

Product Data

The CAPVU evaporator coils incorporate proven standards for reliable system operation and performance throughout the life of a quality Bryant Air Conditioner or Heat Pump system. Evaporator coils manufactured by Bryant and installed as part of a total comfort system provide ARI-rated performance ratings and are additionally listed with UL and c-UL.

DESIGN FEATURES

Performance — Designed with performance in mind, these A-coils offer low pressure drops to enhance system performance and airflow characteristics.

Aluminum Coils — Models are built with aluminum hairpins, designed to resist both general pitting corrosion and excessive indoor Formicary Corrosion. (Formicary Corrosion is an industry phenomenon.)

Thermostatic Expansion Valves (TXV) — All Bryant coils have refrigerant-specific, factory-installed TXVs.

Durable Condensate Pan — The corrosion-resistant drain pan is designed with a “fiberglass reinforced thermoset polyester” material (FRTP) that offers unsurpassed pan strength. It is engineered with proper slope to help ensure water drainage, reduced pan sweating and improved moisture removal for better home comfort.

Refrigerant Connections — The coils are provided with proven sweat connections for leak-free operation maintaining system reliability. The side mounting tubing to the coil slabs allows for easy cleaning and servicing of the coils, as well as easy access to the TXV.

Burst Pressure — These coils meet or exceed burst pressure of 2100 psi which is at least three to five times the pressure they will see in actual application.

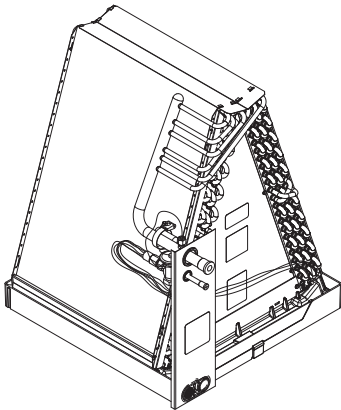
UV Knockouts — The cased coils also come with factory-installed UV knockouts for quick and easy installation of Bryant UV lights.

Serviceability — All the coils come with a “split-delta plate” for easy, quick access to the coil for service and cleaning. Also the coils are removable from the front of the unit without use of any tools (once the door is removed). The units are also designed with a single size screw, the same size as used on all our Bryant furnaces. One tool required for all jobs.

Installation Flexibility — The CAPVU evaporator coils are uncased A-coils that provide flexibility for a wide variety of field applications installed in either a factory-manufactured accessory casing, or a field-supplied plenum enclosure. Water management capabilities have been enhanced for downflow applications.

Coil Support — Bryant provides a standard factory pan support for the uncased coil, providing precise, durable support in the plenum for easier installations.

Face Plate — A unique Bryant feature, the face plate comes shipped with the uncased evaporator coil models, provides for a more professional installation and prevents air leaks at the refrigerant line connections.



