

## Sample Results

---

### Report of Analysis

---

May 5, 2016

**Ag Choice Topsoil Sample Date 4/13/2016**  
**SGS Accutest Job Number: JC18285**

Sample comparison against NJ Non-Residential Direct Contact and NJ Residential Direct Contact standards indicates there are no exceedences in your sample.

Accutest New Jersey		May 02, 2016 10:51 am		
Job Number:	JC18285			
Account:	AG Choice			
Project:	NJDEP Res. Soils Test Top 1. Andover, NJ			
Project Number:				
Results flagged as "Exceed" if any of the selected criteria exceeded (most stringent).		Legend:	Hit	Exceed
Client Sample ID:		NJ Non-Residential Direct Contact Soil (NJAC 7:26D 5/12) <sup>1</sup>	NJ Residential Direct Contact Soil (NJAC 7:26D 5/12) <sup>1</sup>	AG CHOICE FARM
Lab Sample ID:				JC18285-1
Date Sampled:				04/13/2016
Matrix:				Soil
<b>GC/MS Volatiles (SW846 8260C)</b>				
Acetone	ug/kg	NA	70000000	43.8
Benzene	ug/kg	5000	2000	ND (0.26)
Bromochloromethane	ug/kg	-	-	ND (0.62)
Bromodichloromethane	ug/kg	3000	1000	ND (0.31)
Bromoform	ug/kg	280000	81000	ND (0.47)
Bromomethane	ug/kg	59000	25000	ND (0.72)
2-Butanone (MEK)	ug/kg	44000000	3100000	ND (3.8)
Carbon disulfide	ug/kg	110000000	7800000	ND (0.45)
Carbon tetrachloride	ug/kg	2000	600	ND (0.46)
Chlorobenzene	ug/kg	7400000	510000	ND (0.31)
Chloroethane	ug/kg	1100000	220000	ND (0.96)
Chloroform	ug/kg	2000	600	ND (0.30)
Chloromethane	ug/kg	12000	4000	ND (0.52)
Cyclohexane	ug/kg	-	-	ND (0.63)
1,2-Dibromo-3-chloropropane	ug/kg	200	80	ND (1.1)
Dibromochloromethane	ug/kg	8000	3000	ND (0.41)
1,2-Dibromoethane	ug/kg	40	8	ND (0.26)
1,2-Dichlorobenzene	ug/kg	59000000	5300000	ND (0.24)
1,3-Dichlorobenzene	ug/kg	59000000	5300000	ND (0.31)
1,4-Dichlorobenzene	ug/kg	13000	5000	ND (0.45)
Dichlorodifluoromethane	ug/kg	230000000	490000	ND (0.72)
1,1-Dichloroethane	ug/kg	24000	8000	ND (0.28)
1,2-Dichloroethane	ug/kg	3000	900	ND (0.27)
1,1-Dichloroethene	ug/kg	150000	11000	ND (1.2)
cis-1,2-Dichloroethene	ug/kg	560000	230000	ND (1.6)
trans-1,2-Dichloroethene	ug/kg	720000	300000	ND (1.2)
1,2-Dichloropropane	ug/kg	5000	2000	ND (0.47)
cis-1,3-Dichloropropene	ug/kg	7000	2000	ND (0.23)
trans-1,3-Dichloropropene	ug/kg	7000	2000	ND (0.35)
Ethylbenzene	ug/kg	110000000	7800000	ND (0.32)
Freon 113	ug/kg	-	-	ND (0.89)
2-Hexanone	ug/kg	-	-	ND (2.7)
Isopropylbenzene	ug/kg	-	-	ND (0.21)
Methyl Acetate	ug/kg	NA	78000000	ND (1.7)
Methylcyclohexane	ug/kg	-	-	ND (0.45)

