Western Refining
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January 29, 2013

John E. Kieling, Chief
New Mexico Environmental Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Re: Financial Assurance Cost Estimate – January 2013
Per Order No. HWB 07-34 (CO)
Western Refining Southwest, Inc. – Bloomfield Refinery
EPA ID# NMD089416416

Dear Mr. Kieling:

Western Refining Southwest, Inc. - Bloomfield Refinery submits the referenced Financial Assurance Cost Estimate pursuant to Section III.P.2. of the July 2007 HWB Order. The estimate was prepared for Western by RPS, a third party environmental engineering company. Annual adjustments to the Financial Assurance Cost Estimate were made in compliance with the requirements of 40 CRF 264.142(b) and 264.144(b). The adjusted cost estimate reflects the completion of four years of interim measures and facility-wide groundwater monitoring activities.

If you have any questions or would like to discuss the Financial Assurance Cost Estimate, please contact me at (505) 632-4171.

Sincerely,

James R. Schmaltz
HSER Director
Western Refining Southwest, Inc.
Bloomfield Refinery

cc: D. Cobrain – NMED HWB
C. Chavez – NMOCD (w/attachment)
L. Tsinnajinnie – NMED HWB
R. Weaver – Bloomfield Refinery
K. Robinson – Bloomfield Refinery
A. Hains – Western Refining El Paso

RPS

Cielo Center, 1250 South Capital of Texas Highway, Building Three, Suite 200, Austin, Texas 78746, USA
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January 29, 2013

Mr. James R. Schmaltz
Environmental Manager
Western Refining Company
P.O. Box 159
Bloomfield, NM 87413

Re: Western Refining Southwest, Inc. Bloomfield; Order No. HWB 07-34 (CO)
Financial Assurance Cost Estimate Update for 2013

Dear Randy:

This financial assurance cost estimate update for the Bloomfield Refinery includes costs to address:

1. those activities specified in Section III.P.1. of Order No. HWB 07-34 (CO) that was issued by the New Mexico Environment Depart on September 27, 2007; and

2. implementation of the Final Closure Plan for Interim Status Unit No. 1 - North and South Aeration Lagoons.

The annual inflation factor used is that value available at the time the revised cost estimate is required for the Order (i.e., January 31, 2013). It is derived as follows:

> Implicit price deflator for 2011/implicit price deflator for 2010 (updated 12/20/2012) = 113.355/110.992 = 2.1% [source - http://www.bea.gov (Table 1.1.9 Implicit Price Deflators for GDP)]

The cost estimate for the Order was prepared in accordance with 40 CFR 264.101 and substantially in compliance with the requirements of 40 CFR 264.142 and 264.144. The costs were revised to reflect recent changes in the requirements of the Facility-Wide Groundwater Monitoring Plan (dated June 2012) and annual adjustments were made from the cost estimate provided in January 2011 pursuant to Section III.P.2 of the Order. The current total estimated cost is $708,219. A detailed breakout of the estimate by activity is provided in enclosed Tables 1, 1A, 1B, 1C, and 1D.

The cost estimate for implementation of the Final Closure Plan for Interim Status Unit No. 1 – North and South Aeration Lagoons was prepared in accordance with 40 CFR 265.142. An annual adjustment was made from the cost estimate provided in the Final Closure Plan dated May 2010 (revised January 2011) and approved May 20, 2011. The current total estimated cost

is $334,937 [2012 estimate of $328,048 increased by 2.1%]. A detailed breakout of the estimate by activity is provided in enclosed Tables 2 and 2A.

The total estimated cost for 2013 is $1,043,156. If there are any questions, please contact me at (512) 347-7588.

Sincerely,

RPS

Scott T. Crouch, P.G.
Senior Consultant

STC/cks

Enclosures

cc: Allen Hains – Western Refining El Paso

Western Refining Southwest, Inc.
Bloomfield, New Mexico Refinery
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate
1/29/2013