CAPVU

A06002

MODEL NUMBER NOMENCLATURE

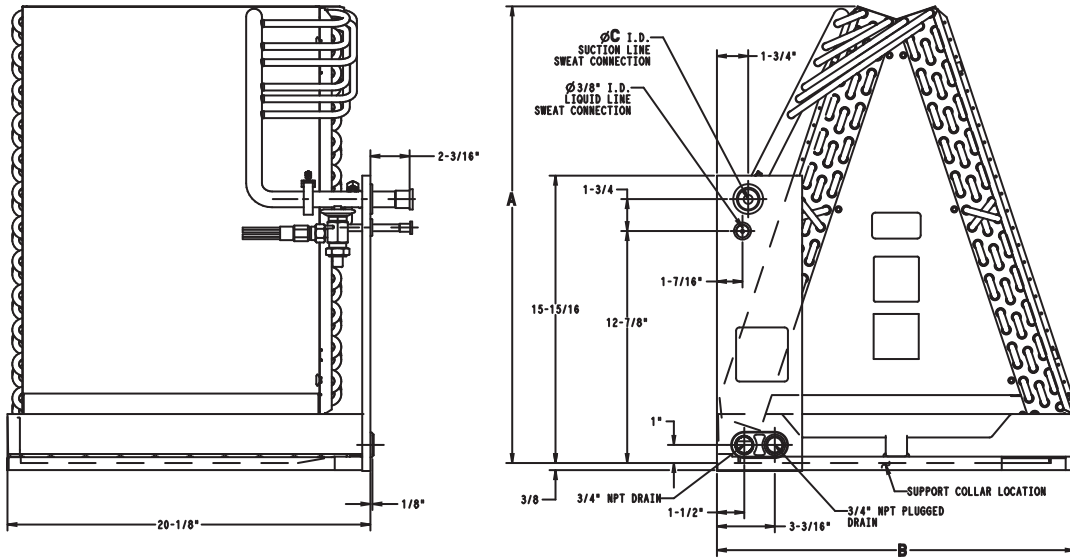
1 2 3 4 5 6 7 8 9 10 11 12
C A P V U 1 8 1 4 A L A

Product C = Coil															Variations A = Basic		
Type A – A Coil															Tubing Design L = Aluminum		
Refrigerant Type P = Puron® (R-410A) Refrigerant TXV																	Revision Level A = 1st
Coil Configuration V = Upflow / Downflow																Cabinet Width 14 = 14-in. / 356mm 17 = 17-in. / 432mm 21 = 21-in. / 533mm 24 = 24-in. / 610mm	
Cabinet Finish P = Painted U = Uncased															Unit Capacity 18 = 1 1/2 Ton 24 = 2 Ton 30 = 2 1/2 Ton 36 = 3 Ton 37 = 3 Ton 42 = 3 1/2 Ton 48 = 4 Ton 60 = 5 Ton 61 = 5 Ton		



Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org.





A05393

DIMENSIONS - CAPVU

UNIT	A in. (mm.)	B in. (mm.)	C in. (mm.)	SHIPPING WT. lb. (kg.)
CAPVU1814ALA	13-5/8 (346)	13 (330)	5/8 (16)	22.0 (10)
CAPVU2414ALA	17-3/4 (451)	13 (330)	5/8 (16)	26.5 (12)
CAPVU2417ALA	17-1/4 (438)	16-5/16 (414)	5/8 (16)	29.0 (13)
CAPVU3014ALA	21-7/8 (556)	13 (330)	3/4 (19)	33.0 (15)
CAPVU3017ALA	21-7/16 (545)	16-5/16 (414)	3/4 (19)	33.0 (15)
CAPVU3617ALA	23-9/16 (598)	16-5/16 (414)	3/4 (19)	36.5 (17)
CAPVU3621ALA	23 (584)	19-13/16 (503)	3/4 (19)	37.5 (17)
CAPVU3717ALA	23-9/16 (598)	16-5/16 (414)	3/4 (19)	36.5 (17)
CAPVU4221ALA	25-1/16 (637)	19-13/16 (503)	7/8 (22)	40.0 (18)
CAPVU4224ALA	24-1/2 (622)	23-5/16 (592)	7/8 (22)	43.5 (20)
CAPVU4821ALA	25-5/16 (643)	19-13/16 (503)	7/8 (22)	49.0 (22)
CAPVU4824ALA	24-13/16 (630)	23-5/16 (592)	7/8 (22)	51.0 (23)
CAPVU6021ALA	31-1/2 (800)	19-13/16 (503)	7/8 (22)	59.5 (27)
CAPVU6121ALA	31-1/2 (800)	19-13/16 (503)	7/8 (22)	61.5 (28)
CAPVU6024ALA	31-1/16 (789)	23-5/16 (592)	7/8 (22)	57.0 (26)

