



TNI PT for Accreditation
Fields of Proficiency Testing with PTRLs
Solid and Chemical Materials
Effective: October 1 , 2021

Blue = New Analyte

Magenta = Changes

Matrix	EPA Analyte Code	TNI Analyte Code	CAS Number	Analyte ^{1,2}	Conc Range	Acceptance Criteria ^{3,4,5,6}				TNI PTRL ⁷
						a	b	c	d	
Trace Metals										
					mg/kg					mg/kg
SOLIDS	1000	7429-90-5	Aluminum	2500 to 25000	Study Mean	0.1307	293.1966	250		
SOLIDS	1005	7440-36-0	Antimony	80 to 300	Study Mean	0.4385	8.1700	8.0		
SOLIDS	1010	7440-38-2	Arsenic	40 to 400	Study Mean ± 30%				4.0	
SOLIDS	1015	7440-39-3	Barium	100 to 1000	Study Mean ± 25%				10	
SOLIDS	1020	7440-41-7	Beryllium	40 to 400	Study Mean ± 25%				4.0	
SOLIDS	1025	7440-42-8	Boron	80 to 800	Study Mean ± 40%				48	
SOLIDS	1030	7440-43-9	Cadmium	40 to 400	Study Mean ± 25%				4.0	
SOLIDS	1035	7440-70-2	Calcium	1500 to 25000	Study Mean	0.0730	87.3802	150		
SOLIDS	1040	7440-47-3	Chromium	40 to 400	Study Mean ± 30%				4.0	
SOLIDS	1045	18540-29-9	Chromium (VI)	40 to 300	Study Mean	0.1547	8.5460	4.0		
SOLIDS	1050	7440-48-4	Cobalt	40 to 400	Study Mean ± 25%				4.0	
SOLIDS	1055	7440-50-8	Copper	40 to 400	Study Mean ± 25%				4.0	
SOLIDS	1070	7439-89-6	Iron	5000 to 50000	Study Mean	0.1102	1500.6038	500		
SOLIDS	1075	7439-92-1	Lead	40 to 400	Study Mean	0.0791	1.9272	4.0		
SOLIDS	1085	7439-95-4	Magnesium	1200 to 25000	Study Mean	0.0685	134.2111	120		
SOLIDS	1090	7439-96-5	Manganese	100 to 2000	Study Mean	0.0639	6.3268	10		
SOLIDS	1095	7439-97-6	Mercury	1 to 35	Study Mean ± 40%				0.10	
SOLIDS	1100	7439-98-7	Molybdenum	30 to 300	Study Mean	0.0910	0.8106	3.0		
SOLIDS	1105	7440-02-0	Nickel	40 to 500	Study Mean ± 30%				4.0	
SOLIDS	1125	7440-09-7	Potassium	1400 to 25000	Study Mean	0.0878	98.8140	140		
SOLIDS	1140	7782-49-2	Selenium	40 to 400	Study Mean	0.0935	2.2902	4.0		
SOLIDS	1150	7440-22-4	Silver	20 to 100	Study Mean	0.0910	0.4587	2.0		
SOLIDS	1155	7440-23-5	Sodium	150 to 15000	Study Mean	0.1043	15.0068	15		
SOLIDS	1160	7440-24-6	Strontium	40 to 400	Study Mean	0.0846	0.9208	4.0		
SOLIDS	1165	7440-28-0	Thallium	40 to 400	Study Mean	0.0785	3.0637	4.0		
SOLIDS	1175	7440-31-5	Tin	50 to 250	Study Mean	0.1134	3.0560	5.0		
SOLIDS	1185	7440-62-2	Vanadium	40 to 400	Study Mean	0.0618	4.6801	4.0		
SOLIDS	1190	7440-66-6	Zinc	100 to 1000	Study Mean ± 30%				10	



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Minerals					mg/kg					mg/kg
SOLIDS		1540	24959-67-9	Bromide	10 to 100	Study Mean	0.0848	0.3989	1.0	
SOLIDS		1575	16887-00-6	Chloride	200 to 1000	Study Mean	0.0892	5.3941	20	
SOLIDS		1730	16984-48-8	Fluoride	25 to 500	Study Mean	0.1781	2.0366	2.5	
SOLIDS		1810	NA	Nitrate as N	25 to 500	Study Mean	0.0676	2.4605	2.5	
SOLIDS		2000	14808-79-8	Sulfate	25 to 2000	Study Mean	0.1354	5.1265	2.5	
Nutrients					mg/kg					mg/kg
SOLIDS		1515	NA	Ammonia as N	300 to 3000	Study Mean	0.0931	39.0256	30	
SOLIDS		1795	NA	Total Kjeldahl-Nitrogen (TKN)	400 to 4000	Study Mean	0.1361	21.2081	40	
SOLIDS		1910	NA	Total Phosphorus	300 to 3000	Study Mean	0.2208	29.9538	30	
Misc Analytes					mg/kg					mg/kg
SOLIDS		1625	NA	Corrosivity (pH)	2 to 12 units	± 0.6 units fixed acceptance limit			not applicable	
SOLIDS		1645	NA	Total Cyanide	20 to 200	Study Mean	0.1701	2.0819	2.0	
SOLVENT		1780	NA	Ignitability	100 to 200 °F	± 17 °F fixed acceptance limit			not applicable	



