



## RCRA FACILITY GROUNDWATER, LEACHATE AND GAS REPORTING FORM

This form must be used as a cover sheet for the notices and reports, identified below as required by: (1) a facility's RCRA interim status closure plan; (2) the RCRA interim status regulations; or (3) a facility's RCRA permit. All reports must be submitted to the Illinois EPA's Bureau of Land Permit Section. This form is for use by Hazardous Waste facilities only. Reporting for Solid Waste facilities should be submitted on a separate form. All reports submitted to the Illinois EPA's Bureau of Land Permit Section must contain an original, plus a minimum of two copies.

**Note:** This form is not to be used with permit or closure plan modification requests. The facility's approved permit or closure plan will state whether the document you are submitting is required as a report or a modification request.

Facility Name: WRB Refining LLC - Wood River Refinery Site ID #: 1191150002  
Facility Address: 900 S. Central Ave; Roxana, IL 62048 Fed ID #: ILD 080 012 305

Check the appropriate heading. Only one heading may be checked for each corresponding submittal. Check the appropriate sub-heading, where applicable. Attach the original and all copies behind this form.

<input type="checkbox"/>	LPC-160 Forms		
	<u>Groundwater</u>		<u>Leachate</u>
<input type="checkbox"/>	Quarterly – Indicate one: 1 2 3 4	<input type="checkbox"/>	Quarterly – Indicate one: 1 2 3 4
	<input type="checkbox"/> Semi-Annual		<input type="checkbox"/> Semi-Annual
	<input type="checkbox"/> Annual		<input type="checkbox"/> Annual
	<input type="checkbox"/> Biennial		<input type="checkbox"/> Biennial

Groundwater Data (without LPC-160 Forms)

<input type="checkbox"/>	Quarterly – Indicate one: 1 2 3 4		
	<input type="checkbox"/> Annual	<input type="checkbox"/> Semi-Annual	<input type="checkbox"/> Biennial

Well Construction Information

- Well Construction Forms, Boring Logs and/or Abandonment Forms
- Well Survey Data (e.g., Stick-up Elevation Data)

Notice of Statistically Significant Evidence of Groundwater Contamination (35 Ill. Adm. Code 724.198)

Notice of Exceedence of Groundwater Concentration Limit (35 Ill. Adm. Code 724.199(h))

Notice of Alternate Source or Error in Sampling Analysis or Evaluation of Groundwater (35 Ill. Adm. Code 724.199(i))

Gas Monitoring Reports

Other (identify) \_\_\_\_\_

Monitoring Well Installation Details  
Flush Mount Monitoring Well Construction Diagram



Project:	West Fenceline - Route 111/Rand Avenue Vicinity			Well ID:	MW-13
Project Location:	Roxana, Illinois	Date Started:	12/1/2010		
Well Location:	WRR West Property	Date Completed:	12/3/2010	Boring ID:	MW-13
Drilling Contractor:	Roberts Environmental Drilling, Inc.	Time Seal Set:	1420	Northing:	791574.95
Driller:	B. Schilling	Type of Rig:	CME 55	Easting:	2321696.95
Consulting Firm:	URS Corporation	Drilling Method:	HSA (4.25" ID)	Elevation Datum:	430.79
Geologist:	E. Fritsch	Completion Zone:			