PERFORMANCE DATA

COOLING CAPACITIES (MBH) – PURON® R-410 REFRIGERANT

CAPV UNIT SIZE	INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR °F (°C)														
			30 (-1)			35 (2)			40 (4)			45 (7)			50 (10)		
	CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
1814	450	72 (22)	32.00	15.70	0.00	29.30	14.30	0.00	26.40	12.80	0.00	23.10	11.30	0.00	19.50	9.70	0.01
		67 (19)	26.80	16.10	0.01	24.10	14.60	0.01	21.10	13.10	0.01	17.80	11.50	0.02	14.20	9.90	0.02
		62 (17)	22.10	16.50	0.02	19.30	14.90	0.02	16.40	13.40	0.02	13.20	11.80	0.02	10.30	10.30	0.05
	600	72 (22)	39.20	19.10	0.00	36.00	17.40	0.00	32.30	15.70	0.00	28.30	13.90	0.02	23.80	12.00	0.02
		67 (19)	32.90	19.90	0.03	29.60	18.20	0.03	25.90	16.30	0.03	21.90	14.40	0.03	17.40	12.50	0.03
		62 (17)	27.20	20.60	0.04	23.80	18.80	0.04	20.20	16.90	0.04	16.30	15.00	0.04	13.20	13.20	0.09
	750	72 (22)	45.10	21.90	0.00	41.40	20.10	0.00	37.20	18.20	0.02	32.60	16.10	0.04	27.40	14.00	0.04
		67 (19)	38.00	23.20	0.05	34.20	21.20	0.05	29.90	19.10	0.05	25.20	17.00	0.05	20.00	14.70	0.06
		62 (17)	31.50	24.20	0.06	27.60	22.10	0.06	23.40	20.00	0.06	19.10	17.90	0.06	15.70	15.70	0.13
2414 2417	600	72 (22)	39.40	19.20	0.00	36.30	17.60	0.00	32.80	15.90	0.00	28.90	14.10	0.00	24.50	12.20	0.01
		67 (19)	33.10	20.00	0.01	29.90	18.20	0.01	26.30	16.40	0.01	22.40	14.50	0.02	17.90	12.60	0.02
		62 (17)	27.40	20.50	0.02	24.10	18.70	0.02	20.50	16.90	0.02	16.60	15.00	0.02	13.10	13.10	0.05
	800	72 (22)	47.70	23.20	0.00	44.00	21.40	0.00	39.80	19.40	0.00	35.10	17.30	0.02	29.80	15.10	0.02
		67 (19)	40.30	24.50	0.03	36.40	22.50	0.03	32.10	20.40	0.03	27.30	18.10	0.03	21.80	15.80	0.03
		62 (17)	33.40	25.50	0.04	29.50	23.40	0.04	25.10	21.20	0.04	20.50	19.00	0.04	16.70	16.70	0.09
	1000	72 (22)	54.30	26.40	0.00	50.20	24.40	0.00	45.40	22.30	0.02	40.10	20.00	0.04	34.00	17.50	0.04
		67 (19)	46.00	28.20	0.05	41.70	26.10	0.05	36.80	23.70	0.05	31.20	21.20	0.05	25.00	18.60	0.05
		62 (17)	38.30	29.80	0.05	33.80	27.50	0.06	28.90	25.10	0.06	23.80	22.60	0.06	19.90	19.90	0.14
3014 3017	750	72 (22)	49.10	24.00	0.00	45.00	21.90	0.00	40.50	19.70	0.00	35.50	17.40	0.00	30.00	15.00	0.01
		67 (19)	41.20	24.80	0.01	37.00	22.50	0.02	32.40	20.20	0.02	27.40	17.80	0.02	21.90	15.30	0.02
		62 (17)	34.00	25.40	0.02	29.70	23.00	0.02	25.10	20.60	0.02	20.30	18.30	0.02	16.00	16.00	0.06
	1000	72 (22)	59.90	29.10	0.00	55.00	26.70	0.00	49.50	24.10	0.00	43.30	21.30	0.02	36.50	18.40	0.03
		67 (19)	50.40	30.50	0.03	45.30	27.90	0.04	39.70	25.10	0.04	33.50	22.20	0.04	26.70	19.20	0.04
		62 (17)	41.70	31.60	0.04	36.50	28.80	0.04	30.90	26.00	0.04	25.00	23.10	0.05	20.30	20.30	0.10
	1250	72 (22)	68.80	33.40	0.00	63.20	30.70	0.00	56.80	27.80	0.03	49.70	24.70	0.04	41.90	21.40	0.05
		67 (19)	58.00	35.40	0.06	52.20	32.40	0.06	45.70	29.30	0.06	38.50	26.00	0.06	30.60	22.60	0.07
		62 (17)	48.00	37.00	0.07	42.10	33.90	0.07	35.70	30.70	0.07	29.20	27.50	0.07	24.20	24.20	0.14
3617 3621 3717	900	72 (22)	60.30	29.40	0.00	55.40	26.90	0.00	49.90	24.30	0.00	43.80	21.50	0.01	37.00	18.60	0.02
		67 (19)	50.70	30.60	0.02	45.70	27.90	0.03	40.10	25.10	0.03	33.90	22.20	0.03	27.00	19.20	0.03
		62 (17)	41.90	31.50	0.03	36.70	28.70	0.03	31.10	25.80	0.03	25.10	22.90	0.04	20.00	20.00	0.08
