

Sample: CTS  
Operator: W.S  
Submitter: s/n 212  
File: C:\MicroActive for ASAP 2460\data\UCG-...\USG-CT-S.SMP

Started: 2015/06/13 8:00:49	Analysis Adsorptive: N2
Completed: 2015/06/13 15:22:18	Analysis Bath Temp.: -195.800 °C
Report Time: 2016/11/24 5:37:13	Thermal Correction: No
Sample Mass: 0.0640 g	Warm Free Space: 17.5732 cm <sup>3</sup> Measured
Cold Free Space: 50.6062 cm <sup>3</sup>	Equilibration Interval: 10 s
Low Pressure Dose: 20.0000 cm <sup>3</sup> /g STP	Sample Density: 1.000 g/cm <sup>3</sup>
Automatic Degas: No	

### Summary Report

#### Surface Area

BET Surface Area: 1,400.0167 m<sup>2</sup>/g  
Langmuir Surface Area: 1,724.7140 m<sup>2</sup>/g  
t-Plot Micropore Area: 1,014.0533 m<sup>2</sup>/g

#### Pore Volume

t-Plot micropore volume: 0.401663 cm<sup>3</sup>/g  
BJH Adsorption cumulative volume of pores  
between 1.7000 nm and 300.0000 nm diameter: 0.122753 cm<sup>3</sup>/g  
BJH Desorption cumulative volume of pores  
between 1.7000 nm and 300.0000 nm diameter: 0.116517 cm<sup>3</sup>/g

#### Pore Size

BJH Adsorption average pore diameter (4V/A): 2.5612 nm  
BJH Desorption average pore diameter (4V/A): 2.5304 nm

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**BJH Adsorption Pore Distribution Report**

Faas Correction

Harkins and Jura

$$t = [ 13.99 / ( 0.034 - \log(P/P_0) ) ] ^{0.5}$$

Diameter Range: 1.7000 nm to 300.0000 nm

Adsorbate Property Factor: 0.95300 nm

Density Conversion Factor: 0.0015468

Fraction of Pores Open at Both Ends: 0.00

Pore Diameter Range (nm)	Average Diameter (nm)	Incremental Pore Volume (cm <sup>3</sup> /g)	Cumulative Pore Volume (cm <sup>3</sup> /g)	Incremental Pore Area (m <sup>2</sup> /g)	Cumulative Pore Area (m <sup>2</sup> /g)
347.2 - 184.1	219.4	0.001802	0.001802	0.033	0.033
184.1 - 96.0	114.3	0.001958	0.003760	0.069	0.101
96.0 - 65.5	75.0	0.001532	0.005292	0.082	0.183
65.5 - 49.7	55.3	0.001258	0.006550	0.091	0.274
49.7 - 39.8	43.6	0.001246	0.007796	0.114	0.388
39.8 - 27.1	31.0	0.002421	0.010217	0.312	0.701
27.1 - 20.7	23.0	0.002010	0.012227	0.350	1.051
20.7 - 16.7	18.2	0.001669	0.013896	0.366	1.417
16.7 - 14.0	15.1	0.001499	0.015395	0.397	1.814
14.0 - 12.1	12.9	0.001253	0.016648	0.389	2.203
12.1 - 10.6	11.2	0.001102	0.017750	0.393	2.596
10.6 - 9.4	9.9	0.000963	0.018713	0.387	2.983
9.4 - 8.5	8.9	0.000840	0.019553	0.377	3.361
8.5 - 7.7	8.1	0.000772	0.020325	0.383	3.743
7.7 - 7.1	7.4	0.000721	0.021047	0.392	4.136
7.1 - 6.5	6.8	0.000755	0.021801	0.447	4.583
6.5 - 6.0	6.2	0.000717	0.022518	0.460	5.043
6.0 - 5.6	5.8	0.000734	0.023252	0.508	5.551
5.6 - 5.2	5.4	0.000792	0.024044	0.589	6.140
5.2 - 4.9	5.0	0.000881	0.024925	0.701	6.841
4.9 - 4.6	4.7	0.000951	0.025876	0.808	7.649
4.6 - 4.3	4.4	0.000977	0.026852	0.884	8.533
4.3 - 4.0	4.2	0.000999	0.027851	0.961	9.495
4.0 - 3.8	3.9	0.001186	0.029037	1.211	10.706
3.8 - 3.6	3.7	0.001311	0.030348	1.419	12.125
3.6 - 3.4	3.5	0.001418	0.031766	1.625	13.750
3.4 - 3.2	3.3	0.001677	0.033443	2.032	15.782
3.2 - 3.0	3.1	0.001914	0.035357	2.451	18.232
3.0 - 2.9	3.0	0.002149	0.037506	2.905	21.137
2.9 - 2.7	2.8	0.002689	0.040195	3.835	24.972
2.7 - 2.6	2.7	0.003342	0.043537	5.033	30.005
2.6 - 2.5	2.5	0.004286	0.047823	6.817	36.822
2.5 - 2.3	2.4	0.005533	0.053356	9.298	46.120
2.3 - 2.2	2.3	0.007085	0.060441	12.588	58.708
2.2 - 2.1	2.1	0.009059	0.069499	17.037	75.745
2.1 - 1.9	2.0	0.012423	0.081923	24.823	100.567

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1.9 - 1.8	1.9	0.016901	0.098824	36.094	136.661
1.8 - 1.7	1.7	0.023929	0.122753	55.054	191.715