INTERVAL SHEET

Pagel	·	WWCR 18 VDMR Well No.: 1353		
Date8/27/65		Sample Interv	val: from <u>l¹</u> to_	700
PROP: U.S. Gove	ernment	Total depth_	700	
(Flatwoods Job Corp. Ca COMP: Yeary Drilling Co.		OilGas	Water_XExplorato:	ry
COUNTY: Wise (Co	peburn)	CuttingsX	_CoreOther	
VDMR WELL NO: W-1353		WASHED SAMPLES		
From-To	From-To	From-To	From-To	From-To
0 - $1\frac{1}{2}$ No Smpl $1\frac{1}{2}$ - 10 10 - 22 22 - 33 22 - 42	292 - 301 301 - 311 311 - 321 321 - 331	586 _ 596 596 _ 606 606 _ 616 616 _ 626		
33 - 43	331 - 341	020 - 030	· -	-
43 - 53 53 - 62 62 - 72 72 - 82 82 - 92	341 - 351 351 - 361 361 - 371 371 - 381 381 - 391	636 - 646 646 - 656 656 - 666 666 - 676 676 - 686		-
92 - 102 102 - 112 112 - 122 122 - 132 132 - 142	391 - 401 401 - 406 No Smpl 406 - 416 416 - 426 426 - 436	686 - 696 696 - 700 - -	-	
142 - 152 152 - 162 162 - 172 172 - 182 182 - 192	436 - 446 446 - 456 456 - 466 466 - 476 476 - 484	-		
192 - 202 202 - 212 212 - 222 222 - 232 232 - 242	484 - 494 494 - 506 506 - 516 516 - 526 526 - 536	-	-	-
242 - 252 252 - 262 262 - 272 272 - 282 282 - 292	536 - 546 546 - 556 556 - 566 566 - 576 576 - 586	-		

OWNER:U. S. Forest ServiceVDMR(Flatwoods Job Corps Conservation Center)WWCRDRILLER:YearyTOTALCOUNTY:Wise (Coeburn)

VDMR WELL # 1353 WWCR WELL # 18 TOTAL DEPTH : 700

GEOLOGIC SUMMARY

0-1¹/₂ No sample

Lee Formation $(1\frac{1}{2}-700')$

1¹/₂-10 Conglomerate - cream to pale pink, fine-to coarse-grained angular sand, fragments of quartz pebbles that must have been at least 5 mm in diameter, argillaceous cement, minor muscovite and limonite; trace hornblende and smoky quartz.

10-22 As above (contaminated with abundant mettalic fragments from drill and associated iron oxide stain).

22-33 Sandstone - cream fine to very-coarse-grained, poorly sorted ?, subangular, colorless to milky quartz with minor smoky, and blue quartz, trace lithic grains and mica; argillaceous cement, trace iron stain from drilling tramp iron.

- 33-43 Shale and Sandstone light to medium-gray-brown clay and snale; the sandstone is as above; this sample hardened into lumps in the bag and the sandstone is hidden in the clay.
- 43-53 Ferruginous Shale, Sandstone and Soft Shale orange-brown micaceous shale; pale-orange brown, medium-grained sandstone; medium light-gray soft shale with carbonaceous partings; minor red-brown-siltstone.
- 53-62 Sandstone white, medium-to very-coarse-grained, subangular, argillaceous cement, one-sixth of sample is ferruginous, silty, micaceous shale.

62-72 Sandstone - cream-colored, fine to medium-grained, poorly sorted, argillaceous cement; minor ferruginous shale and carbonaceous shale.

72-82 Sandstone - rosy cream, very-fine-grained, trace coal and mica, very poorly indurated; trace argillaceous cement.

82-92 Sandstone and Shale - very-light-gray, fine-grained, angular, poorly indurated sandstone; medium-light-gray, micaceous fissile shale.

92-102 As above - sandstone is medium grained, better indurated and partly ferruginous.

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102-112 Sandstone - light-brown, fine to coarse-grained, poorly indurated, minor ferruginous and carbonaceous shale; some sand shows authigenic growth.

112-122 As above - minor orange-brown iron stain due to fragments trom drill bit.

122-132 Sandstone - medium-gray-red, medium grained, angular, authigenic quartz growth, poorly indurated, each grain lightly coated with hematite; minor ferruginous oolites; trace biotite and muscovite.

- 132-142 Sandstone light-brown, medium-coarse-grained, authigenic quartz, growth, unconsolidated; trace coal and dark micaceous snale; major tramp iron from drill.
- 142-152 As above no coal.

152-162 Shale - medium-light-gray, fissile, carbonaceous, very micaceous, hard, minor black partings.

162-172 As above - very-minor-coal.

1/2-182 As above - slightly softer.

182-192 As above

192-202 Sandy Shale - medium-light-gray, fissile, micaceous shale with laminae of fine-grained massive micaceous sandstone, mica is very finely crystallized (authigenic ?), tiny pyrite nodules, laminae of coal minor light orange brown weathered shale.