Waste Management Area	NMED Order Provision	Capital Costs[1]	Operation & Maintenance Costs[2]	NMED Review Fees	Total Costs	Explanation
Solid Waste Management Units (SWMU's) Investigation, Remediation, & associated reports						
Group 1						
Interim Status Unit No. 1: North & South Aeration Lagoons - Closure Plan Implementation	IV.B.5	$0	$0		$0	Project completed
Remedy Completion Report	VI.D.6			$0	$0	
				subtotal	$0	
Group 2						
SWMU No. 2: Drum Storage Area - North Bone Yard	IV.B.6	$0	$0		$0	
SWMU No. 8: Inactive Landfill	IV.B.6	$0	$0		$0	
SWMU No. 9: Landfill Pond	IV.B.6	$0	$0		$0	
SWMU No. 11: Spray Irrigation Area	IV.B.6	$0	$0		$0	
SWMU No. 18: Warehouse Yard	IV.B.6	$0	$0		$0	
Corrective Measures Implementation Plan	VI.D.2			$0	$0	
Progress Report	VI.D.5			$0	$0	
Remedy Completion Report	VI.D.6			$0	$0	
				subtotal	$0	
Group 3						
SWMU No. 4: Transportation Terminal Sump	IV.B.6	$0	$0		$0	
SWMU No. 5: Heat Exchanger Bundle Cleaning Area & AOC No. 25: Auxiliary Warehouse and 90-day Storage Area	IV.B.6	$0	$0		$0	
AOC No. 22: Product Loading Rack & Crude Receiving Loading Racks	IV.B.6	$0	$0		$0	
AOC No. 23: Southeast Holding Ponds	IV.B.6	$0	$0		$0	
AOC No. 24: Tank Areas 41 and 43	IV.B.6	$0	$0		$0	
AOC No. 26: Tank Area 44 and 45	IV.B.6	$0	$0		$0	
Corrective Measures Implementation Plan	VI.D.2			$0	$0	
Progress Report	VI.D.5			$0	$0	
Remedy Completion Report	VI.D.6			$0	$0	
				subtotal	$0	

Western Refining Southwest, Inc.
Bloomfield, New Mexico Refinery
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate
1/29/2013

Waste Management Area	NMED Order Provision	Capital Costs[1]	Operation & Maintenance Costs[2]	NMED Review Fees	Total Costs	Explanation
Group 4						
SWMU No. 7 Raw Water Ponds	IV.B.6	$0	$0		$0	
SWMU No. 10: Fire Training Area	IV.B.6	$0	$0		$0	
SWMU No. 16: Active Landfill	IV.B.6	$0	$0		$0	
Corrective Measures Implementation Plan	VI.D.2			$0	$0	
Progress Report	VI.D.5			$0	$0	
Remedy Completion Report	VI.D.6			$0	$0	
				subtotal	$0	
Group 5						
SWMU No. 15: Tank Farm Area	IV.B.6	$0	$0		$0	
Corrective Measures Implementation Plan	VI.D.2			$0	$0	
Progress Report	VI.D.5			$0	$0	
Remedy Completion Report	VI.D.6			$0	$0	
				subtotal	$0	
Group 6						
AOC No. 19: Seep North of MW-45	IV.B.6	$0	$0		$0	
AOC No. 20: Seep North of MW-46	IV.B.6	$0	$0		$0	
AOC No. 21: Seep North of MW-47	IV.B.6	$0	$0		$0	
Corrective Measures Implementation Plan	VI.D.2			$0	$0	
Progress Report	VI.D.5			$0	$0	
Remedy Completion Report	VI.D.6			$0	$0	
				subtotal	$0	
Group 7						
SWMU No. 17: River Terrace Area	IV.B.6	$0	$0		$0	
Corrective Measures Implementation Plan	VI.D.2			$0	$0	
Progress Report	VI.D.5			$0	$0	
Remedy Completion Report	VI.D.6			$0	$0	
				subtotal	$0	

Western Refining Southwest, Inc.
Bloomfield, New Mexico Refinery
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate
1/29/2013

