REGION 5

CHICAGO, IL 60604

April 17, 2024

MEMORANDUM

SUBJECT: Review of Quality Assurance Project Plan Addendum for Spickler Landfill Site

FROM: Sarah Banister, Chemist, Laboratory Services and Applied Sciences Division

TO: Nilia Green, Remedial Project Manager,
Superfund and Emergency Management Division

The purpose of this memo is to document the review of the subject quality assurance project plan (QAPP) addendum, dated April 2024 r1.0 for Spickler Landfill Site and prepared by WSP USA INC (formerly Earthcon Consultants, INC). The Quality Assurance Project Plan Addendum *is approved.* No official signatures are needed due to the nature of edits. This memo serves as documentation for implementation of the changes.

>End Comments<

Please feel free to contact me at (312) 886-7745 with any questions or further needs.

cc: Lou Blume- LSASD/SQAB Branch Manager

QUALITY ASSURANCE PROJECT PLAN

ADDENDUM

SPICKLER LANDFILL SITE

MARATHON COUNTY, WISCONSIN

PREPARED FOR:

Settling Defendants
220 Occidental Avenue South
Seattle, Washington 98104

PREPARED BY:

WSP USA INC.
(FORMERLY EARTHCON CONSULTANTS, INC.)
1880 WEST OAK PARKWAY
BLDG 100, SUITE 106
MARIETTA, GA 30062

WSP USA INC PROJECT NO. 31403999.012

October 7, 2021

REVISION NUMBER: 1.0

April 17, 2024

Worksheet #14/16 Project Tasks & Schedule
April 2024 Proposed Monitoring Schedule
Spickler Landfill Site, Marathon County Wisconsin

Monitoring Wells

Monitoring Point ID	Sample Designation[1]	WDNR Unique Well ID	Water Level *	Frequency			Analytical Scope				
				Semi-Annual (April/Sept.)	Annual (April)	Every 5 Years (April 2024)	Site-Specific VOCs[2]	Metals (T/D)[3]	L.L. Vinyl Chloride	PFAS [4]	1,4-Dioxane
S1	SLLT-MW-S1-XX01	1	X	X			X	D		X	X
S2	SLLT-MW-S2-XX01	5	X	X			X	D		X	X
S3	SLLT-MW-S3-XX01	9	X		X		X	D		X	X
S1AR	SLLT-MW-S1AR-XX01	3	X	X			X	D		X	X
S2AR	SLLT-MW-S2AR-XX01	7	X		X		X	D		X	X
S3AR	SLLT-MW-S3AR-XX01	11	X	X			X	D		X	X
MW6S	SLLT-MW-6S-XX01	13	X	X			X	D		X	X
MW6D	SLLT-MW-6D-XX01	15	X		X		X	D		X	X
MW7S	SLLT-MW-7S-XX01	17	X		X		X	D		X	X
MW7D	SLLT-MW-7D-XX01	19	X		X		X	D		X	X
MW8S	SLLT-MW-8S-XX01	21	X							X	X
MW8D	SLLT-MW-8D-XX01	23	X							X	X
MW9S	SLLT-MW-9S-XX01	25	X							X	X
MW10S	SLLT-MW-10S-XX01	27	X	X			X	D		X	X
MW10D	SLLT-MW-10D-XX01	29	X							X	X
MW11S	SLLT-MW-11S-XX01	31	X	X			X	D		X	X
MW12S	SLLT-MW-12S-XX01	33	X							X	X

Worksheet #14/16 Project Tasks & Schedule
April 2024 Proposed Monitoring Schedule
Spickler Landfill Site, Marathon County Wisconsin

Monitoring Wells (continued)

Monitoring Point ID	Sample Designation[1]	WDNR Unique Well ID	Water Level *	Frequency			Analytical Scope				
				Semi-Annual (April/Sept.)	Annual (April)	Every 5 Years (April 2024)	Site-Specific VOCs[2]	Metals (T/D)[3]	L.L. Vinyl Chloride	PFAS [4]	1,4-Dioxane
MW12D	SLLT-MW-12D-XX01	35	X							X	X
MW13S	SLLT-MW-13S-XX01	37	X	X			X	D		X	X
MW13D	SLLT-MW-13D-XX01	39	X			X	X	D		X	X
MW14S	SLLT-MW-14S-XX01	41	X		X		X	D		X	X
MW14D	SLLT-MW-14D-XX01	43	X							X	X
MW15S	SLLT-MW-15S-XX01	45	X			X	X	D		X	X
MW15D	SLLT-MW-15D-XX01	47	X			X	X	D		X	X
MW17SR	SLLT-MW-17SR-XX01	51	X							X	X
MW19S	SLLT-MW-19S-XX01	53	X			X	X	D		X	X
MW19D	SLLT-MW-19D-XX01	55	X			X	X	D		X	X
MW20S	SLLT-MW-20S-XX01	57	X		X		X	D		X	X
MW21S	SLLT-MW-21S-XX01	61	X	X			X	D		X	X
MW21D	SLLT-MW-21D-XX01	63	X	X			X	D		X	X
MW-DUP01 (field dup.)	SLLT-MW-__-XX99	**		X	X		X	D		X	X
MW-DUP02 (field dup.)	SLLT-MW-__-XX99	**		X			X	D		X	X
MW-TB01 (trip blank)	SLLT-MWTB01-XX01	999		X			X				
MW-TB02 (trip blank)	SLLT-MWTB02-XX01	999		X			X				

