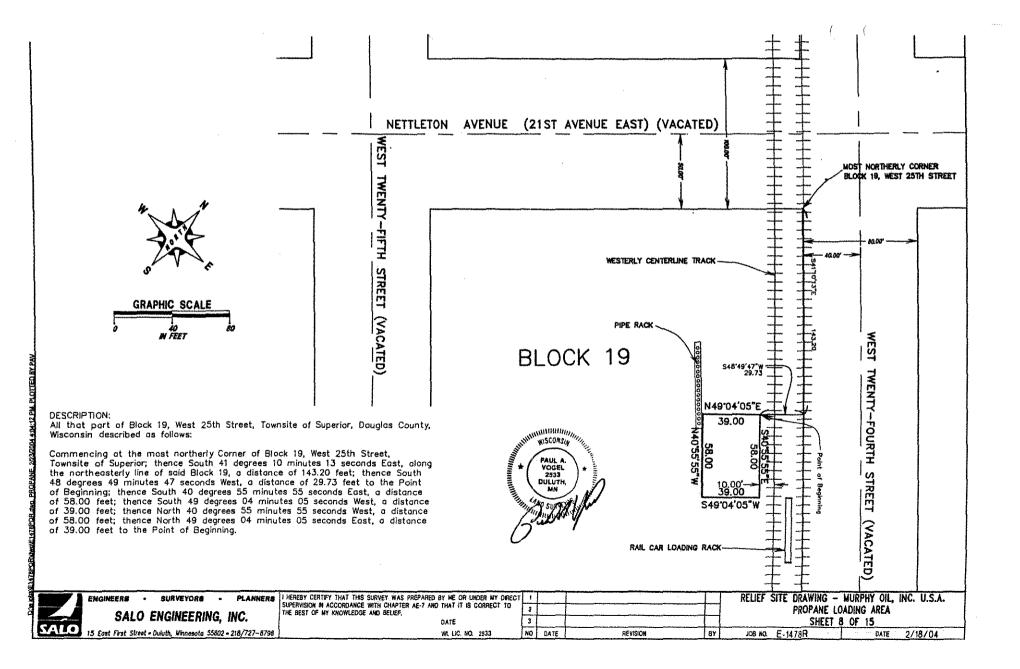
		Sample LD.	and Depth			NR 746 Residual	NR 746 Direct Contact
Parameter	GP9	9-4	GP9	9-5	NR 720 RCL	Petroleum Product in	Standards in Upper 4
	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.		Soil Screening Levels	Feet of Soll
Lead	5.98	4.95	2.23	22.3	500	NS	NS
GRO	223	258	2,230	19.4	250	NS	NS
Benzene	0.298	0.177	<0.218	2.84	0.0055	8.5	1.10
Ethylbenzene	2.98	2.28	< 0.435	0.944	2.9	4.6	4.6
Toluene	0.617	0.532	<0.435	1.95	1.5	38	38
Total Xylenes	6.426	2.59	0.789	5.35	4.1	42	42
Trimethylbenzenes	7.79	5.44	57.3	1.63	NS	94	94
MTBE	<0.033	< 0.031	<0.435	< 0.033	NS	NS	NS

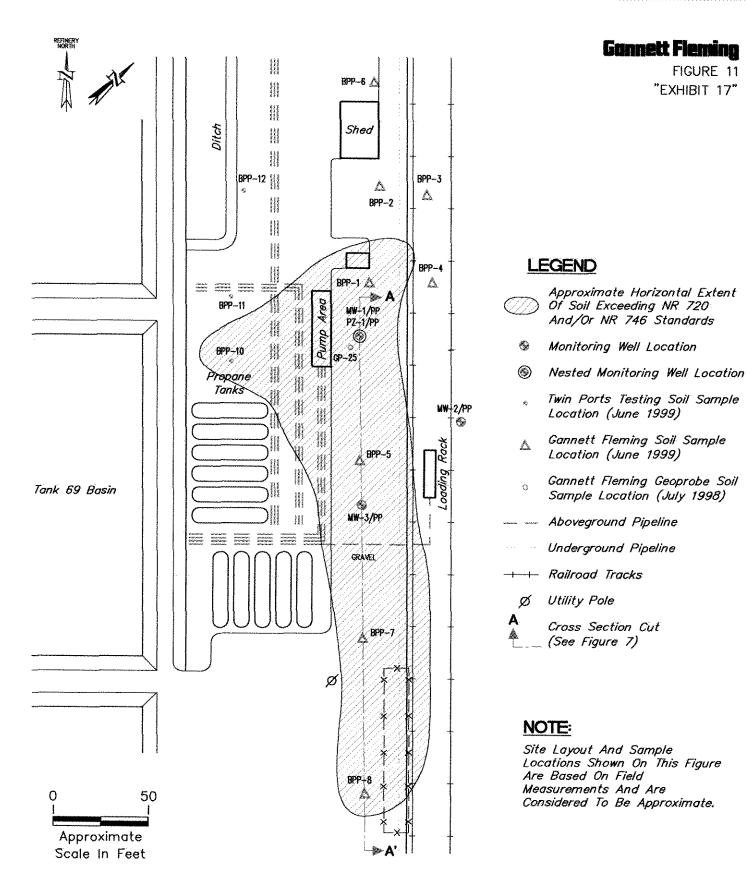
### NOTES:

Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis. Soil samples collected by Twin Ports Testing using a Geoprobe. Concentrations in bold exceed applicable NR 720 RCLs.

NS = No standard.

M:\CLERICAL\PROJECTS\34200\34265.003\\ables\DFK\[3T34265-003_010.x\\s]Table 5





# EXTENT OF SOIL IMPACTS AT PROPANE/BUTANE LOADING AREA

MURPHY OIL USA, INC SUPERIOR, WISCONSIN

TABLE 6

ANALYTICAL RESULTS FOR SOIL SAMPLES FROM PROPANE LOADING AREA (mg/kg)

				Sample L.D	. and Depth		NR 720	NR 746 Direct-Contact	NR 746 Indicators of
Parameter	GP-	-25	BP	P-1	BP	P-2	RCL	Standard in Upper 4	Residual Petroleum
	1-1.5 ft.	4.5-5 ft,	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.		Feet of Soil	Product in Soil Pores
FID (ppm)	NM	NM	1	>1000	0.8	>1000	NS	NS	NS
Lead	15.4	NA	9.74	4.08	<0.56	5,58	500	NS	NS
DRO	1,100	120	NA	NA	NA	NA	250	NS	NS
GRO	540	880	<5.2	280	<5.3	79	250	NS	NS
Benzene	5.7	13	< 0.026	4.816	<0.026	<0.033	0.0055	1,1	8,5
Ethylbenzene	<0.55	19	0.036	5.479	<0.026	0.075	2.9	4.6	
Toluene	<0.55	66	0,051	16.099	<0.026	<0.033	1.5	38	38
Total Xylenes	21	145	0.187	35.723	< 0.052	0.14	4.1	42	42
Trimethylbenzenes	49	98	0.073	22.149	< 0.052	2.496	NS	94	94
MTBE	<0.45	<0.45	< 0.026	< 0.536	< 0.026	< 0.033	NS	NS	NS
Ethylene Dibromide	<0.35	<0.35	NA	NA	NA	NA	NS	NS	NS
Fluoranthene	3.9	0.068	NA	NA	NA	NA	NS	NS	NS
Indeno(1,2,3-cd)pyrene	0.17	<0.0094	NA	NA	NA	NA	NS	NS	NS
Naphthalene	19	1.8	NA	NA	NA	NA	NS	2.7	2.7
1-Methyl Naphthalene	13	1	NA	NA.	NA	NA	NS	NS	NS
2-Methyl Naphthalene	27	2.4	NA	NA	NA	NA	NS	NS	NS
Phenanthrene	0.77	0.054	NA	NA	NA	NA	NS	NS	NS
Pyrene	5.1	0.094	NA	NA	NA	NA	NS	NS	NS

TABLE 6

ANALYTICAL RESULTS FOR SOIL SAMPLES FROM PROPANE LOADING AREA (mg/kg)