Methyl Tert Butyl Ether	ug/kg	320000	110000	ND (0.30)
4-Methyl-2-pentanone(MIBK)	ug/kg	-	-	ND (0.91)
Methylene chloride	ug/kg	97000	34000	ND (2.0)
Styrene	ug/kg	260000	90000	ND (0.35)
1,1,2,2-Tetrachloroethane	ug/kg	3000	1000	ND (0.35)
Tetrachloroethene	ug/kg	5000	2000	ND (0.60)
Toluene	ug/kg	91000000	6300000	ND (0.41)
1,2,3-Trichlorobenzene	ug/kg	-	-	ND (0.35)
1,2,4-Trichlorobenzene	ug/kg	820000	73000	ND (0.34)
1,1,1-Trichloroethane	ug/kg	4200000	290000	ND (0.30)
1,1,2-Trichloroethane	ug/kg	6000	2000	ND (0.29)
Trichloroethene	ug/kg	20000	7000	ND (0.29)
Trichlorofluoromethane	ug/kg	340000000	23000000	ND (0.50)
Vinyl chloride	ug/kg	2000	700	ND (0.39)
m,p-Xylene	ug/kg	170000000	12000000	ND (0.70)
o-Xylene	ug/kg	170000000	12000000	ND (0.55)
Xylene (total)	ug/kg	170000000	12000000	ND (0.55)
<b>GC/MS Volatile TIC</b>				
Total TIC, Volatile	ug/kg	-	-	0
Total Alkanes	ug/kg	-	-	0
<b>GC/MS Semi-volatiles (SW846 8270D)</b>				
2-Chlorophenol	ug/kg	2200000	310000	ND (38)
4-Chloro-3-methyl phenol	ug/kg	-	-	ND (47)
2,4-Dichlorophenol	ug/kg	2100000	180000	ND (41)
2,4-Dimethylphenol	ug/kg	14000000	1200000	ND (95)
2,4-Dinitrophenol	ug/kg	1400000	120000	ND (230)
4,6-Dinitro-o-cresol	ug/kg	68000	6000	ND (98)
2-Methylphenol	ug/kg	3400000	310000	ND (75)
3&4-Methylphenol	ug/kg	-	-	157
2-Nitrophenol	ug/kg	-	-	ND (48)
4-Nitrophenol	ug/kg	-	-	ND (88)
Pentachlorophenol	ug/kg	10000	3000	ND (130)
Phenol	ug/kg	210000000	18000000	ND (39)
2,3,4,6-Tetrachlorophenol	ug/kg	-	-	ND (49)
2,4,5-Trichlorophenol	ug/kg	68000000	6100000	ND (47)
2,4,6-Trichlorophenol	ug/kg	74000	19000	ND (42)
Acenaphthene	ug/kg	37000000	3400000	ND (49)
Acenaphthylene	ug/kg	300000000	NA	ND (5.4)
Acetophenone	ug/kg	5000	2000	98.6 J
Anthracene	ug/kg	30000000	17000000	ND (4.5)
Atrazine	ug/kg	2400000	210000	ND (21)
Benzo(a)anthracene	ug/kg	2000	600	31.5 J
Benzo(a)pyrene	ug/kg	200	200	32.0 J
Benzo(b)fluoranthene	ug/kg	2000	600	49.7 J
Benzo(g,h,i)perylene	ug/kg	30000000	38000000	34.3 J
Benzo(k)fluoranthene	ug/kg	23000	6000	ND (12)
4-Bromophenyl phenyl ether	ug/kg	-	-	ND (12)
Butyl benzyl phthalate	ug/kg	14000000	1200000	ND (28)