	1200	72 (22)	72.40	35.10	0.00	66.50	32.30	0.00	59.90	29.30	0.02	52.50	26.00	0.04	44.30	22.60	0.05
		67 (19)	61.00	37.10	0.05	55.00	34.00	0.06	48.20	30.70	0.06	40.70	27.30	0.06	32.40	23.70	0.06
		62 (17)	50.50	38.80	0.06	44.30	35.50	0.06	37.60	32.10	0.06	30.60	28.70	0.07	25.20	25.20	0.13
	1500	72 (22)	82.20	39.90	0.00	75.60	36.90	0.02	68.10	33.50	0.05	59.70	29.90	0.07	50.40	26.10	0.08
		67 (19)	69.40	42.70	0.08	62.60	39.30	0.08	55.00	35.70	0.08	46.40	31.80	0.09	37.00	27.80	0.09
		62 (17)	57.70	45.10	0.09	50.70	41.40	0.09	43.10	37.70	0.09	35.50	34.00	0.10	29.80	29.80	0.18
4221 4224	1050	72 (22)	75.00	36.40	0.00	69.30	33.70	0.00	62.60	30.60	0.01	55.10	27.40	0.02	46.90	24.00	0.03
		67 (19)	63.30	38.80	0.03	57.20	35.70	0.03	50.50	32.50	0.03	42.90	29.00	0.04	33.50	25.00	0.04
		62 (17)	52.60	40.80	0.04	46.40	37.60	0.04	39.50	34.10	0.04	32.00	30.40	0.05	26.40	26.40	0.14
	1400	72 (22)	87.10	42.50	0.00	80.60	39.50	0.03	73.00	36.20	0.04	64.20	32.50	0.05	54.40	28.60	0.06
		67 (19)	73.80	46.10	0.06	66.90	42.70	0.06	58.90	39.00	0.07	50.10	35.20	0.07	40.00	30.90	0.07
		62 (17)	61.40	49.30	0.07	54.40	45.70	0.07	46.90	42.10	0.07	39.00	38.10	0.09	33.00	33.00	0.19
	1750	72 (22)	96.50	47.40	0.05	89.50	44.30	0.07	81.30	40.80	0.07	71.70	36.90	0.08	60.50	32.60	0.09
		67 (19)	82.10	52.30	0.09	74.60	48.80	0.09	65.90	44.90	0.09	55.90	40.60	0.09	45.10	36.20	0.10
		62 (17)	68.60	56.80	0.10	61.00	53.10	0.10	52.90	49.10	0.10	44.90	44.90	0.12	38.70	38.70	0.24
4821 4824	1200	72 (22)	83.40	40.60	0.00	76.70	37.20	0.00	69.30	33.60	0.00	60.90	29.80	0.01	51.70	25.80	0.02
		67 (19)	70.10	42.30	0.02	63.20	38.60	0.03	55.60	34.80	0.03	47.20	30.80	0.04	37.80	26.60	0.04
		62 (17)	57.90	43.50	0.04	50.90	39.70	0.04	43.20	35.70	0.04	34.90	31.70	0.04	27.70	27.70	0.08
	1600	72 (22)	100.80	48.90	0.00	92.80	45.10	0.00	83.80	40.90	0.01	73.80	36.40	0.04	62.50	31.70	0.05
		67 (19)	84.90	51.70	0.05	76.70	47.40	0.06	67.50	42.90	0.06	57.30	38.10	0.06	45.90	33.20	0.06
		62 (17)	70.40	53.90	0.06	62.00	49.30	0.06	52.60	44.60	0.07	42.80	39.90	0.07	35.00	35.00	0.13
	2000	72 (22)	114.70	55.70	0.00	105.70	51.60	0.00	95.60	47.00	0.05	84.20	42.00	0.07	71.40	36.70	0.08
		67 (19)	97.00	59.50	0.08	87.70	54.90	0.08	77.30	49.90	0.09	65.60	44.60	0.09	52.50	39.00	0.09
		62 (17)	80.60	62.80	0.09	71.00	57.70	0.09	60.50	52.50	0.09	49.60	47.20	0.10	41.30	41.30	0.18
6021 6024	1600	72 (22)	109.20	53.40	0.00	100.00	48.60	0.00	89.90	43.60	0.00	78.60	38.50	0.00	66.40	33.10	0.02
		67 (19)	91.50	55.10	0.02	82.10	50.00	0.03	71.90	44.80	0.03	60.70	39.40	0.03	48.40	34.00	0.03
		62 (17)	75.40	56.30	0.03	65.90	51.00	0.03	55.60	45.70	0.04	44.80	40.40	0.04	35.30	35.30	0.07
	2000	72 (22)	128.00	62.20	0.00	117.20	56.90	0.00	105.20	51.20	0.00	92.00	45.20	0.02	77.50	39.10	0.04
		67 (19)	107.40	64.90	0.04	96.40	59.10	0.04	84.30	53.00	0.05	71.10	46.80	0.05	56.60	40.50	0.05
		62 (17)	88.60	66.90	0.05	77.50	60.80	0.05	65.30	54.60	0.05	52.70	48.50	0.06	42.40	42.40	0.11
	2400	72 (22)	144.20	70.00	0.00	132.10	64.20	0.00	118.50	57.90	0.01	103.60	51.20	0.04	87.20	44.30	0.06
		67 (19)	121.20	73.60	0.06	108.80	67.20	0.06	95.10	60.40	0.07	80.10	53.50	0.07	63.70	46.40	0.07
		62 (17)	100.10	76.40	0.07	87.50	69.60	0.07	73.80	62.70	0.07	59.80	56.00	0.08	48.90	48.90	0.14