				Sample LD	. and Depth		NR 720	NR 746 Direct-Contact	NR 746 Indicators of
Parameter	BP	P-3	BP	P-4	BP	P-5	RCL	Standard in Upper 4	Residual Petroleum
	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.		Feet of Soil	Product in Soil Pores
FID (ppm)	0.4	NM	1.4	>1000	6,4	>1000	NS	NS	NS
Lead	9.57	4.8	5.5	5,85	39.9	3.78	500	NS	NS
DRO	NA	NA	NA	NA	NA	NA	250	NS	NS
GRO	<5.4	845	<5.5	14.1	12.9	743	250	NS	NS
Benzene	< 0.027	<0.270	< 0.027	<0.031	<0.028	0.855	0,0055	1.1	8.5
Ethylbenzene	< 0.027	0.888	< 0.027	0,327	< 0.028	5.533	2.9	4.6	4.6
Toluene	< 0.027	<0.540	<0.027	0.033	<0.028	12.732	1.5	38	38
Total Xylenes	< 0.054	0.861	< 0.054	0.147	< 0.056	24,176	4.1	42	42
Trimethylbenzenes	< 0.054	34.397	< 0.054	0.207	<0.056	32.385	NS	94	94
MTBE	<0.027	<0.540	<0.027	< 0.031	< 0.028	<0.269	NS	NS	NS
Ethylene Dibromide	NA NA	NA	NA	NA	NA	NA	NS	NS	ŊS
Fluoranthene	NA	NA	NA	NA	NA	NA	NS	NS	NS
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NS	NS	NS
Naphthalene	NA	NA	NA	NA	NA	NA	NS	2.7	2.7
1-Methyl Naphthalene	NA	NA	NA	NA	NA	NA	NS	NS	NS
2-Methyl Naphthalene	NA	NA	NA	NA	NA	NA	NS	NS	NS
Phenanthrene	NA	NA	NA	NA	NA	NA	NS	NS	NS
Pyrene	NA	NA	NA	NA	NA	NA	NS	NS	NS

TABLE 6

ANALYTICAL RESULTS FOR SOIL SAMPLES FROM PROPANE LOADING AREA (mg/kg)

				Sample LD	. and Depth		NR 720	NR 746 Direct-Contact	NR 746 Indicators of
Parameter	BP	P-6	BP	P-7	BP	P-8	RCL	Standard in Upper 4	Residual Petroleum
	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.		Feet of Soil	Product in Soil Pores
FID (ppm)	0.4	1.2	400	>1000	600	4	NS	NS	NS
Lead	13.6	4.77	20.5	5.91	8.63	5.18	500	NS	NS
DRO	NA	NA	NA	NA	NA	NA	250	NS	NS
GRO	<7.4	<6.8	25,6	668	216	<6.3	250	NS	NS
Benzene	< 0.037	< 0.034	0.076	2.048	0.954	< 0.032	0.0055	1.1	8.5
Ethylbenzene	< 0.037	< 0.034	0.133	4.871	1.477	<0.032	2.9	4.6	
Toluene	< 0.037	< 0.034	<0.028	14.578	0.589	<0.032	1.5	38	38
Total Xylenes	< 0.074	<0.068	0.345	22.58	18.118	< 0.064	4.1	42	42
Trimethylbenzenes	< 0.074	<0.068	0.564	23.642	24,355	<0.064	NS	94	94
MTBE	< 0.037	< 0.034	< 0.028	< 0.545	< 0.570	<0.032	NS	NS	NS
Ethylene Dibromide	NA	NA	NA	NA	NA	NA	NS	NS	NS
Fluoranthene	NA	NA	NA	NA	NA	NA	NS	NS	NS
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NS	NS NS	NS
Naphthalene	NA	NA	NA	NA	NA	NA	NS	2.7	2.7
1-Methyl Naphthalene	NA	NA	NA	NA	NA	NA	NS	NS	NS
2-Methyl Naphthalene	NA	NA	NA	NA	NA	NA	NS	NS	NS
Phenanthrene	NA	NA	NA	NA	NA	NA	NS	NS	NS
Pyrene	NA	NA	NA	NA	NA	NA	NS	NS	NS

TABLE 6

ANALYTICAL RESULTS FOR SOIL SAMPLES FROM PROPANE LOADING AREA (mg/kg)