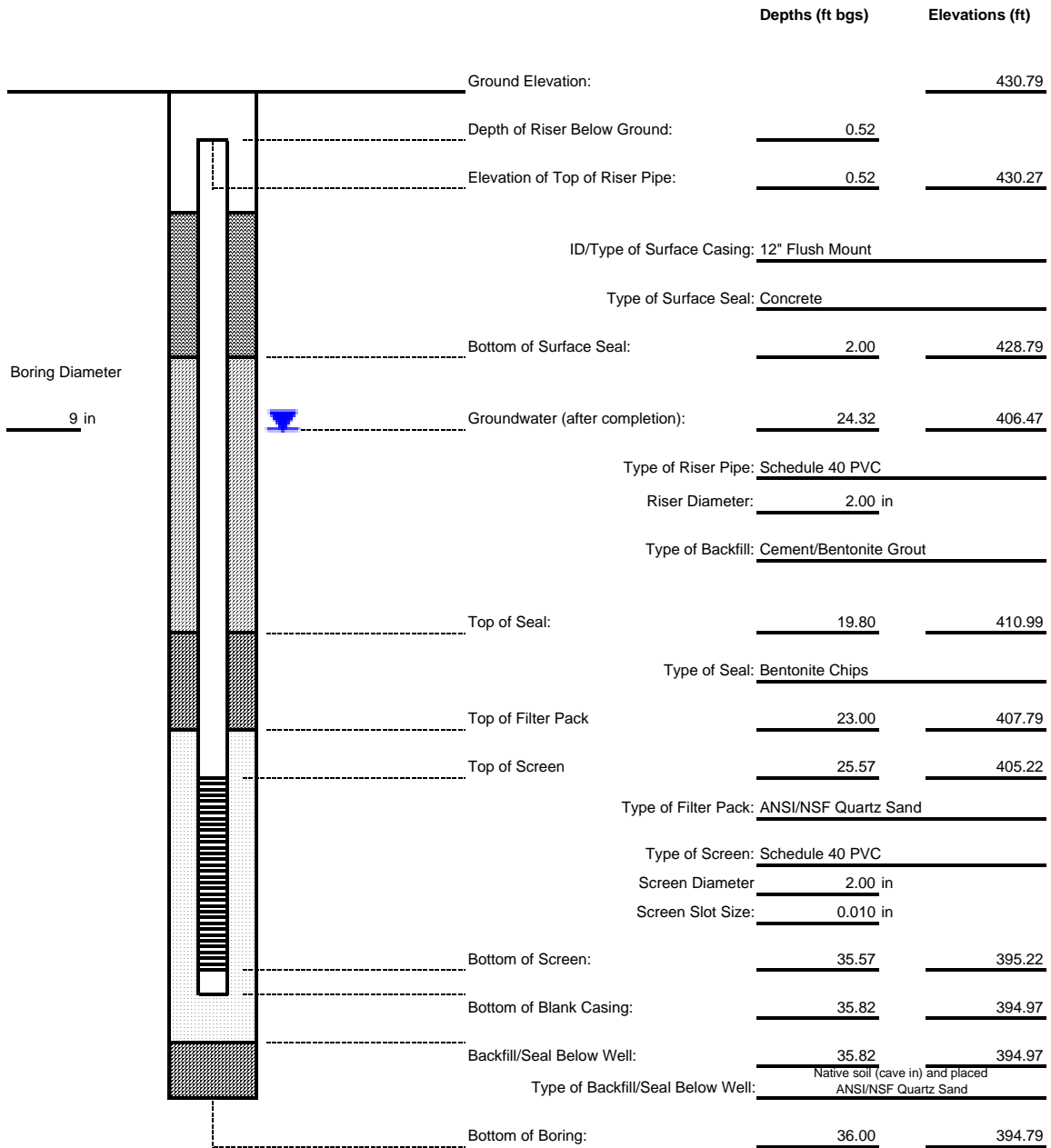


DIAGRAM IS NOT TO SCALE

**LOG OF BORING  
MW-13**

Starting Date: 12/1/10  
 Completion Date: 12/3/10  
 Casing Elevation: 430.27  
 Ground Elevation: 430.79  
 Quadrangle Sec: 34.00  
 T: T15N  
 R: R9W  
 UTM (or State Plane) Coord  
 N: (X): 791574.95  
 E: (Y): 2321696.95

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION		NOTES
								DESCRIPTION	NOTES	
5							FILL	White crushed limestone gravel	Borehole advanced to depth of 10' via air knife to clear utilities. Soil cuttings from air knife were used to log the upper portion of the borehole.	
							FILL	Soft, moist, dark gray, medium plastic, Silty CLAY (CL), with gravel  With cinders, bricks, rocks		
10	24	15	0 1 2 3	11.9			CL	Soft, moist, dark gray, Silty CLAY (CL),  Becomes medium stiff, with olive gray mottling		
	24	15	1 3 4 4	20.6			CL	Increasing silt		
15	24	24	2 2 3 5	2.7			CL	Increasing silt		
	24	10	3 5 7 9	0.7			SC/SM	Medium dense, moist, dark gray, Clayey SAND (SC), to Silty SAND (SM)		
20	24	15	4 4 6 8	2.5			SP	Loose to medium dense, moist, dark gray, poorly graded SAND (SP)		
	24	12	5 6 8 7	258			SM	Medium dense, moist, brownish yellow, Silty SAND (SM)	Petroleum-like odor	
	24	20	0 0 1 4	5.1			ML	Very soft, moist, dark gray, Clayey SILT (ML)		
			3 5				SP	Medium dense, wet, dark gray, poorly graded, medium grained SAND (SP)		

Completion Depth: 36.00 Ft bgs  
 Project No.: 21562291  
 Project Name: Route 111/Rand Avenue Vicinity  
 Drilling Contractor: Roberts Environmental Drilling, Inc.  
 Driller Name: Brian Schilling  
 Drilling Method: HSA 4.25" ID  
 Drill Rig Type: CME 55  
 Logged by: E. Fritsch  
 County: Madison  
 Site ID No.: 1191150002  
 Federal ID No.: ILD080012305

Water Depth: 24 ft., After ATD hrs.  
 Water Depth: \_\_\_\_\_ ft., After \_\_\_\_\_ hrs.  
 Water level at time of drilling  
 Water level after drilling  
 ATD - At time of drilling  
 NE - None Encountered  
 NA - Not Applicable  
 Geoprobe Macro Sampler  
 Air Knife/Hand Auger Sampler  
 Air Rotary  
 3" Clear Acetate Liner  
 Splitspoon Sampler  
 Hollow Stem Auger-  
 Soil samples not collected