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6121	1600	72 (22)	133.10	65.29	0.00	124.38	61.09	0.00	114.12	56.35	0.00	102.04	51.04	0.00	87.92	45.18	0.00
		67 (19)	112.92	69.55	0.00	103.56	64.81	0.00	92.62	59.52	0.00	79.80	53.65	0.00	64.92	47.24	0.00
		62 (17)	94.29	73.16	0.00	84.32	67.90	0.00	72.85	62.14	0.00	59.93	55.91	0.00	48.98	48.98	0.00
	2000	72 (22)	150.19	73.70	0.00	140.73	69.39	0.00	129.45	64.43	0.00	116.13	58.76	0.00	100.38	52.39	0.00
		67 (19)	127.98	79.99	0.00	117.77	75.03	0.00	105.67	69.38	0.00	91.36	63.01	0.00	74.55	55.91	0.00
		62 (17)	107.36	85.50	0.00	96.47	79.93	0.00	83.81	73.69	0.00	69.74	66.88	0.00	58.70	58.70	0.00
	2400	72 (22)	163.45	80.69	0.00	153.55	76.31	0.00	141.65	71.22	0.00	127.40	65.35	0.00	110.42	58.64	0.00
		67 (19)	139.86	88.99	0.00	129.06	83.92	0.00	116.15	78.06	0.00	100.72	71.35	0.00	82.51	63.78	0.00
		62 (17)	117.85	96.47	0.00	106.33	90.72	0.00	92.96	84.20	0.00	78.33	76.91	0.00	67.38	67.38	0.00