1,1'-Biphenyl	ug/kg	34000000	3100000	ND (9.6)
Benzaldehyde	ug/kg	68000000	6100000	411
2-Chloronaphthalene	ug/kg	-	-	ND (7.4)
4-Chloroaniline	ug/kg	-	-	ND (14)
Carbazole	ug/kg	96000	24000	ND (5.7)
Caprolactam	ug/kg	340000000	31000000	ND (33)
Chrysene	ug/kg	230000	62000	28.7 J
bis(2-Chloroethoxy)methane	ug/kg	-	-	ND (12)
bis(2-Chloroethyl)ether	ug/kg	2000	400	ND (22)
bis(2-Chloroisopropyl)ether	ug/kg	67000	23000	ND (12)
4-Chlorophenyl phenyl ether	ug/kg	-	-	ND (9.7)
2,4-Dinitrotoluene	ug/kg	3000	700	ND (9.7)
2,6-Dinitrotoluene	ug/kg	3000	700	ND (13)
3,3'-Dichlorobenzidine	ug/kg	4000	1000	ND (34)
1,4-Dioxane	ug/kg	-	-	ND (35)
Dibenzo(a,h)anthracene	ug/kg	200	200	ND (18)
Dibenzofuran	ug/kg	-	-	ND (7.2)
Di-n-butyl phthalate	ug/kg	68000000	6100000	ND (6.1)
Di-n-octyl phthalate	ug/kg	27000000	2400000	ND (7.0)
Diethyl phthalate	ug/kg	550000000	49000000	ND (6.6)
Dimethyl phthalate	ug/kg	-	-	ND (7.4)
bis(2-Ethylhexyl)phthalate	ug/kg	140000	35000	72.0 J
Fluoranthene	ug/kg	24000000	2300000	33.2 J
Fluorene	ug/kg	24000000	2300000	ND (6.2)
Hexachlorobenzene	ug/kg	1000	300	ND (10)
Hexachlorobutadiene	ug/kg	25000	6000	ND (14)
Hexachlorocyclopentadiene	ug/kg	110000	45000	ND (82)
Hexachloroethane	ug/kg	140000	35000	ND (17)
Indeno(1,2,3-cd)pyrene	ug/kg	2000	600	ND (27)
Isophorone	ug/kg	2000000	510000	ND (9.7)
2-Methylnaphthalene	ug/kg	2400000	230000	ND (9.7)
2-Nitroaniline	ug/kg	23000000	39000	ND (12)
3-Nitroaniline	ug/kg	-	-	ND (15)
4-Nitroaniline	ug/kg	-	-	ND (17)
Naphthalene	ug/kg	17000	6000	ND (8.3)
Nitrobenzene	ug/kg	340000	31000	ND (16)
N-Nitroso-di-n-propylamine	ug/kg	300	200	ND (15)
N-Nitrosodiphenylamine	ug/kg	390000	99000	ND (27)
Phenanthrene	ug/kg	300000000	NA	ND (5.7)
Pyrene	ug/kg	18000000	1700000	43.3 J
1,2,4,5-Tetrachlorobenzene	ug/kg	-	-	ND (12)
<b>GC/MS Semi-volatile TIC</b>				
Total TIC, Semi-Volatile	ug/kg	-	-	177000 J
Total Alkanes	ug/kg	-	-	15000 J
<b>GC Semi-volatiles (NJDEP EPH)</b>				
C10-C12 Aromatics	mg/kg	-	-	ND (0.098)
C12-C16 Aromatics	mg/kg	-	-	ND (0.23)
C16-C21 Aromatics	mg/kg	-	-	16.1

