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From: "Hinrichs, Gary H" <ghinric@entergy.com>
To: <JRW1@nrc.gov>
Date: 4/30/06 11:14AM
Subject: FW: Revised Well Matrix Table

John, here is the revised listing of wells we discussed last week. As soon as the print is updated we will send that as well. I am expecting it later this week.

From: David Winslow [mailto:dwinslow@gza.com]
Sent: Friday, April 28, 2006 5:22 PM
To: Hinrichs, Gary H
Subject: Revised Well Matrix Table

Revised Well Table

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[.] Ex. 6

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EX. 4

Monitoring Well	Location	Approx. Surface Elevation	Approx. Terminal Elevation	Well Completion	Rationale
MW-101	Southeast of Service Center	137	119	Single Screened Well	Groundwater quality associated with chemical waste storage area
MW-103	East of Maintenance Training Center	143	93	Single Screened Well	Groundwater quality associated with chemical waste storage area
MW-104	Southeast of Maintenance Training Center	140	110	Single Screened Well	Former septic tank and UST release at Maintenance Training Facility
MW-105	Southeast of Maintenance Training Center	136	115	Single Screened Well	Former septic tank and UST release at Maintenance Training Facility
MW-107	West of NEM Laboratory	140	105	Single Screened Well	NEM Laboratory Septic Tank
MW-108		14.5	1.5	Single Screened Well	Investigate petroleum fuel seepage observed at Column S17-13
MW-109	South of IP1-TB	14.5	1.5	Single Screened Well	Investigate petroleum fuel seepage observed at Column S17-13
MW-110	South side of Yard 6, west of Petroleum Storage Tanks	134	105	Single Screened Well	Investigate groundwater quality associated with Tank 11 fuel oil release
MW-111	IP-2 Transformer Yard	19	0	Single Screened Well	Investigate groundwater quality associated with steam observed at diesel generator building
MW-112	North side of Tanks 11 and 12	137	113	Single Screened Well	Investigate groundwater quality associated with Tank 11 fuel oil release and stains at tank 12
U3-1	Southeast side of Discharge Canal	14		Single Screened Well	
U3-2	Southeast side of Discharge Canal	14		Single Screened Well	
U3-3	Southeast side of Discharge Canal	14		Single Screened Well	
U3-4S	West of IP3-TB	14	-13	Single Screened Well	Investigate oil beneath IP3-TB
U3-4D	West of IP3-TB	14	-22	Single Screened Well	Investigate oil beneath IP3-TB
U3-T1	South side of IP3-TB in 5' elevation	5	3.8	Core Hole	Investigate oil beneath IP3-TB
U3-T2	North side of IP3-TB in 5' elevation	5	3.3	Core Hole	Investigate oil beneath IP3-TB