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						a	b	c	d	
				Volatile Aromatics ¹	µg/kg					µg/kg
SOLIDS	4375		71-43-2	Benzene	20 to 200	Assigned Value ±35% fixed acceptance limit				13
SOLIDS	4475		108-90-7	Chlorobenzene	20 to 200	Assigned Value ±50% fixed acceptance limit				10
SOLIDS	4610		95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	20 to 200	Assigned Value ±40% fixed acceptance limit				12
SOLIDS	4615		541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	20 to 200	Assigned Value ±40% fixed acceptance limit				12
SOLIDS	4620		106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	20 to 200	Assigned Value ±40% fixed acceptance limit				12
SOLIDS	4765		100-41-4	Ethylbenzene	20 to 200	Assigned Value ±40% fixed acceptance limit				12
SOLIDS	5005		91-20-3	Naphthalene	40 to 200	Assigned Value ±50% fixed acceptance limit				20
SOLIDS	5100		100-42-5	Styrene	40 to 200	Assigned Value ±35% fixed acceptance limit				26
SOLIDS	5140		108-88-3	Toluene	20 to 200	Assigned Value ±35% fixed acceptance limit				13
SOLIDS	5155		120-82-1	1,2,4-Trichlorobenzene	40 to 200	Assigned Value ±60% fixed acceptance limit				16
SOLIDS	5240		NA	m/p-Xylenes	20 to 200	Assigned Value ±45% fixed acceptance limit				11
SOLIDS	5250		95-47-6	o-Xylene	20 to 200	Assigned Value ±45% fixed acceptance limit				11
SOLIDS	5260		1330-20-7	Xylene (total) ⁸	40 to 400	Assigned Value ±45% fixed acceptance limit				22
				Volatile Halocarbons ¹	µg/kg					µg/kg
SOLIDS	4395		75-27-4	Bromodichloromethane	20 to 200	Assigned Value ±40% fixed acceptance limit				12
SOLIDS	4400		75-25-2	Bromoform	20 to 200	Assigned Value ±45% fixed acceptance limit				11
SOLIDS	4455		56-23-5	Carbon tetrachloride	20 to 200	Assigned Value ±50% fixed acceptance limit				10
SOLIDS	4505		67-66-3	Chloroform	20 to 200	Assigned Value ±40% fixed acceptance limit				12
SOLIDS	4575		124-48-1	Chlorodibromomethane	20 to 200	Assigned Value ±40% fixed acceptance limit				12
SOLIDS	4570		96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	40 to 200	Assigned Value ±50% fixed acceptance limit				10
SOLIDS	4585		106-93-4	1,2-Dibromoethane (EDB, Ethylene dibromide)	20 to 200	Assigned Value ±35% fixed acceptance limit				13
SOLIDS	4630		75-34-3	1,1-Dichloroethane	20 to 200	Assigned Value ±40% fixed acceptance limit				12
SOLIDS	4635		107-06-2	1,2-Dichloroethane (Ethylene dichloride)	20 to 200	Assigned Value ±40% fixed acceptance limit				12
SOLIDS	4640		75-35-4	1,1-Dichloroethylene	20 to 200	Assigned Value ±50% fixed acceptance limit				10
SOLIDS	4645		156-59-2	cis-1,2-Dichloroethylene	20 to 200	Assigned Value ±40% fixed acceptance limit				12
SOLIDS	4700		156-60-5	trans-1,2-Dichloroethylene	20 to 200	Assigned Value ±40% fixed acceptance limit				12
SOLIDS	4975		75-09-2	Methylene chloride (Dichloromethane)	20 to 200	Assigned Value ±50% fixed acceptance limit				10
SOLIDS	4655		78-87-5	1,2-Dichloropropane	20 to 200	Assigned Value ±35% fixed acceptance limit				13
SOLIDS	4680		10061-01-5	cis-1,3-Dichloropropene	20 to 200	Assigned Value ±40% fixed acceptance limit				12
SOLIDS	4685		10061-02-6	trans-1,3-Dichloropropylene	20 to 200	Assigned Value ±45% fixed acceptance limit				11
SOLIDS	5105		630-20-6	1,1,1,2-Tetrachloroethane	20 to 200	Assigned Value ±40% fixed acceptance limit				12
SOLIDS	5110		79-34-5	1,1,2,2-Tetrachloroethane	20 to 200	Assigned Value ±45% fixed acceptance limit				11
SOLIDS	5115		127-18-4	Tetrachloroethylene (Perchloroethylene)	20 to 200	Assigned Value ±50% fixed acceptance limit				10
SOLIDS	5160		71-55-6	1,1,1-Trichloroethane	20 to 200	Assigned Value ±45% fixed acceptance limit				11
SOLIDS	5165		79-00-5	1,1,2-Trichloroethane	20 to 200	Assigned Value ±30% fixed acceptance limit				14
SOLIDS	5170		79-01-6	Trichloroethene (Trichloroethylene)	20 to 200	Assigned Value ±40% fixed acceptance limit				12
SOLIDS	5180		96-18-4	1,2,3-Trichloropropane	20 to 200	Assigned Value ±50% fixed acceptance limit				12



