

# **Pasco Basin**

## **Stratigraphic Nomenclature**

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**MASTER**

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## Informal Report

## PASCO BASIN STRATIGRAPHIC NOMENCLATURE

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May 4, 1978

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The enclosed chart represents the stratigraphic nomenclature used by the Waste Isolation Program in the Pasco Basin, Washington as of May 4, 1978.

An attempt has been made to use currently accepted regional nomenclature and symbols for stratigraphic units of member rank. (1-6) Informal nomenclature is used for stratigraphic units of flow and bed rank; this usage is consistent with the Code of Stratigraphic Nomenclature, Article 8, Remark (a). (7)

Note that the first letter of the symbol for members indicates the system and the second letter indicates the member name -- not the formation name. For example, Tp indicates Tertiary System, Pomona Basalt Member. This method permits greater flexibility for avoiding long, complex letter symbols on detailed maps and cross sections showing units below member rank.

It is expected that this terminology will evolve, undergoing changes as additional work is conducted in the Pasco Basin and across the Columbia River Plateau.

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## PASCO

## BASIN

## STRATIGRAPHIC

## NOMENCLATURE

FORMATION		MEMBER	FLOW OR BED	LITHOLOGY			
ALLUVIUM, COLLUVIUM, EOLIAN SEDIMENTS OF HANFORD	c14 Age						
	6,600		MAZAMA ASH	ASH FALL, CRATER LAKE, OREGON			
	12,500		GLACIER PEAK ASH	ASH FALL, GLACIER PEAK, WASHINGTON			
	>12,000		ST. HELENS ASH	ASH FALL, MT. ST. HELENS, WASHINGTON			
GLACIOFLUVIAL SEDIMENTS OF HANFORD	<18,000		TOUCHET SILTS, SANDS, & PASCO GRAVELS	FINE GRAINED FACIES OF GLACIOFLUVIAL DEPOSITS, BEDDED COARSE TO MEDIUM GRAINED FACIES OF GLACIOFLUVIAL DEPOSITS, CUT AND FILL STRUCTURE			
			PALOUSE SOIL	CALCAREOUS SAND, SILT, AND EOLIAN DEPOSITS			
RINGOLD FORMATION			(UPPER) RINGOLD	SILT AND SAND, SOME GRAVEL, FLUVIAL, WELL BEDDED, LOCALLY CAPPED BY CALICHE			
			(MIDDLE) RINGOLD	SAND AND GRAVEL, WELL SORTED, COMPACT BUT VARIABLY CEMENTED			
			(LOWER) RINGOLD	SILT AND CLAY, INTERBEDDED GRAVEL AND SAND, CLAY IS CHARACTERISTICALLY BLUE BUT MAY BE GREEN, BROWN, OR TAN			
GROUP	SUBGROUP	SADDLE MOUNTAINS BASALT	LOWER MONUMENTAL MEMBER 1)	GOOSE ISLAND	N	FORMATION (NOMENCLATURE NOT FORMALIZED)	
			ICE HARBOR MEMBER (Ti)	MARTINDALE	R		
				BASIN CITY	N		
			BUFORD MEMBER 1)	LEVY BED	TUFF AND TUFFACEOUS SANDSTONE		
				WARD GAP FLOW	BASALT, APHYRIC		N-T
			ELEPHANT MOUNTAIN MEMBER (Ter)	ELEPHANT MOUNTAIN FLOW			
				RATTLESNAKE RIDGE MEMBER (Ter)	SANDSTONE, TUFFACEOUS		
			(UNNAMED)	MATTAWA FLOW	BASALT, APHYRIC		N
			POMONA MEMBER (Td)	POMONA FLOW	BASALT, PHYRIC		R
				SELAH MEMBER (Ter)	SANDSTONE, TUFFACEOUS		
				GABLE MOUNTAIN FLOW no. 2	BASALT, LOCALLY PHYRIC		N
				GABLE MOUNTAIN BED	TUFF, DISCONTINUOUS		
				GABLE MOUNTAIN FLOW no. 1	BASALT, LOCALLY PHYRIC		N
				COLD CREEK BED	SANDSTONE, LOCALLY TUFFACEOUS AND CONGLOMERATIC		
			WEISSENFELS RIDGE MEMBER 1)	HUNTZINGER FLOW	BASALT, APHYRIC, COARSELY PHANERITIC, AND VERTICALLY DIFFERENTIATED LOCALLY		N
			ASOTIN MEMBER (Ta)				
			WILBUR CREEK MEMBER (Tw)	WAHLKE FLOW	BASALT, APHYRIC		N
				SILLUSI FLOW			N
			UMATILLA MEMBER (Tu)	UMATILLA FLOW	BASALT, APHYRIC		N
			BASALT	WANAPUM BASALT			MABTON MEMBER (Tema)
	PRIEST RAPIDS FLOW no. 4				R		
	PRIEST RAPIDS FLOW no. 3				R		
PRIEST RAPIDS MEMBER (Tpr)	PRIEST RAPIDS FLOW no. 2	BASALT, APHYRIC			R		
	PRIEST RAPIDS FLOW no. 1				R		
	QUINCY ?						
ROZA MEMBER (Tr)	ROZA FLOW no. 2				T		
	ROZA FLOW no. 1	BASALT, PHYRIC			T		
	SQUAW CREEK MEMBER (Teru)	DIATOMITE					
	SENTINEL GAP FLOW				N		
	SAND HOLLOW FLOW	OTHERS PROBABLY OCCUR			BASALT, LOCALLY PHYRIC (Tfd) APHYRIC (Tf)	N N	
	GINKO FLOW				N		
BASALT	YAKIMA BASALT		VANTAGE MEMBER (Tev)	SANDSTONE			
		ECKLER MOUNTAIN MEMBER 1)					
			MUSEUM FLOW		N		
			ROCKY COULEE FLOW		N		
			FLOW J		N		
			FLOW I		N		
			FLOW H	BASALT, APHYRIC	N		
			FLOW G		N		
			FLOW F		N		
			FLOW E		N		
			FLOW D = UMTANUM (Tsu)		N		
			1 TO 3 "LOW K.D." GRANDE				
	BASALT SEQUENCE OF SCHAWANA (Ts)	FLOW C "GRANDE BASALT FLOWS"	BASALT, APHYRIC	N			
		FLOW D		N			
GRANDE	GRANDE		FLOW A		R		
			AT LEAST 15 FLOWS (CURRENTLY KNOWN ONLY FROM DEEP BOREHOLES)	BASALT, APHYRIC	UNKNOWN		
Age ?							
OLDER COLUMBIA RIVER BASALT GROUP ROCKS							
Age ?							
PRE-COLUMBIA RIVER BASALT GROUP ROCKS INTERPRETED TO EXIST IN LOWER PART OF BOREHOLE RSH-1							

1) MEMBER KNOWN FROM AREAS OUTSIDE THE PASCO BASIN, BUT NOT RECOGNIZED TO DATE WITHIN THE PASCO BASIN.

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