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April 2024 Proposed Monitoring Schedule
Spickler Landfill Site, Marathon County Wisconsin

Residential Wells

Monitoring Point ID	Sample Designation[1]	WDNR Unique Well ID	Frequency			Analytical Scope				
			Semi-Annual (April/Sept.)	Annual (April)	Every 5 Years (April 2024)	Site-Specific VOCs[2]	Metals (T/D)[3]	L.L. Vinyl Chloride	PFAS [4]	1,4-Dioxane
RW-2543	SLLT-RW2543-XX01	800	X			X	T	X	X	X
RW-2550	SLLT-RW2550-XX01	804	X			X	T/D	X	X	X
RW-2551	SLLT-RW2551-XX01	802	X			X	T	X	X	X
RW-DUP01 (field dup.)	SLLT-RW____-XX99	**	X			X	T/D	X	X	X
RW-TB01 (trip blank)	SLLT-RWTB01-XX01	**	X			X		X		

Leachate

Monitoring Point ID	Sample Designation[1]	WDNR Unique Well ID	Frequency	Analytical Scope
			Semi-Annual (April/September)	Leachate-Specific List of Analytes[5]
Leachate Tank	SLLT-LCTank-XX01	616	X	X
LDUP01 (field dup)	SLLT-LCDup01-XX99	**	X	X

Notes:
1) XX - Numeric designation increases by 1 with every sampling event.
2) Site-specific VOCs include: 1,2-dichloroethane, methylene chloride, tetrachloroethene, vinyl chloride, benzene, trichloroethene, cis-1,2-dichloroethene, 1,1-dichloroethane, 1,4-dichlorobenzene and chloroethane.
3) D-Dissolved metals will be field filtered, T-total metals will not be field filtered. Metals include arsenic, barium, iron, manganese, and lead.
4) Perfluoroalkyl Substances (PFAS) to include the 18 PFAS constituents listed in Method 537.1.
5) Includes VOCs, ammonia-nitrogen, aniline, alpha terpineol, p-cresol, phenol, pyridine, benzoic acid, naphthalene, total phosphorous, Biological Oxygen Demand (BOD), oil and grease, nitrate/nitrite, total suspended solids, (TSS), and total metals (arsenic, barium, chromium, manganese, iron, lead, mercury, and zinc).
*Water levels will be measured in groundwater monitoring wells semi-annually.
**The field duplicate WDNR Unique Well ID will correspond to the well from which the duplicate sample is collected from.

TABLE 4
SPICKLER LANDFILL SITE

Monitoring Well and Residential Groundwater Samples
PFAS Methods and Target Detection Limits

Per- and Polyfluorinated Alkyl Substances (PFAS)	Acronym	CASRN	Target Detection Limit (ng/L)	RL (ng/L)	MDL (ng/L)
Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6	10*	2	0.843
N-ethyl perfluorooctanesulfonamidoacetic acid	NEtFOSAA	2991-50-6	20	2	0.679
N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9	20	2	0.660
Perfluorobutanesulfonic acid	PFBS	375-73-5	600**	2	0.628
Perfluorodecanoic acid	PFDA	335-76-2	20	2	0.833
Perfluorododecanoic acid	PFDoA	307-55-1	100**	2	0.922
Perfluoroheptanoic acid	PFHpA	375-85-9	20	2	0.989
Perfluorohexanesulfonic acid	PFHxS	355-46-4	10*	2	0.670
Perfluorohexanoic acid	PFHxA	307-24-4	990**	2	0.840
Perfluorononanoic acid	PFNA	375-95-1	10*	2	0.977
Perfluorooctanesulfonic acid	PFOS	1763-23-1	4*	2	0.631
Perfluorooctanoic acid	PFOA	335-67-1	4*	2	0.864
Perfluorotetradecanoic acid	PFTeDA	376-06-7	2000**	2	0.851
Perfluorotridecanoic acid	PFTrDA	72629-94-8	20	2	0.783
Perfluoroundecanoic acid	PFUnA	2058-94-8	20	2	0.819
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9	20	2	0.652
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid	9Cl-PF3ONS	756426-58-1	20	2	0.673
4,8-dioxa-3H-perfluorononanoic acid	ADONA	919005-14-4	20	2	0.680

PFAS analysis will be conducted using analytical Method 537.1
CASRN – Chemical Abstract Services Registry Number
RL- Reporting Limit
MDL- Method Detection Limit
ng/L- nanogram per liter
Constituents detected between the RL and MDL will be reported as estimated “J”.
*EPA Final Maximum Contaminant Level (MCL), April 10, 2024
**EPA Regional Screening Level (RSL) for Tapwater (EPA Summary Table TR=1E-06, HQ=0.1; pages 7 and 8, November 2023). Note that the table values were converted from mg/L to ng/L.

Prepared By: AGL 4/10/2024
Checked By: CDN 4/11/2024