							NR 720	NR 746 Direct-Contact	NR 746 Indicators of
Parameter	BPP	-10	BPI	<b>-</b> 11	BPI	P-12	RCL	Standard in Upper 4	Residual Petroleum
	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.	1-1.5 ft.	4.5-5 ft.		Feet of Soil	<b>Product in Soil Pores</b>
FID (ppm)	264	4,500	62	3,400	105	1,511	NS	NS	NS
Lead	695	5,46	319	4.71	5,59	21.9	500	NS	NS
DRO	NA	NA	NA	NA	NA	NA	250	NS	NS
GRO	417	702	22.7	45.4	35.9	266	250	NS	NS
Benzene	< 0.140	0.824	<0.035	<0.272	<0.131	<0.138	0.0055	1.1	8.5
Ethylbenzene	<0.280	4.85	<0.035	0.867	<0.261	0.627	2.9	4.6	4.6
Toluene	0.303	2.12	<0.035	<0.544	<0.261	<0.277	1.5	38	38
Total Xylenes	0.884	22.8	0.064	1.15	<0.522	0.859	4.1	42	42
Trimethylbenzenes	<0.560	47.2	< 0.070	<0.070	< 0.522	13.6	NS	94	94
MTBE	<0.280	<1.37	0.04*	< 0.544	<0.261	<0.277	NS	NS	NS
Ethylene Dibromide	NA	NA	NA	NA	NA	NA	NS	NS	NS
Fluoranthene	NA NA	NA	NA	NA	NA	NA	NS	NS	NS
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NS	NS	NS
Naphthalene	NA	NA	NA	NA	NA	NA	NS	2.7	2.7
1-Methyl Naphthalene	NA	NA	NA	NA	NA	NA	NS	NS	NS
2-Methyl Naphthalene	NA	NA	NA	NA	NA	NA	NS	NS	NS
Phenanthrene	NA	NA	NA	NA	NA	NA	NS	NS	NS
Pyrene	NA	NA	NA	NA	NA	NA	NS	NS	NS

### TABLE 6

### ANALYTICAL RESULTS FOR SOIL SAMPLES FROM PROPANE LOADING AREA (mg/kg)

### NOTES:

Sample GP-25 collected by Gannett Fleming on July 22, 1998.

Samples BPP-1 through BPP-8 collected by Gannett Fleming on June 2 and 3, 1999.

Samples BPP-10 through BPP-12 collected by Twin Ports Testing on June 14, 1999.

Results reported in units of milligrams per kilogram (mg/kg) on a dry-weight basis.

Results in bold exceed applicable NR 720 RCL.

Result shaded exceed applicable NR 746 direct contact standard.

FID

= Flame ionization detector.

ppm

= Parts per million.

NA NS Not analyzed.No standard.

*

= Questionable result due to possible manufacturer derived contaminant in methanol.

M:\CLERICAL\PROJECTS\34200\34265.003\tables\DFK\[3T34265.003_005.xis]Table 6

TABLE 7

### ANALYTICAL RESULTS FOR SOIL SAMPLES FROM TANKS 32/33 BASIN (mg/kg)

	Sample I.D. and Depth															NR	Direct Contact		
Parameter	B32-1		B32-2		B32-3		B32-4		R33-1		B33-2		B33-3		B33-4		720	Standard	Product Indicator
	1-2 ft.	4-5 ft.	1-2 ft.	4-5 ft.	1-2 ft.	4-5 ft.	1-2 ft.	4-5 ft.	1-2 ft.	4-5 ft.	1-2 ft.	4-5 ft.	1-2 ft.	4-5 ft.	1-2 ft.	4-5 ft.	RCL	(upper 4 ft)	Concentr
DRO	45,000	400	390	35	1,200	880	380	550	1,800	630	160	900	640	360	<1.4	74	250		্রয়
Benzene	13	1.1	0.91*	1.2	3.4	9.7	6.6	NA	<0.50	<0.50	< 0.50	<0.50	<1.2	<2.5	<0.025	0.71*	0.0055	1.1	8.5
Ethylbenzene	46	2.8	7.4	3.4	6	30	31	NA	6.4	1.6	< 0.50	6.6	6.6	6.2	<0.025	1.6	2.9	4.6	<u> </u>
Toluene	6.8	0.95	1.3	0.52	0.94	<1.2	3.2*	NA	<0.50	<0.50	<0.50	1.9	<1.2	<2.5	<0.025	<0.50	1.5	38	38
Total Xylenes	121	6.1	15.7	7.9	7.8	47	45	NA	7.7	<1.0	<1.0	<1.0	11.1	14.5	<0.050	4.9	4.1	42	42
Trimethylbenzenes	146	3.1	11.1	8.2	21	46	45	NA	7.1	3.9	2.3	8,9	16.7	20.5	<0.050	3.4	NS	83	83
MTBE	<2.5	< 0.62		0.46*	0.69	2.4	<2.5	NA	<0.50	<0.50	<0.50	⊲0.50	<1.2	<2.5	<0.025	<0.50	NS	NS	NS
Detected Polycyclic Aromatic Hydrocarbons																			
Fluoranthene	<0.61	< 0.0049	0.32	<0.0049	5.4	3.3	4	1.5	3.9	0.75	0.23	<0.025	4	0.42	< 0.0049	<0.0049	NS	NS	NS
Naphthalene	<3.9	0.066*	<0.062	< 0.031	<1.2	0.81	<0.31	< 0.16	4.1	<0.16	<0.031	<0.16	8.5	0.59	<0.031	<0.031	NS	2.7	2.7
Phenanthrene	7.9	0.32	0.15	<0.0035	<0.14	<0.018	<0.035	< 0.018	1.6	0.11	0.012	0.07	2.1	0.21	< 0.0035	<0.0035	NS	NS	
Pyrene	20	1.1	0.64	0.014*	11	<0.031	<0.062	<0.031	5.9	1.1	0.5	1.4	3.3	0.35	< 0.0062	0.013*	NS	NS	NS
1-Methyl naphthalene	42		1.1	<0.047	<1.9	8.8	2.2	1.8	17	1.7	<0.047	2	22	2.5	<0.047	< 0.047	NS	NS	
2-Methyl naphthalene	78	1.6	1.2	<0.031	<1.2	15	5.5	4.1	19	2.4	<0.031	3	33	3.3	<0.031	<0.031	NS	NS	NS

