			Formation/Unit			Primary Lithologies		Geologic Conditions	Unit Thickness	Occurrence in Site Area
CENOZOIC	Quaternary	Holocene	Quaternary Marsh deposits			muck and peat; silt, sand and clay		aggradation of Delaware Bay estuary	variable thickness	present over most of the site area in low lying areas
			~~ unconformity ~~~~~~~~~~							
		Pleistocene	DELAWARE		NEW JERSEY	estuarine terrace deposits with coarse to fine sand and pebbles with concentrations of heavy minerals; peat; isolated fluvial deposits?		transgressive and regressive cycles	variable thickness	outcrops in eastern and western portions of the site area
			Delaware Bay Group	Scotts Corners Formation	Cape May Formation					
				~~ unconformity ~~						
				Lynch Heights Formation						
			~~ unconformity ~~~~~~~~~~					regression and erosion		
		Upper Tertiary (Miocene)	Kirkwood Formation			clay silt and sand deposited in two or three marine cycles		polycyclic transgression and regression phases	90 feet at southern portions of site area; pinches out northward	subcrop only
			~~ unconformity ~~~~~~~~~~					regression and erosion		
		Lower Tertiary	Shark River Formation			glauconitic sand and mudstone		low sediment input	70 feet (Reference 2.5.1-17)	subcrop only
			~~ unconformity ~~~~~~~~~~					regression and erosion		
			Manasquan Formation			lower glauconitic member; upper clayey sand to silt member		low sediment input and bioturbation	40 feet (Reference 2.5.1-17)	subcrop only
			~~ unconformity ~~~~~~~~~~					regression and erosion		
			Vincentown Formation			quartz sand to quartz-rich calcareous sand with bryozoians and foraminifera		low sediment input and extreme bioturbation	90 feet (Reference 2.5.1-17)	outcrops in NW site area
			Hornerstown Formation			highly glauconitic sand with distinctive green color			30 feet (Reference 2.5.1-17)	
MESOZOIC	Cretaceous	Upper Cretaceous	Navesink			fossiliferous, clayey glauconitic sand		transgression to midshelf conditions	20 feet (Reference 2.5.1-17)	subcrop only
			Mount Laurel Formation			thinly bedded clays and sands with cross-bedding; thin pebbly sands		regressive pulse; low sediment input	100 feet (Reference 2.5.1-17)	subsurface only
			Wenonah Formation			clayey, silty, slightly glauconitic fine sand				
			Marshalltown Formation			intensely burrowed, very silty fine sand with glauconite		transgression; low sediment input	20 feet (Reference 2.5.1-17)	
			Englishtown Formation			micaceous silt to very fine sand		regressive pulse	25 feet (Reference 2.5.1-17)	
			Woodbury Formation			micaceous, chloritic, silty clay				
			Merchantville Formation			glauconitic sand to micaceous silty clay		transgression and establishment of widespread marine conditions; low sediment rates	120 feet (Reference 2.5.1-17)	
			Magothy Formation			beach and estuarine deposits of cross-bedded sand, with clay and silt layers; some lignite		transition to marine conditions	50 feet, pinches out north of site location (Reference 2.5.1-17)	
			~~ unconformity ~~~~~~~~~~					regression and erosion		
		Lower Cretaceous	Potomac Group (Formation)			white, gray and red interbedded silts, clays, and quartose sand		aggrading alluvial plain; thermal subsidence	800 to 1650 feet (Reference 2.5.1-17)	
			~~ pre-Cretaceous unconformity ~~~~~~~~~~					uplift and erosion		
	Triassic	Upper Triassic	**Basement Complex**					Amalgamation of Pangea followed by rifting to form North America	undetermined	
			Triassic Basin?			Fanglomerates and lacustrine sediments; diabase volcanics				
PRECAMBRIAN? PALEOZOIC?	Proterozoic? Paleozoic?	NeoProterozoic to Silurian?	Carolina Superterrane?	Philadelphia Terrane?		meta mafic to felsic plutons and volcanics with sediments, and ultramafic components	aluminous to quartz-rich schist with interbedded amphibolites (Wissahickon Formation) with ultramafic components; Wilimington Complex felsic to mafic arc complex			

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Part 2, Site Safety Analysis Report

Site Area Stratigraphy

FIGURE 2.5.1-33

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