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						a	b	c	d	
Volatile Ketone/Ethers ¹										
					µg/kg					µg/kg
SOLIDS		4315	67-64-1	Acetone	200 to 1000	0.8050	15.8965	0.2255	11.6574	20
SOLIDS		4410	78-93-3	2-Butanone (Methyl ethyl ketone, MEK)	100 to 500	0.9457	-5.6053	0.1832	7.9158	10
SOLIDS		4860	591-78-6	2-Hexanone	100 to 500	Assigned Value ±50% fixed acceptance limit				50
SOLIDS		4995	108-10-1	4-Methyl-2-pentanone (MIBK)	100 to 500	Assigned Value ±50% fixed acceptance limit				50
SOLIDS		5000	1634-04-4	Methyl tert-butyl ether (MTBE)	20 to 200	Assigned Value ±40% fixed acceptance limit				12
Medium Level Volatile Aromatics ¹										
					µg/kg					µg/kg
SOLIDS		4375	71-43-2	Benzene	1000 to 10000	Assigned Value ±25% fixed acceptance limit				750
SOLIDS		4475	108-90-7	Chlorobenzene	1000 to 10000	Assigned Value ±25% fixed acceptance limit				750
SOLIDS		4610	95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1000 to 10000	Assigned Value ±25% fixed acceptance limit				750
SOLIDS		4615	541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1000 to 10000	1.0087	-3.5854	0.0610	72.1547	606
SOLIDS		4620	106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1000 to 10000	0.9814	78.8567	0.0672	45.0983	723
SOLIDS		4765	100-41-4	Ethylbenzene	1000 to 10000	Assigned Value ±30% fixed acceptance limit				700
SOLIDS		5005	91-20-3	Naphthalene	2000 to 10000	1.0092	-147.4204	0.0896	204.0207	721
SOLIDS		5100	100-42-5	Styrene	2000 to 10000	Assigned Value ±40% fixed acceptance limit				1200
SOLIDS		5140	108-88-3	Toluene	1000 to 10000	Assigned Value ±25% fixed acceptance limit				750
SOLIDS		5155	120-82-1	1,2,4-Trichlorobenzene	2000 to 10000	Assigned Value ±40% fixed acceptance limit				1200
SOLIDS		5240	NA	m/p-Xylenes	1000 to 10000	Assigned Value ±30% fixed acceptance limit				700
SOLIDS		5250	95-47-6	o-Xylene	1000 to 10000	Assigned Value ±30% fixed acceptance limit				700
SOLIDS		5260	1330-20-7	Xylene (total) ⁸	2000 to 20000	Assigned Value ±30% fixed acceptance limit				700