### NOTES:

Samples collected on December 16 and 17, 1998.
Results reported in units of milligrams per kilogram (mg/kg) on a dry weight basis.
Results in bold exceed applicable NR 720 RCLs.

NR 720 RCL

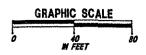
= Wisconsin Administrative Code NR 720 residual contaminant level. = No standard

NS

= Reported concentration below the quantitation limit.

M:\CLERICAL\PROJECTS\34200\34265.003\tables\JJK\[3T34265_027.xis]Table 7

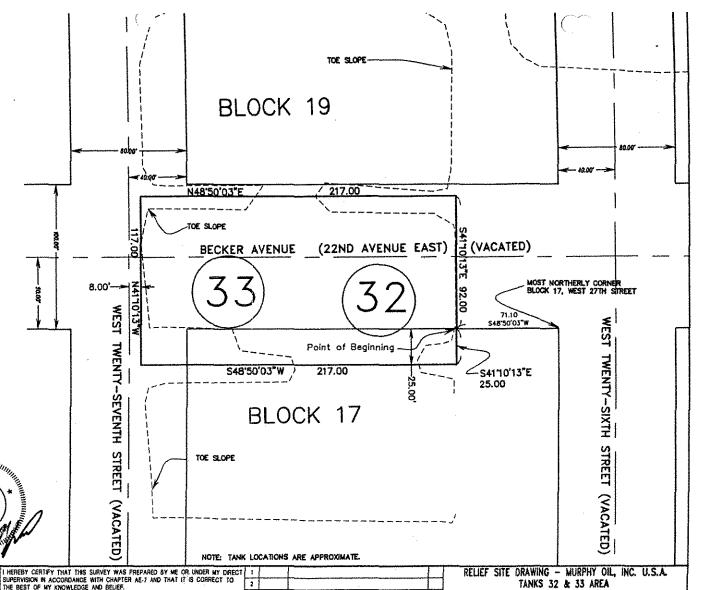




#### DESCRIPTION:

Those parts of Blocks 17 and 19, West 27th Street together with those parts of vacated Becker Avenue and West 27th Street, Townsite of Superior, Douglas County, Wisconsin described as follows:

Commencing at the most northerly Corner of Block 17, West 27th Street, Townsite of Superior; thence South 48 degrees 50 minutes 03 seconds West along the northwesterly line of said Block 17, a distance of 71.10 feet to the Point of Beginning; thence South 41 degrees 10 minutes 13 seconds East, a distance of 25.00 feet; thence South 48 degrees 50 minutes 03 seconds West along a line 25.00 feet distant, measured at right angles to and parallel with the northwesterly line of said Block 17, a distance of 217.00 feet, thence North 41 degrees 10 minutes 13 seconds West along a line 8.00 feet distant, measured at right angles to and parallel with the centerline of vacated West 27th Street, a distance of 117.00 feet; thence North 48 degrees 50 minutes 03 seconds East, a distance of 217.00 feet; thence South 41 degrees 10 minutes 13 seconds East, a distance of 92.00 feet to the Point of Beginning.



REVISION

WI. LIC. NO. 2533

NO DATE

SALO

ENGINEERS - SURVEYORS

SALO ENGINEERING. INC.

15 East First Street - Duluth, Minnesota 55802 - 218/727-8796

DATE 2/18/04

SHEET 13 OF 15

JOB NO. E-1478Q