Legend:

CFM – Cubic Ft. per Minute **EWB** – Entering Wet Bulb **LWB** – Leaving Wet Bulb **TC** – Gross Cooling Capacity 1000 Btuh
SHC – Gross Sensible Capacity 1000 Btuh **BF** – Bypass Factor **MBH** – 1000 Btuh

NOTES:

- Contact manufacturer for cooling capacities at conditions other than shown in table.
- Formulas:

$$\text{Leaving db} = \text{entering db} - \frac{\text{sensible heat cap.}}{1.09 \times \text{CFM}}$$

$$\text{Leaving wb} = \text{wb corresponding to enthalpy of air leaving coil (h}_{LWB}\text{)}$$

$$h_{LWB} = h_{EWB} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{CFM}}$$
Where h_{EWB} = enthalpy of air entering coil
- SHC is based on 80°F (27°C) db temperature of air entering the evaporator coil.
Below 80°F (27°C) db, subtract (Correction Factor x CFM) from SHC.
Above 80°F (27°C) db, add (Correction Factor x CFM) to SHC.
- Direct interpolation is permissible. Do not extrapolate.
- Fan motor heat has not been deducted.
- All data points are based on 10°F (-12°C) superheat leaving coil and use of thermostatic expansion valve (TXV) device.
- All units have sweat suction-tube connection and a liquid-tube connection. For 1-1/8-in. system suction tube, 3/4 x 1-1/8-in. suction tube connection adapter is available as accessory.
- The CAPVU coils can be used in any properly designed system using Puron® refrigerant.
- Before using maximum cfm shown in table, check coil static pressure drop to ensure system blower can provide necessary static pressure needed for coil and duct systems.
- Bypass Factor = 0 indicates no psychometric solution. Use bypass factor of next lower EWB for approximation.

BYPASS FACTOR	ENTERING AIR DRY BULB TEMPERATURE °F (°C)					
	79 (26)	78 (26)	77 (25)	76 (24)	75 (24)	Under 75 (24)
	81 (27)	82 (28)	83 (28)	84 (29)	84 (29)	Above 85 (29)
Correction Factor						
0.10	0.98	1.96	2.94	3.92	4.91	Use formula shown below
0.20	0.87	1.74	2.62	3.49	4.36	
0.30	0.76	1.53	2.29	3.05	3.82	

Interpolation is permissible.

Correction Factor = 1.09 x (1 - BF) x (db - 80)

ACCESSORIES

EMPTY COIL CASING ACCESSORY FOR UNCASSED A-COIL

ACCESSORY PART NUMBER	CAPVU NOMINAL COIL SIZES	DIMENSIONS in. (mm.)		
		H	W	D
KCAKC2212ECC	1814, 2414, 3014, 3614	25-7/8 (657)	14-3/16 (360)	20-5/8 (524)
KCAKC2306ECC	2417, 3017, 3617, 4817	33-7/8 (860)	17-1/2 (445)	20-5/8 (524)
KCAKC2404ECC	3621, 4221, 4821, 6021, 6021	33-7/8 (860)	21 (533)	20-5/8 (524)
KCAKC2504ECC	4224, 4824, 6024	33-7/8 (860)	24-1/2 (622)	20-5/8 (524)