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						a	b	c	d	
Medium Level Volatile Halocarbons ¹										µg/kg
SOLIDS	4395	75-27-4		Bromodichloromethane	1000 to 10000	Assigned Value ±35% fixed acceptance limit				650
SOLIDS	4400	75-25-2		Bromoform	1000 to 10000	Assigned Value ±40% fixed acceptance limit				600
SOLIDS	4455	56-23-5		Carbon tetrachloride	1000 to 10000	0.9879	26.1250	0.1091	69.0570	480
SOLIDS	4505	67-66-3		Chloroform	1000 to 10000	Assigned Value ±30% fixed acceptance limit				700
SOLIDS	4575	124-48-1		Chlorodibromomethane	1000 to 10000	Assigned Value ±30% fixed acceptance limit				700
SOLIDS	4570	96-12-8		1,2-Dibromo-3-chloropropane (DBCP)	2000 to 10000	Assigned Value ±40% fixed acceptance limit				1200
SOLIDS	4585	106-93-4		1,2-Dibromoethane (EDB, Ethylene dibromide)	2000 to 10000	Assigned Value ±40% fixed acceptance limit				1200
SOLIDS	4595	74-95-3		Dibromomethane (Methylene bromide)	2000 to 10000	Assigned Value ±40% fixed acceptance limit				1200
SOLIDS	4630	75-34-3		1,1-Dichloroethane	1000 to 10000	Assigned Value ±35% fixed acceptance limit				650
SOLIDS	4635	107-06-2		1,2-Dichloroethane (Ethylene dichloride)	1500 to 10000	0.9960	32.3273	0.0711	81.3421	930
SOLIDS	4640	75-35-4		1,1-Dichloroethylene	2000 to 10000	Assigned Value ±50% fixed acceptance limit				1000
SOLIDS	4645	156-59-2		cis-1,2-Dichloroethylene	2000 to 10000	Assigned Value ±40% fixed acceptance limit				1200
SOLIDS	4700	156-60-5		trans-1,2-Dichloroethylene	2000 to 10000	Assigned Value ±40% fixed acceptance limit				1200
SOLIDS	4975	75-09-2		Methylene chloride (Dichloromethane)	1000 to 10000	Assigned Value ±40% fixed acceptance limit				600
SOLIDS	4655	78-87-5		1,2-Dichloropropane	2000 to 10000	Assigned Value ±30% fixed acceptance limit				1400
SOLIDS	4680	10061-01-5		cis-1,3-Dichloropropene	2000 to 10000	Assigned Value ±40% fixed acceptance limit				1200
SOLIDS	4685	10061-02-6		trans-1,3-Dichloropropylene	2000 to 10000	Assigned Value ±40% fixed acceptance limit				1200
SOLIDS	5105	630-20-6		1,1,1,2-Tetrachloroethane	1000 to 10000	0.9905	84.3577	0.0715	113.3756	520
SOLIDS	5110	79-34-5		1,1,2,2-Tetrachloroethane	1500 to 10000	0.9884	-45.8370	0.0927	188.2879	455
SOLIDS	5115	127-18-4		Tetrachloroethylene (Perchloroethylene)	1000 to 10000	1.0045	93.5934	0.1125	4.6555	747
SOLIDS	5160	71-55-6		1,1,1-Trichloroethane	1000 to 10000	Assigned Value ±40% fixed acceptance limit				600
SOLIDS	5165	79-00-5		1,1,2-Trichloroethane	1000 to 10000	Assigned Value ±35% fixed acceptance limit				650
SOLIDS	5170	79-01-6		Trichloroethene (Trichloroethylene)	1000 to 10000	0.9971	67.2206	0.0840	56.3450	643
SOLIDS	5180	96-18-4		1,2,3-Trichloropropane	1500 to 10000	Assigned Value ±45% fixed acceptance limit				825
Medium Level Volatile Ketone/Ethers ¹										µg/kg
SOLIDS	4315	67-64-1		Acetone	4000 to 20000	0.9105	-72.7923	0.2023	70.9627	929
SOLIDS	4410	78-93-3		2-Butanone (Methyl ethyl ketone, MEK)	4000 to 20000	0.8688	472.7627	0.1877	295.7230	808
SOLIDS	4860	591-78-6		2-Hexanone	4000 to 20000	Assigned Value ±50% fixed acceptance limit				2000
SOLIDS	4995	108-10-1		4-Methyl-2-pentanone (MIBK)	4000 to 20000	Assigned Value ±50% fixed acceptance limit				2000
SOLIDS	5000	1634-04-4		Methyl tert-butyl ether (MTBE)	2000 to 10000	Assigned Value ±30% fixed acceptance limit				1400
Volatile Petroleum Hydrocarbons										mg/kg
SOLIDS	9408	8006-61-9		Gasoline Range Organics (GRO) ⁹	100 to 2000	Study Mean		0.1900	74.9808	10