C21-C36 Aromatics	mg/kg	-	-	64.0
Total Aromatics	mg/kg	-	-	80.2
C9-C12 Aliphatics	mg/kg	-	-	ND (0.17)
C12-C16 Aliphatics	mg/kg	-	-	ND (0.16)
C16-C21 Aliphatics	mg/kg	-	-	ND (3.0)
C21-C40 Aliphatics	mg/kg	-	-	43.0
Total Aliphatics	mg/kg	-	-	43.0
Total EPH	mg/kg	-	-	123
<b>GC Semi-volatiles (SW846 8081B)</b>				
Aldrin	ug/kg	200	40	ND (0.92)
alpha-BHC	ug/kg	500	100	ND (0.69)
beta-BHC	ug/kg	2000	400	ND (0.63)
delta-BHC	ug/kg	-	-	ND (0.40)
gamma-BHC (Lindane)	ug/kg	2000	400	ND (0.47)
alpha-Chlordane	ug/kg	1000	200	ND (0.55)
gamma-Chlordane	ug/kg	1000	200	ND (0.78)
Chlordane (alpha and gamma)	ug/kg	1000	200	ND (0.55)
Dieldrin	ug/kg	200	40	ND (0.80)
4,4'-DDD	ug/kg	13000	3000	ND (0.38)
4,4'-DDE	ug/kg	9000	2000	1.9 <sup>a</sup>
4,4'-DDT	ug/kg	8000	2000	ND (0.39)
Endrin	ug/kg	340000	23000	ND (0.36)
Endosulfan sulfate	ug/kg	6800000	470000	ND (0.58)
Endrin aldehyde	ug/kg	-	-	ND (0.76)
Endosulfan-I	ug/kg	6800000	470000	ND (0.34)
Endosulfan-II	ug/kg	6800000	470000	ND (0.97)
Heptachlor	ug/kg	700	100	ND (0.84)
Heptachlor epoxide	ug/kg	300	70	ND (0.42)
Methoxychlor	ug/kg	5700000	390000	4.4 <sup>a</sup>
Endrin ketone	ug/kg	-	-	ND (0.54)
Toxaphene	ug/kg	3000	600	ND (18)
<b>GC Semi-volatiles (SW846 8082A)</b>				
Aroclor 1016	ug/kg	1000	200	ND (25)
Aroclor 1221	ug/kg	1000	200	ND (25)
Aroclor 1232	ug/kg	1000	200	ND (20)
Aroclor 1242	ug/kg	1000	200	ND (18)
Aroclor 1248	ug/kg	1000	200	ND (32)
Aroclor 1254	ug/kg	1000	200	ND (26)
Aroclor 1260	ug/kg	1000	200	ND (22)
Aroclor 1268	ug/kg	1000	200	ND (18)
Aroclor 1262	ug/kg	1000	200	ND (35)
<b>Metals Analysis</b>				
Aluminum	mg/kg	NA	78000	5720
Antimony	mg/kg	450	31	<3.2
Arsenic	mg/kg	19	19	5.4

Barium	mg/kg	59000	16000	44.8
Beryllium	mg/kg	140	16	0.46
Cadmium	mg/kg	78	78	<0.79
Calcium	mg/kg	-	-	33500
Chromium	mg/kg	-	-	9.8
Cobalt	mg/kg	590	1600	<7.9
Copper	mg/kg	45000	3100	15.1
Iron	mg/kg	-	-	12200
Lead	mg/kg	800	400	8.0
Magnesium	mg/kg	-	-	16100
Manganese	mg/kg	5900	11000	455
Mercury	mg/kg	65	23	0.040
Nickel	mg/kg	23000	1600	10.1
Potassium	mg/kg	-	-	3710
Selenium	mg/kg	5700	390	<3.2
Silver	mg/kg	5700	390	<0.79
Sodium	mg/kg	-	-	<1600
Thallium	mg/kg	79	5	<1.6
Vanadium	mg/kg	1100	78	15.9
Zinc	mg/kg	110000	23000	62.0

#### General Chemistry

Cyanide	mg/kg	23000	1600	<0.35
Solids, Percent	%	-	-	62.8

#### Footnotes:

<sup>a</sup> More than 40 % RPD for detected concentrations between the two GC columns.

Regulatory limits listed in this document have been obtained from the latest version of the regulations cited and are used for advisory purposes only. SGS Accutest assumes no responsibility for errors in regulatory documents or changes to criteria detailed in later versions of the referenced regulation. It is the responsibility of the user to verify these limits before using or reporting any data.

No results exceeded regulatory criteria.

<sup>1</sup> NOTE: Soil Remediation Standards from June 2008 were incorporated in the May 2012 rule without change.