MW-30		51	-10	Waterloo Multilevel	
MW-31		79	-10	Waterloo Multilevel	
MW-32		79	-120	Waterloo Multilevel	
MW-33		19	-15	Open Borehole	Assess migration pathways from IP2-FSP; Assess plume width; Investigate IP2-PAB sump; Tracer test monitoring; potential recovery well.
MW-34		19	-15	Open Borehole	Assess migration pathways from IP2-FSP; Assess plume width; Investigate IP2-PAB sump; Tracer test monitoring; potential recovery well.
MW-35		19	-15	Open Borehole	Assess migration pathways from IP2-FSP; Assess plume width; Investigate IP2-PAB sump; Tracer test monitoring; potential recovery well.
MW-36	In soil backfill just west of east well of IP2-TB and east of Discharge Canal	12	-42	Nested Wells	Assess migration pathways from IP2-FSP; Assess soil backfill as a preferential pathway; Assess hydrogeology of bedrock immediately below the IP-2 Discharge Canal (natural and blasting induced fractures); Assess upward gradients in bedrock; Compare tidal temporal shift to MW-37; assess whether the potential exists for groundwater to migrate into, under, and/or along the IP-2 Discharge Canal (with concrete bottom).
MW-37	IP2-TB - 10 feet west of Discharge Canal (in bedrock outside of concrete backfill)	5	-22	Nested Wells	Assess hydrogeology of bedrock immediately west of the IP2 Discharge Canal; Assess hydraulic communication of bedrock with Discharge Canal (with concrete bottom) and river; Compare tidal temporal shift to MW-36; Assess migration pathways.
MW-38	Groundwater	12	-25	Single Screened Well	Assess potential southerly migration along Discharge Canal
MW-39		99	-120	Waterloo Multilevel	Verify hydraulic effectiveness of curtain drains beneath IP1 to capture IP1-SFP releases; Verify upward gradients in bedrock
MW-40	Parking Lot above Sewage Treatment Plant	80	-120	Nested Wells	Verify upward gradients in bedrock; verify no southerly migration through bedrock fractures south of IP3 operations (southern property boundary).
MW-41		79	-15	Nested Wells	Further verify hydraulic effectiveness of curtain drains beneath IP1 to capture IP1-SFP release and assess potential release from IP3-RWST.
MW-42		79	-15	Nested Wells	Assess potential release from IP2-RWST and Tank P#
MW-43		79	-15	Nested Wells	Assess potential release from IP3-Tank P#
MW-44		79	-15	Nested Wells	Assess westerly travel path from potential IP3-RWST release and provide IP3-FSP flow direction and future IP3-FSP leak detection monitoring
MW-45		79	-15	Nested Wells	
MW-46		18	-15	Nested Wells	Assess potential IP3-PAB Sump releases and provide IP3-FSP flow direction and future IP3-FSP leak detection monitoring
MW-47		79	-15	Nested Wells	Verify no western migration from IP1-FSB past curtain drains
MW-48	South of MW-38	12	-25	Nested Wells	Verify no southerly migration after discharge channel outfall and south of MW-38 (southern property boundary).
MW-49	West side of IP1-Discharge Canal	12	-22	Nested Wells	Similar to MW-37 but for IP1 Discharge Canal (with no concrete bottom).
MW-50	East side of IP1-Discharge Canal	12	-42	Nested Wells	Similar to MW-36 but for IP1 Discharge Canal (with no concrete bottom).
MW-51	Southern property boundary east of MW-40	100	-15	Waterloo Multilevel	Further verify no southerly migration through bedrock fractures south of IP3 operations (southern property boundary).
MW-52	North Side of IP2-TB	200	-185	Waterloo Multilevel	Assess potential preferential pathway along utility conduit.
MW-53	West of MW-42	125	-55	Nested Wells	Evaluate releases from IP-1 and used for tracer test (30 feet off of NSB wall)
MW-55	Southwest corner of IP2-Transformer Yard	73	-55	Nested Wells	Evaluate releases from IP-1 and for tracer test, assess vertical extent of Sr
MW-61	West of MW-49	200	-185	Waterloo Multilevel	Assess westward migration of Sr and Tritium; Assess vertical extent of Sr.
MW-58	Adjacent to MW-109	70	-55	Waterloo Multilevel	Delineate Southward Extent of Sr
MW-59	On West side of Canal across from MW-109	70	-55	Waterloo Multilevel	Delineate Westward Migration of Sr and Tritium and Assess Influence of Canal
MW-57	Adjacent to Spray Containment Sump	45	-30	Nested Wells	Assess whether Sump is source of Sr or trapping Sr contaminated GW vertical Extent of Sr
MW-63	West of MW-109 close to river	200	-185	Waterloo Multilevel	Assess westward migration of Sr
MW-60	West of MW-52	45	-30	Waterloo Multilevel	Delineate northward and westward extent of Tritium and Sr
MW-54	In Superheater Building north of Spray Containment Sump	45	-30	Nested Wells	In Superheater Building to assess Sr release from IP-1 and from Spray Containment Sump
T1-U1-1	East of MW-42	35	35	Single Screened Well	East of MW-42 to Inject Tracer between Curtain Drain and IP1-FSB
T1-U1-2		44	26	Single Screened Well	Tracer Test
MW-65		80	-10	Waterloo Multilevel	East of IP-1 FSB to provide delineation of Sr and hydrogeology of Site
MW-56	On south side of NSB/Containment Intersection	85	-15	Waterloo Multilevel	
MW-62	On north side of Inlet pipes for IP1-TB	35	-10	Single Screened Well	To assess how inlet pipe trench and potential permeable fill affects groundwater flow and cause migration to the south
B-64	Boring in Southside of IP1-TB	4	11	Boring	To determine if backfill is concrete or soil

Nested Wells = multiple one-inch and two inch wells in same borehole
 Waterloo Multilevel = Soiltest Permanent/Temporary packer System
 Single Screened Well = One two or four inch monitoring well