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				Base/Neutrals ¹	µg/kg					µg/kg
SOLIDS	5500		83-32-9	Acenaphthene	1000 to 12000	Study Mean	0.1967	2.4526		100
SOLIDS	5505		208-96-8	Acenaphthylene	1000 to 12000	Study Mean	0.2110	0.8053		100
SOLIDS	5555		120-12-7	Anthracene	1000 to 12000	Study Mean	0.1677	68.9191		100
SOLIDS	5575		56-55-3	Benzo(a)anthracene	1000 to 12000	Study Mean	0.1671	20.6877		100
SOLIDS	5585		205-99-2	Benzo(b)fluoranthene	1000 to 12000	Study Mean	0.1929	23.6955		100
SOLIDS	5600		207-08-9	Benzo(k)fluoranthene	1000 to 12000	Study Mean	0.1966	5.3583		100
SOLIDS	5590		191-24-2	Benzo(g,h,i)perylene	1000 to 12000	Study Mean	0.1958	26.7399		100
SOLIDS	5580		50-32-8	Benzo(a)pyrene	1000 to 12000	Study Mean	0.1801	66.9233		100
SOLIDS	5660		101-55-3	4-Bromophenyl phenyl ether (BDE-3)	1500 to 15000	Study Mean	0.1949	25.3431		150
SOLIDS	5670		85-68-7	Butyl benzyl phthalate	1000 to 12000	Study Mean	0.2095	16.2887		100
SOLIDS	5765		111-44-4	bis(2-Chloroethyl) ether	1500 to 15000	Study Mean	0.2158	173.8570		150
SOLIDS	5760		111-91-1	bis(2-Chloroethoxy)methane	1000 to 12000	Study Mean	0.1953	88.5249		100
SOLIDS	4659		108-60-1	2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether ¹³	1500 to 15000	Study Mean	0.2515	26.3474		150
SOLIDS	5795		91-58-7	2-Chloronaphthalene	1000 to 12000	Study Mean	0.2181	6.8913		100
SOLIDS	5825		7005-72-3	4-Chlorophenyl phenylether	1000 to 12000	Study Mean	0.2077	5.9161		100
SOLIDS	5855		218-01-9	Chrysene	1000 to 12000	Study Mean	0.1626	29.1501		100
SOLIDS	5895		53-70-3	Dibenz(a,h) anthracene	1000 to 12000	Study Mean	0.1868	81.9994		100
SOLIDS	5905		132-64-9	Dibenzofuran	1500 to 15000	Study Mean	0.1772	34.8698		150
SOLIDS	4610		95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1500 to 15000	Study Mean	0.2786	81.9879		150
SOLIDS	4615		541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1500 to 15000	Study Mean	0.3292	69.8039		150
SOLIDS	4620		106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1500 to 15000	Study Mean	0.3249	28.1719		150
SOLIDS	6070		84-66-2	Diethyl phthalate	1000 to 12000	Study Mean	0.1952	14.2186		100
SOLIDS	6135		131-11-3	Dimethyl phthalate	1000 to 12000	Study Mean	0.1898	37.0036		100
SOLIDS	5925		84-74-2	Di-n-butyl phthalate	1000 to 12000	Study Mean	0.2232	24.5306		100
SOLIDS	6185		121-14-2	2,4-Dinitrotoluene (2,4-DNT)	1500 to 15000	Study Mean	0.1901	59.3569		150
SOLIDS	6190		606-20-2	2,6-Dinitrotoluene (2,6-DNT)	1500 to 15000	Study Mean	0.1804	16.8136		150
SOLIDS	6200		117-84-0	Di-n-octyl phthalate	1000 to 12000	Study Mean	0.2306	52.0201		100
SOLIDS	6065		117-81-7	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	1500 to 15000	Study Mean	0.2109	100.6288		150
SOLIDS	6265		206-44-0	Fluoranthene	1000 to 12000	Study Mean	0.1909	27.4902		100
SOLIDS	6270		86-73-7	Fluorene	1000 to 12000	Study Mean	0.1714	57.1721		100
SOLIDS	4840		67-72-1	Hexachloroethane	1500 to 15000	Study Mean	0.3365	0.7453		150
SOLIDS	6275		118-74-1	Hexachlorobenzene	1500 to 15000	Study Mean	0.1713	4.7899		150
SOLIDS	4835		87-68-3	Hexachlorobutadiene	1500 to 15000	Study Mean	0.2252	61.2677		150
SOLIDS	6315		193-39-5	Indeno(1,2,3-cd) pyrene	1000 to 12000	Study Mean	0.2577	6.0686		100