COIL STATIC PRESSURE DROP (in. w.c.) PURON® R-410A REFRIGERANT

UNIT SIZE	STANDARD CFM																									
	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200							
1814	Dry																									
	0.079	0.111	0.145	0.186	0.232																					
	Wet																									
2414	0.083	0.116	0.151	0.196	0.243																					
	Dry																									
	0.065	0.091	0.120	0.154	0.194	0.237	0.284																			
2417	Wet																									
	0.066	0.094	0.124	0.161	0.203	0.250	0.301																			
	Dry																									
3014	0.056	0.076	0.097	0.123	0.151	0.182	0.215																			
	Wet																									
	0.060	0.082	0.105	0.132	0.163	0.195	0.231																			
3017	Dry																									
	0.054	0.077	0.102	0.133	0.167	0.206	0.248	0.296	0.347																	
	Wet																									
3617	0.059	0.084	0.111	0.142	0.181	0.223	0.269	0.319	0.375																	
	Dry																									
	0.043	0.059	0.077	0.096	0.119	0.144	0.171	0.201	0.232																	
3621	Wet																									
	0.046	0.063	0.083	0.105	0.130	0.157	0.186	0.219	0.252																	
	Dry																									
3717	0.023	0.036	0.052	0.069	0.089	0.110	0.135	0.160	0.189	0.219	0.251															
	Wet																									
	0.042	0.058	0.076	0.095	0.117	0.142	0.169	0.198	0.231	0.265	0.299															
4221	Dry																									
			0.044	0.056	0.068	0.082	0.099	0.119	0.138	0.161	0.183	0.205	0.233													
	Wet																									
4224			0.058	0.073	0.089	0.106	0.125	0.143	0.165	0.189	0.213	0.239	0.268													
	Dry																									
			0.039	0.049	0.060	0.072	0.085	0.099	0.114	0.130	0.146	0.164	0.182													
4821	Wet																									
			0.054	0.066	0.079	0.092	0.103	0.125	0.142	0.161	0.182	0.202	0.222													
	Dry																									
4824			0.055	0.072	0.089	0.107	0.128	0.150	0.175	0.199	0.228	0.257	0.288	0.321	0.356											
	Wet																									
			0.058	0.075	0.094	0.115	0.136	0.161	0.188	0.217	0.247	0.279	0.313	0.347	0.386											
6021	Dry																									
			0.044	0.056	0.069	0.084	0.100	0.118	0.137	0.159	0.180	0.198	0.222	0.247	0.275											
	Wet																									
6024			0.052	0.065	0.080	0.095	0.112	0.131	0.150	0.171	0.193	0.214	0.241	0.270	0.296											
	Dry																									
			0.075	0.093	0.112	0.133	0.157	0.181	0.206	0.234	0.264	0.294	0.326	0.360	0.396	0.432	0.478									
6121	Wet																									
			0.077	0.095	0.115	0.137	0.159	0.184	0.209	0.238	0.268	0.300	0.334	0.370	0.407	0.444	0.488									
	Dry																									
6121			0.073	0.083	0.095	0.107	0.120	0.136	0.152	0.169	0.184	0.203	0.217	0.238	0.260	0.283	0.307									
	Wet																									
			0.076	0.086	0.098	0.110	0.124	0.140	0.157	0.175	0.193	0.215	0.238	0.261	0.286	0.314	0.342									
6121	Dry																									
			0.111	0.133	0.153	0.163	0.204	0.234	0.262	0.293	0.326	0.366	0.392	0.437	0.480	0.520										
	Wet																									
6121			0.130	0.150	0.183	0.210	0.245	0.280	0.320	0.355	0.400	0.435	0.480	0.525	0.570	0.630										
	Dry																									
			0.130	0.150	0.183	0.210	0.245	0.280	0.320	0.355	0.400	0.435	0.480	0.525	0.570	0.630										