



February 27, 2015

Mr. Mostafa Mehran  
Arkansas Department of Environmental Quality  
5301 Northshore Drive  
North Little Rock, Arkansas 72118

**Re: Response to ADEQ Correspondence Dated January 26, 2015  
Soil Vapor Monitoring Program and Offsite Shallow Groundwater Investigation –  
Proposed Soil Vapor Monitoring Point and Shallow Groundwater Monitoring Well  
Construction Detail – December 23, 2014  
Whirlpool Corporation  
Fort Smith, Arkansas  
EPA No. ARD042755389  
AFIN No. 66-00048  
CAO LIS 13-202**

Dear Mr. Mehran:

ENVIRON International Corporation (ENVIRON), on behalf of Whirlpool Corporation, is submitting this response to Arkansas Department of Environmental Quality (ADEQ) comments dated January 26, 2015, providing comments on the Offsite Shallow Groundwater Investigation Proposed Construction details – December 2014 (received on January 29, 2015). ADEQ comments are reiterated below followed by ENVIRON's response to each comment.

**ADEQ Comment #1:**

*The Photo Ionization Detector (PID) readings were not included in the well log diagram for Direct Push DP-67. Please correct.*

**ENVIRON Response:** The soil boring log for DP-67 has been revised to include PID readings and is attached.

**ADEQ Comment #2:**

*Please include a table with soil sample analysis results for all DP well log diagrams.*

**ENVIRON Response:** The soil sample results were included in the Fourth Quarter Progress Report submitted to ADEQ on February 12, 2015. The table containing the soil sample results is attached.

**ADEQ Comment #3:**

*Please lower the completion interval of monitoring well MW-174 approximately one (1) foot to intersect the sandy clay layer interval. This matter was discussed with Wayne Weber.*

**ENVIRON Response:** The interval was adjusted during the field investigation as requested by the ADEQ on site representative David Gillespie. MW-174 is screened from 11 to 12 feet below ground surface.

**ADEQ Comment #4:**

*Please move the completion interval of monitoring well MW-176 up approximately one (1) foot to intersect the silty sand layer interval. This matter was discussed with Wayne Weber.*

**ENVIRON Response:** The interval was adjusted during the field investigation as requested by the ADEQ on site representative David Gillespie. MW-176 is screened from 13 to 14 feet below ground surface.

If you have any questions or comments please contact me at your earliest convenience.

Sincerely,

**ENVIRON International Corporation**



Michael F. Ellis, PE  
Principal

**Attachments**

Soil Boring Log for DP-67

Table 1 - Summary of Offsite Soil Analytical Results



2118 North Tyler Road Building A, Wichita, KS 67212

Site ID: <b>DP-67</b>	Date(s): <b>12/18/2014</b>
Location: <b>Fort Smith, Arkansas</b>	
Logged By: <b>N. Zurweller</b>	
Checked By: <b>K. Stonestreet</b>	
Purpose: <b>Soil Boring</b>	
Datum: <b>NAVD88</b>	Elevation: <b>475.66 ft amsl</b>
North: <b>369226.87</b>	East: <b>591005.61</b>
Borehole Dia.: <b>3 inches</b>	Total Depth: <b>15.0 feet</b>
Project Number: <b>3433244A</b>	
Project Name: <b>Whirlpool Corporation</b>	

Consulting Firm: <b>ENVIRON</b>
Contractor: <b>Walker-Hill</b>
Drilling Method: <b>Sonic</b>
Sampling Method: <b>Sonic</b>
Remarks:

Elevation (ft)	Water Level	Depth (ft)	Recovery (feet)	Sample No.	PID (ppm)	Graphic Log	USCS Code	Material Description
475					0.0		<b>ML</b>	ASPHALT
					0.0			GRAVEL, FILL
		6						CLAYEY SILT, GRAY/BROWN, NON PLASTIC, SLIGHTLY COHESIVE, DRY
470		5			0.1		<b>CL</b>	SILTY CLAY, RED BROWN/GRAY, MOTTLED, ABUNDANT ORGANIC NODULES, FREQUENT GRAVEL, FINE GRAIN, SUB ROUND, STIFF, PLASTIC, MOIST
					0.1			SILTY CLAY, RED BROWN/GRAY, MOTTLED, FREQUENT ORGANIC NODULES, FREQUENT GRAVEL, FINE GRAIN, SUB ROUND, VERY STIFF, PLASTIC, MOIST
		5						SILTY CLAY, RED BROWN/GRAY, MOTTLED, FREQUENT ORGANIC NODULES, FREQUENT GRAVEL, FINE GRAIN, SUB ROUND, VERY STIFF, PLASTIC, MOIST
465		10			0.0			SILTY CLAY, RED BROWN/GRAY, MOTTLED, FREQUENT ORGANIC NODULES, FREQUENT GRAVEL, FINE GRAIN, SUB ROUND, VERY STIFF, PLASTIC, MOIST
					0.3			SILTY CLAY, RED BROWN/GRAY, MOTTLED, FREQUENT ORGANIC NODULES, FREQUENT GRAVEL, FINE GRAIN, SUB ROUND, VERY STIFF, PLASTIC, MOIST
		4			0.3			SILTY CLAY, RED BROWN/GRAY, MOTTLED, FREQUENT ORGANIC NODULES, FREQUENT GRAVEL, FINE GRAIN, SUB ROUND, VERY STIFF, PLASTIC, MOIST
460		15		DP-67 (14.5)				SILTY CLAY, RED BROWN/GRAY, MOTTLED, FREQUENT ORGANIC NODULES, TRACE SAND, STIFF, SLIGHTLY PLASTIC, MOIST
								SILTY CLAY, RED BROWN/GRAY, MOTTLED, FREQUENT ORGANIC NODULES, TRACE SAND, STIFF, SLIGHTLY PLASTIC, MOIST
455		20						SILTY CLAY, RED BROWN/GRAY, MOTTLED, FREQUENT ORGANIC NODULES, TRACE SAND, STIFF, SLIGHTLY PLASTIC, MOIST
450		25						SILTY CLAY, RED BROWN/GRAY, MOTTLED, FREQUENT ORGANIC NODULES, TRACE SAND, STIFF, SLIGHTLY PLASTIC, MOIST

Report: SOIL\_LOG\_REV\_1\_MKE2: File: WHIRLPOOL\_LOGS (JH\_EDITS).GPJ; 1/28/15

**TABLE 1**  
**SUMMARY SOIL ANALYTICAL RESULTS - December 2014**  
 Whirlpool Facility - Fort Smith, Arkansas

Location		DP-63	DP-63	DP-64	DP-65	DP-65	DP-66	DP-67
ENVIRON Sample ID	Remedial Action	DP-63-SL-5.5 FT-20141217	63-SL-10.5 FT-20141217	L-14.5 FT-20141217	L-14.0 FT-20141217	JP-01-SL-20141217	L-14.5 FT-20141218	L-14.5 FT-20141218
Lab Sample ID	Levels per ADEQ	60184825001	60184825002	60184826001	60184824001	60184824002	60184980001	60184980002
Collection Depth (ft bgs)	RADD Issued	5.5	10.5	14.5	14	14	14.5	14.5
Sample Method	December 2013							
Sample Date		12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/18/2014	12/18/2014
Comments						Field Duplicate		
<b>Volatile Organic Compounds</b>								
Acetone	NE	0.0156 J (0.01)	0.0175 J (0.01)	U (0.01)	U (0.01)	U (0.01)	U (0.01)	U (0.01)
Benzene	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
Bromodichloromethane	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
Bromoform	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
Bromomethane	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
2-Butanone	NE	U (0.005)	U (0.005)	U (0.005)	U (0.005)	U (0.005)	U (0.005)	U (0.005)
Carbon Disulfide	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
Carbon Tetrachloride	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
Chlorobenzene	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
Chloroethane	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
Chloroform	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
Chloromethane	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
Dibromochloromethane	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
1,1-Dichloroethane	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
1,2-Dichloroethane	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
1,1-Dichloroethene	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
cis-1,2-Dichloroethene	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
trans-1,2-Dichloroethene	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
1,2-Dichloropropane	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
1,3-Dichloropropene (total)	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
cis-1,3-Dichloropropene	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
trans-1,3-Dichloropropene	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
Ethyl Benzene	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
2-Hexanone	NE	U (0.01)	U (0.01)	U (0.01)	U (0.01)	U (0.01)	U (0.01)	U (0.01)
4-Methyl-2-pentanone	NE	U (0.005)	U (0.005)	U (0.005)	U (0.005)	U (0.005)	U (0.005)	U (0.005)
Methylene Chloride	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
Styrene	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
1,1,2,2-Tetrachloroethane	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
Tetrachloroethene	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
Toluene	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
1,1,1-Trichloroethane	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
1,1,2-Trichloroethane	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
Trichloroethene	NE	U (0.0025)	U (0.0025)	0.0039 J (0.0025)	0.119 (0.0025)	0.112 (0.0025)	U (0.0025)	0.0025 J (0.0025)
Vinyl Chloride	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)
Xylenes (total)	NE	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)	U (0.0025)

**Notes:**

- All concentrations are presented in mg/kg (ppm).
- Concentrations that exceed the Remedial Action Levels per ADEQ RADD Issued 2013 are double underlined.

**Abbreviations:**

U -- Not Detected.  
 J -- Estimated Concentration.  
 ( ) -- Reporting Limit.  
 RADD -- Remedial Action Decision Document  
 ADEQ -- Arkansas Department of  
 mg/kg -- milligram per kilogram  
 NE -- Not Established.  
 NS -- Not Sampled