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Base/Neutrals cont' ¹										
					µg/kg					µg/kg
SOLIDS	6320		78-59-1	Isophorone	1500 to 15000	Study Mean	0.2107	52.3126	150	
SOLIDS	6385		91-57-6	2-Methylnaphthalene	1000 to 12000	Study Mean	0.2027	28.7219	100	
SOLIDS	5005		91-20-3	Naphthalene	1000 to 12000	Study Mean	0.2408	35.4651	100	
SOLIDS	5015		98-95-3	Nitrobenzene	1500 to 15000	Study Mean	0.2129	84.7934	150	
SOLIDS	6545		621-64-7	n-Nitrosodi-n-propylamine	1500 to 15000	Study Mean	0.2463	5.3389	150	
SOLIDS	6615		85-01-8	Phenanthrene	1000 to 12000	Study Mean	0.1801	5.2498	100	
SOLIDS	6665		129-00-0	Pyrene	1000 to 12000	Study Mean	0.2025	15.1287	100	
SOLIDS	5155		120-82-1	1,2,4-Trichlorobenzene	1500 to 15000	Study Mean	0.1952	170.2017	150	
Acids ¹										
					µg/kg					µg/kg
SOLIDS	5700		59-50-7	4-Chloro-3-methylphenol	1500 to 15000	Study Mean	0.1989	52.6198	150	
SOLIDS	5800		95-57-8	2-Chlorophenol	1500 to 15000	Study Mean	0.2418	15.4376	150	
SOLIDS	6000		120-83-2	2,4-Dichlorophenol	1500 to 15000	Study Mean	0.2092	70.7176	150	
SOLIDS	6400		95-48-7	2-Methylphenol (o-Cresol)	3000 to 15000	Study Mean	0.2419	113.6401	300	
SOLIDS	6410		106-44-5	4-Methylphenol (p-Cresol) ¹⁰	3000 to 15000	Study Mean ±3SD			300	
SOLIDS	6490		88-75-5	2-Nitrophenol	3000 to 15000	Study Mean	0.2513	18.3228	300	
SOLIDS	6500		100-02-7	4-Nitrophenol	3000 to 15000	Study Mean	0.3639	171.2300	300	
SOLIDS	6625		108-95-2	Phenol	1500 to 15000	Study Mean	0.2381	26.3795	150	
SOLIDS	6605		87-86-5	Pentachlorophenol	3000 to 15000	Study Mean	0.2714	282.8578	300	
SOLIDS	6835		95-95-4	2,4,5-Trichlorophenol	1500 to 15000	Study Mean	0.2309	17.6405	150	
SOLIDS	6840		88-06-2	2,4,6-Trichlorophenol	1500 to 15000	Study Mean	0.2031	72.3886	150	
PCBs ^{2, 15}										
					mg/kg					mg/kg
SOLIDS	8880		12674-11-2	Aroclor-1016 (PCB-1016)	1 to 50	Study Mean	0.2239	0.1196	0.1	
SOLIDS	8885		11104-28-2	Aroclor-1221 (PCB-1221)	1 to 50	Study Mean	0.2239	0.1196	0.1	
SOLIDS	8890		11141-16-5	Aroclor-1232 (PCB-1232)	1 to 50	Study Mean	0.2239	0.1196	0.1	
SOLIDS	8895		53469-21-9	Aroclor-1242 (PCB-1242)	1 to 50	Study Mean	0.2239	0.1196	0.1	
SOLIDS	8900		12672-29-6	Aroclor-1248 (PCB-1248)	1 to 50	Study Mean	0.2239	0.1196	0.1	
SOLIDS	8905		11097-69-1	Aroclor-1254 (PCB-1254)	1 to 50	Study Mean	0.2239	0.1196	0.1	
SOLIDS	8910		11096-82-5	Aroclor-1260 (PCB-1260)	1 to 50	Study Mean	0.2239	0.1196	0.1	
PCBs in Oil ^{2, 15}										
					mg/kg					mg/kg
OIL	8880		12674-11-2	Aroclor-1016 (PCB-1016)	10 to 50	0.7712	1.1019	0.1919	0.7331	0.86
OIL	8885		11104-28-2	Aroclor-1221 (PCB-1221)	12 to 50	0.7712	1.1019	0.1919	0.7331	1.25
OIL	8890		11141-16-5	Aroclor-1232 (PCB-1232)	12 to 50	0.7712	1.1019	0.1919	0.7331	1.25
OIL	8895		53469-21-9	Aroclor-1242 (PCB-1242)	10 to 50	0.7712	1.1019	0.1919	0.7331	0.86
OIL	8900		12672-29-6	Aroclor-1248 (PCB-1248)	12 to 50	0.7712	1.1019	0.1919	0.7331	1.25
OIL	0100	8905	11097-69-1	Aroclor-1254 (PCB-1254)	10 to 50	0.7712	1.1019	0.1919	0.7331	0.86
OIL	0101	8910	11096-82-5	Aroclor-1260 (PCB-1260)	10 to 50	0.7712	1.1019	0.1919	0.7331	0.86