202-212 As above - no pyrite, less coal, some shale very soft, Less orange-brown shale.

212-222 Sandy Shale - medium-light-gray, fine to medium-coarsegrained, bedded fissile, and micaceous; trace coal; the coarser sand shows secondary quartz enlargment; trace orange-brown iron stained shale.

222-232 As above - larger mica flakes.

232-242 As above - fine-grained mica only.

242-252 As above - harder, less coal, minor, poorly sorted lithic saudstone.

252-262 As above

262-272 Shale - medium-gray, fine grained, micaceous in part, minor sand laminae; minor rusted cable wire contamination.

2/2-282 As above - darker, finer-grained, less mica and sand.

282-292 As above

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292-301 Sandy Shale - medium-gray, fine-grained, micaceous; partings and chips of coal; trace pyrite.

- 301-311 Shale and Sandstone medium-gray, fine-grained, micaceous snale; very light-gray, medium-grained, angular sandstone showing authigenic growth, and containes minor lithic fragments, micas, argillaceous cement.
- 311-321 As above more sandstone, less indurated, less shale.
- 321-331 As above less sandstone, better indurated.
- 331-341 Sandstone very-light-gray, coarse grained, angular, and unconsolidated with authigenic quartz growth; minor medium-gray micaceous shale, coal and muscovite.
- 341-351 As above shale shows carbonaceous partings.
- 351-361 As above coarser grained, some of the coal is as disoriented lithic fragments in the sandstone.
- 361-371 As above
- 371-381 Sandstone, Shale and Coal very light gray, fine to medium-gray, micaceous angular, poorly indurated, sandstone; medium-gray, fissile micaceous shale; thin seams of coal.
- 381-391 As above some sandstone is darker, less shale and coal.
- 391-401 As above dark shale fragments as grains in sandstone; trace pyrite.
- 401-406 No sample
- 406-416 Sandstone light-to medium-gray, angular, micaceous, partings of medium-dark fissile, micaceous shale and coal; minor drill bit contamination and associated iron oxide stain.
- 416-426 Shaly Sandstone medium-gray, fine-to medium-grained, micaceous.
- 426-436 Shale and Sandstone medium-gray micaceous shale; and interbedded very-light-gray, fine-to medium-grained sandstone.
- 436-446 Shale medium-dark-gray, micaceous with fine-to mediumgrained sandstone and loose sand.
- 446-456 As above less sand
- 456-466 As above
- 466-476 As above
- 476-484 As above more sandstone laminae.
- 484-494 As above

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494-506 Sandstone - medium-gray, medium-grained, shaley and micaceous, minor carbonaceous material in shale and minor coal.

506-516 Sandy Shale - medium gray to dark-gray, micaceous; minor Light-gray, fine-grained sandstone.

516-526 Sandstone, Shale and Coal - light-gray, fine-to mediumgrained sandstone and minor light-brown sandstone; mediumyray to dark-gray micaceous shale; coal.

526-536 As above - no coal, more sandstone

536-546 Shale - medium and medium-dark-gray, micaceous; minor sandstone laminae.

546-556 As above

556-566 As above - more sandstone, minor carbonaceous slickensides on shale.

566-576 Sandstone and Shale - light gray, fine grained micaceous sandstone, and medium to medium-dark-gray, fissile, micaceous shale, trace of coal.

576-586 As above - less shale, minor iron oxide due to contamination by drill bit.

586-596 As above - more shale, minor coal, no appreciable iron stain.

596-606 Sandstone - light-gray, fine to medium-fine-grained, micaceous, some medium-gray shale laminae with carbonaceous partings; trace coal.

606-616 As above - no coal.

616-626 As above - minor nearly white sandstone, minor iron oxide from the drill bit.

626-636 Sandy Shale - medium and medium-dark gray, micaceous; some Light-gray, fine-grained to medium-fine-grained sandstone; trace coal.

636-646 Sandstone, Shale and Coal - very-light-gray, medium-finegrained sandstone; medium-light to dark-gray, micaceous shale; minor vitreous to fiberous coal.

646-656 Sandstone - very-light-gray, medium grained, angular; minor fine grained sandstone and medium-gray shale laminae; trace coal.

656-666 As above - shale laminae much more carbonaceous, no pure coal; minor iron oxide from drill.

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- 666-676 Sandstone light to medium gray, fine-grained micaceous, minor medium gray shale and trace of coal.
- 676-686 As above slightly more coal.
- 686-696 As above slightly more coal, mostly vitreous.
- 696-700 Shale medium-gray, micaceous, minor laminae vitreous coar and coarse-grained white, angular sandstone.

GEOLOGIC SUMMARY

ROCK UNIT

TIME ROCK UNIT

- $0-l\frac{1}{2}$ No Sample
- $1\frac{1}{2}$ -700 Lee Formation

Pennsylvanian (Pottsville)

Virginia Division of Mineral Resources Hollis N. Walker, Geologist September 30, 1965