USC based on field visual observations

URS (ENVIRON) LOG (EPA FORMAT) 21562291.GPJ URSSTLEV.GDT 12/22/10

**LOG OF BORING  
MW-13**

Starting Date: 12/1/10  
 Completion Date: 12/3/10  
 Casing Elevation: 430.27  
 Ground Elevation: 430.79  
 Quadrangle Sec: 34.00  
 T: T5N  
 R: R9W  
 UTM (or State Plane) Coord  
 N: (X): 791574.95  
 E: (Y): 2321696.95

Depth In feet	Inches Driven	Inches Recovered	Blow Counts	PID (ppm)	Sampler Graphic	Symbol	USCS
24	16	6	8	6.9			
24	18	8	10	2.6			
24	18	1	5	10.1			
30	16	3	6	10.8			SP
24	12	6	11	2.7			
35	12	20	50	0.1			
35	12	>	50				
40							
45							

DESCRIPTION	NOTES
Same: Medium dense, wet, dark gray, poorly graded, medium grained SAND (SP)	
Trace fine gravel	
Becomes dense to very dense, gravel grades out	
Bottom of boring at 36' bgs	Monitoring well installed. Screened interval based on the ground surface at the time of installation was 25' to 35' bgs. Survey data of the existing ground surface shows the screen interval from 25.57' to 35.57' bgs

URS (ENVIRON) LOG (EPA FORMAT) 21562291.00007.GPJ URSSTLEV.GDT 12/22/10

Completion Depth: 36.00 Ft bgs  
 Project No.: 21562291  
 Project Name: Route 111/Rand Avenue Vicinity  
 Drilling Contractor: Roberts Environmental Drilling, Inc.  
 Driller Name: Brian Schilling  
 Drilling Method: HSA 4.25" ID  
 Drill Rig Type: CME 55  
 Logged by: E. Fritsch  
 County: Madison  
 Site ID No.: 1191150002  
 Federal ID No.: ILD080012305

Water Depth: 24 ft., After ATD hrs.  
 Water Depth: \_\_\_\_\_ ft., After \_\_\_\_\_ hrs.  
 Water level at time of drilling  
 Water level after drilling  
 ATD - At time of drilling  
 NE - None Encountered  
 NA - Not Applicable  
 Geoprobe Macro Sampler  
 Air Knife/Hand Auger Sampler  
 Air Rotary  
 3" Clear Acetate Liner  
 Splitspoon Sampler  
 Hollow Stem Auger-  
 Soil samples not collected



USC based on field visual observations

**GROUNDWATER DEVELOPMENT/SAMPLING DATA SHEET**

PROJECT NAME: West Fenceline - Route 111/Rand Avenue Vicinity PROJECT NUMBER: 21562291.00007  
 DATE: 12/7/10  
 WEATHER: N 20° F Sunny  
 FIELD PERSONNEL: N. Satam, M. Miller  
 MONITORING WELL ID: MW-13

**INITIAL DATA**

Well Diameter: 2 in.  
 Total Depth of Well: 35 (installed) ft bgs  
 Depth to Water: 23.80 ft btoe  
 Height of Water Column: 11.05 ft  
 1 0.163 gallons/ft for 2 inch well, 0.653 gallons/ft for 4-inch well

Gallons/Lin.Ft: 0.163  
 Vol. Of Water Column: 4.180 gallons  
 Min. Purge Volume: 4.0 gallons (5 volumes)  
 Depth to Top of Screen: 25 ft bgs

Water Added during Drilling: 10 gallons  
 Water to be Removed: 50 gallons (5x added)  
 Ambient PID/FID Reading: 0.0 ppm  
 Wellbore PID/FID Reading: \_\_\_\_\_ ppm

**PURGE DATA**

Purge Method: Monsoon Submersible Pump

Purge Volume (gals)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°F)	Cond. (µmhos/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
1.25	1221	23.80	Cloudy	Mmm	6.75	65.20	1126	17.3	1.95	-0.11
1.26	1223	↓	↓	↓	6.76	65.34	1126	70	2.27	-0.11
1.27	1224	↓	clearing	↓	6.75	66.58	1125	36	3.62	-0.11
1.28	1225	↓	↓	↓	6.75	66.46	1118	32	1.87	-0.10
1.29	1226	23.80	↓	↓	6.77	66.05	1140	29	2.40	-0.11

Start Time: 1207 Purge Stop Time: 1226 Elapsed Time: 139 min Total Volume Purged: 130 gallon  
 Average Purge Rate (gallons/min): 2 Well Volumes Purged: 65 Water Quality Meter ID: Troll 9500 Calibrated on: 12/7/10

**SAMPLING DATA**

Sampling Method: \_\_\_\_\_  
 Sample Date: N/A Sample Time: N/A Analysis: N/A

**COMMENTS:**

DTB = 34.85 ft btoe prior to development  
 DTB = 35.30 ft btoe after development

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_