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						a	b	c	d	
Organochlorine Pesticides ^{1,14}										µg/kg
SOLIDS	7025		309-00-2	Aldrin	50 to 500	Study Mean		0.2024	1.8529	5.0
SOLIDS	7110		319-84-6	alpha-BHC (alpha-Hexachlorocyclohexane)	50 to 500	Study Mean		0.2004	3.1776	5.0
SOLIDS	7115		319-85-7	beta-BHC (beta-Hexachlorocyclohexane)	50 to 500	Study Mean		0.1788	9.4062	5.0
SOLIDS	7105		319-86-8	delta-BHC	50 to 500	Study Mean		0.2041	5.5821	5.0
SOLIDS	7120		58-89-9	gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	50 to 500	Study Mean		0.1955	6.0037	5.0
SOLIDS	7240		5103-71-9	cis-Chlordane, alpha-Chlordane	50 to 500	Study Mean		0.1876	0.6823	5.0
SOLIDS	7245		5566-34-7	gamma-Chlordane	50 to 500	Study Mean		0.1666	2.0584	5.0
SOLIDS	7250		12789-03-6	Chlordane (tech.)	100 to 1000	Study Mean		0.2357	1.1633	10
SOLIDS	7355		72-54-8	4,4'-DDD ^{14a}	50 to 500	Study Mean		0.1697	8.1705	5.0
SOLIDS	7360		72-55-9	4,4'-DDE ^{14a}	50 to 500	Study Mean		0.1818	4.4461	5.0
SOLIDS	7365		50-29-3	4,4'-DDT ^{14a}	50 to 500	Study Mean		0.2243	2.6522	5.0
SOLIDS	7470		60-57-1	Dieldrin	50 to 500	Study Mean		0.1672	4.0365	5.0
SOLIDS	7510		959-98-8	Endosulfan I	50 to 500	Study Mean		0.1824	5.0749	5.0
SOLIDS	7515		33213-65-9	Endosulfan II	50 to 500	Study Mean		0.2026	3.2251	5.0
SOLIDS	7520		1031-07-8	Endosulfan sulfate	50 to 500	Study Mean		0.2361	2.5159	5.0
SOLIDS	7540		72-20-8	Endrin ^{14b}	50 to 500	Study Mean		0.1435	7.1706	5.0
SOLIDS	7530		7421-93-4	Endrin aldehyde ^{14b}	50 to 500	Study Mean		0.2309	10.0975	5.0
SOLIDS	7535		53494-70-5	Endrin ketone ^{14b}	50 to 500	Study Mean		0.2190	2.7268	5.0
SOLIDS	7685		76-44-8	Heptachlor	50 to 500	Study Mean		0.1911	2.5619	5.0
SOLIDS	7690		1024-57-3	Heptachlor epoxide	50 to 500	Study Mean		0.1786	2.4451	5.0
SOLIDS	7810		72-43-5	Methoxychlor	50 to 500	Study Mean		0.2696	6.0889	5.0
SOLIDS	8250		8001-35-2	Toxaphene (Chlorinated Camphene)	200 to 2000	Study Mean	±3SD			20
Herbicides ¹										µg/kg
SOLIDS	8545		94-75-7	2,4-D	100 to 1000	Study Mean	±3SD			10
SOLIDS	8560		94-82-6	2,4-DB	100 to 1000	Study Mean	±3SD			10
SOLIDS	8595		1918-00-9	Dicamba	100 to 1000	Study Mean	±3SD			10
SOLIDS	8620		88-85-7	Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	100 to 1000	Study Mean	±3SD			10
SOLIDS	6605		87-86-5	Pentachlorophenol	100 to 1000	Study Mean	±3SD			10
SOLIDS	8655		93-76-5	2,4,5-T	100 to 1000	Study Mean	±3SD			10
SOLIDS	8650		93-72-1	Silvex (2,4,5-TP)	100 to 1000	Study Mean	±3SD			10



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						a	b	c	d	
Petroleum Hydrocarbons					mg/kg					mg/kg
SOLIDS		9369	68334-30-5	Diesel Range Organics (DRO) ¹¹	300 to 3000	Study Mean	0.2097	7.5527	30	
SOLIDS		1803	NA	n-Hexane Extractable Material (O&G) ¹²	300 to 3000	Study Mean	0.1567	88.0394	30	
Low Level Polyaromatic Hydrocarbons (PAHs) ¹					µg/kg					µg/kg
SOLIDS		5500	83-32-9	Acenaphthene	100 to 1000	Study Mean	0.2258	2.4018	15	
SOLIDS		5505	208-96-8	Acenaphthylene	150 to 1000	Study Mean	0.3181	4.1175	15	
SOLIDS		5555	120-12-7	Anthracene	100 to 1000	Study Mean	0.1839	3.1705	10	
SOLIDS		5575	56-55-3	Benzo(a)anthracene	50 to 500	Study Mean	0.1562	2.8639	5.0	
SOLIDS		5585	205-99-2	Benzo(b)fluoranthene	50 to 500	Study Mean	0.1370	3.1001	5.0	
SOLIDS		5600	207-08-9	Benzo(k)fluoranthene	50 to 500	Study Mean	0.1300	5.4343	5.0	
SOLIDS		5590	191-24-2	Benzo(g,h,i)perylene	50 to 500	Study Mean	0.1724	4.5522	10	
SOLIDS		5580	50-32-8	Benzo(a)pyrene	50 to 500	Study Mean	0.1771	3.7794	5.0	
SOLIDS		5855	218-01-9	Chrysene	50 to 500	Study Mean	0.1884	0.0425	5.0	
SOLIDS		5895	53-70-3	Dibenz(a,h) anthracene	50 to 500	Study Mean	0.1591	2.6430	5.0	
SOLIDS		6265	206-44-0	Fluoranthene	50 to 500	Study Mean	0.1529	3.9780	10	
SOLIDS		6270	86-73-7	Fluorene	50 to 500	Study Mean	0.2169	2.2266	5.0	
SOLIDS		6315	193-39-5	Indeno(1,2,3-cd) pyrene	50 to 500	Study Mean	0.1330	6.2268	5.0	
SOLIDS		5005	91-20-3	Naphthalene	150 to 1000	Study Mean	0.3079	1.5325	15	
SOLIDS		6615	85-01-8	Phenanthrene	100 to 1000	Study Mean	0.1921	0.1970	10	
SOLIDS		6665	129-00-0	Pyrene	50 to 500	Study Mean	0.1816	2.1374	5.0	



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						a	b	c	d	

1) For volatiles, base/neutrals, acids, organochlorine pesticides, herbicides and low level PAHs standards, providers must include a minimum number of analytes using the criteria described below:

PT samples that are to be scored for one to ten analytes must include all of these analytes.

PT samples that are to be scored for ten to twenty analytes must include at least ten of these analytes or 80% of the total, whichever number is greater.

PT samples that are to be scored for more than twenty analytes must include at least sixteen of these analytes or 60% of the total, whichever number is greater.

If the calculated percentage of the total number of analytes in the PT sample is a fraction, the fraction shall be rounded up to the next whole number.

2) One sample in every study, containing one Aroclor, selected at random from among the Aroclors listed above.

3) Acceptance limits are set at the Mean \pm 3 Standard Deviations (SD).

Where the a, b, c and d factors are presented, Mean = $a \cdot T + b$; SD = $c \cdot T + d$ where T is the assigned value.

Where the c and d factors are presented, Mean = Robust Study Mean; SD = $c \cdot X + d$ where X is the Robust Study Mean.

Where no factors are presented (Study Mean \pm 3SD), Mean = Robust Study Mean, SD = Robust Study Standard Deviation.

Robust Study Mean and Standard Deviation are generated using statistical analysis of study data set. (ie. Bi-weight, Grubbs, Dixon, etc.)

4) If the lower acceptance limit generated using the criteria contained in this table is less than 10% of the assigned value or the PTRL, the lower acceptance limits are set at 10% of the assigned value or the PTRL whichever is higher.

5) If the lower acceptance limit generated using the criteria contained in this table is greater than 90% of the assigned value, the lower acceptance limits are set at 90% of the assigned value except where fixed limits are used.

6) If the upper acceptance limit generated using the criteria contained in this table is less than 110% of the assigned value, the upper acceptance limits are set at 110% of the assigned value except where fixed limits are used.

7) TNI Proficiency Testing Reporting Limit (PTRL) is a statistically derived value that represents the lowest acceptable concentration for an analyte in a proficiency test sample, if the analyte is spiked into the proficiency test sample.

TNI PTRLs are also used by PT Providers to set the assigned value for unspiked analytes. For all analytes with an assigned value equal to <PTRL, the PT Provider must verify that the PT sample does not contain the analyte at a concentration greater than or equal to one-half (1/2) of the PTRL.

Refer to the "TNI V1M1 2016 Standard Update Guidance on Proficiency Testing Reporting Limit (PTRL)", GUID-3-114-Rev0, October 15, 2018 for further information.

8) Volatiles Aromatics must contain all three Xylene isomers. The concentration range of o-Xylene and m&p-Xylene is 20-200 ug/kg or 1000-10000 (Medium Level) each.

9) Gasoline Range Organics (GRO) per purge-and-trap extraction followed by chromatographic analysis. GRO is defined as the carbon range between n-C₅ and n-C₁₀.

10) Laboratories seeking to report data for Solid and Chemical Material analyte 4-Methylphenol or the coeluting isomer pair of 3-Methylphenol and 4-Methylphenol must report the data as 4-Methylphenol.



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						a b c d	
11) Diesel Range Organics (DRO) per solvent extraction followed by chromatographic analysis. DRO is defined as the carbon range between n-C ₁₀ and n-C ₂₈ .							
12) n-Hexane Extractable Material (HEM) per solvent extraction followed by gravimetric or infrared spectrometric analysis (Oil & Grease).							
13) Also known as Bis(2-chloro-1-methylethyl) Ether, formerly known as Bis(2-chloroisopropyl) Ether.							
14) These analytes are specified as part of a method defined and evaluated degradation process. PT sample designs for these analytes must conform to the following: a) If the parent compound 4,4'-DDT is spiked into the PT sample, then its degradation products, 4,4'-DDD and 4,4'-DDE, must also be spiked into that PT sample. b) If the parent compound Endrin is spiked into the PT sample, then its degradation products, Endrin aldehyde and Endrin ketone, must also be spiked into that PT sample.							
15) A "Not Acceptable" evaluation of any one or more Aroclor Identifications constitutes a failure to demonstrate proficiency for all accredited Aroclors reported.							