Waste Management Area	NMED Order Provision	Capital Costs[1]	Operation & Maintenance Costs[2]	NMED Review Fees	Total Costs	Explanation
Group 8						
SWMU No. 3: Underground Piping Currently in Use	IV.B.6	$0	$0		$0	
SWMU No. 6: Abandoned Underground Piping	IV.B.6	$0	$0		$0	
Corrective Measures Implementation Plan	VI.D.2			$0	$0	
Progress Report	VI.D.5			$0	$0	
Remedy Completion Report	VI.D.6			$0	$0	
				subtotal	$0	
Group 9						
SWMU No. 13; Process Area	IV.B.6	$0	$0		$0	
SWMU No. 14: Tanks 3, 4, and 5	IV.B.6	$0	$0		$0	
SWMU No. 12: API Separator	IV.B.6	$0	$0		$0	
Corrective Measures Implementation Plan	VI.D.2				$0	
Progress Report	VI.D.5				$0	
Remedy Completion Report	VI.D.6				$0	
				subtotal	$0	
Other Areas						
To be determined?	III.Q.1	$0	$0		$0	Section III.G.2 of the NMED Order specifies that either NMED or Western may identify additional areas for corrective action. At this time, no additional areas have been identified.
Corrective Measures Implementation Plan	VI.D.2				$0	
Progress Report	VI.D.5				$0	
Remedy Completion Report	VI.D.6				$0	
				subtotal	$0	

Western Refining Southwest, Inc.
Bloomfield, New Mexico Refinery
NMED Order No. HWB 07-34 (CO) -- Financial Assurance Cost Estimate
1/29/2013

Waste Management Area	NMED Order Provision	Capital Costs[1]	Operation & Maintenance Costs[2]	NMED Review Fees	Total Costs	Explanation
Interim Measures & Facility Wide Ground Water Monitoring						
River Terrace Area Analytical	V.B.1		$16,060		$16,060	1 yr. Monitoring @$16,060/yr - see detail Table A
River Terrace Annual Report	V.B.1		$3,500	$2,000	$5,500	1 yr. reporting @$3,500/annual report & NMED fees of $2,000/annual rpt
River Terrace Operation & Maintenance	III.P.1 & V.B.		$8,000		$8,000	GAC filters & maintenance $8,000/yr x 1 yr
North Barrier Wall collection operations	III.P.1		$0		$0	Bi-weekly fluid level measurements terminated in 2012 per NMED approval
Facility Wide Ground Water Monitoring (including North Barrier Wall & Tank Farm) analytical costs	IV.A.		$463,000		$463,000	Table B provides detailed cost on a annual basis ($46,300) which is multiplied by 10 years pursuant to the Order.
Facility-Wide Annual Monitoring Report (including North Barrier Wall)	IV.A.2.		$70,000	$20,000	$90,000	10 yrs. Monitoring @ $7,000/annual report & NMED fees of $2,000/annual rpt
1# East Outfall	V.C.		$0		$0	Sampling is no longer conducted at this location as the dicharge goes directly to the API Separator.
San Juan River samples			$78,740		$78,740	See Table C for detailed estimate; assume 10 years @$7,874/yr
RCRA Background Monitoring Wells			$32,352		$32,352	See Table D for detailed estimate; assume 2 additional years monitoring at background wells
				subtotal	**$693,652**	
TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER (without inflation costs)					**$693,652**	
Inflation Factor [3]					**2.10%**	
CURRENT TOTAL ESTIMATED COSTS TO IMPLEMENT NMED ORDER.					**$708,219**	

1- capital costs associated with construction, installation, pilot testing, evaluation, permitting, and reporting of the effectiveness of the alternative
2 -continuing costs associated with operating, maintaining, monitoring, testing, and reporting on the use and effectiveness of the technology
3- Implicit price deflator for 2011/implicit price deflator for 2010 (updated 12/20/2012) = 113.355/110.992 = 2.1% http://www.bea.gov (Table 1.1.9 Implicit Price Deflators for GDP)

TABLE A
RIVER TERRACE SAMPLING COST ESTIMATE

Analysis	Frequency	# of Sample Locations	Total # of Samples [1]	Cost/Sample	Cost per Year
RIVER TERRACE - AQUEOUS					
8021B	High Flow / Low Flow	7	20	$45	$900
8021B	Bi-Annually	7	10	$45	$450
8015B (GRO, DRO)	High Flow / Low Flow	7	18	$75	$1,350
8015B (GRO, DRO)	Bi-Annually	7	10	$75	$750
6010B (metals)	High Flow / Low Flow	7	18	$50	$900
6010B (metals)	Bi-Annually	7	10	$50	$500
Level 4 Data Packet	each event		2	$300	$600
RIVER TERRACE - Vapor					
8021B	Low Flow	9	9	$45	$405
8021B	High Flow	14	14	$45	$630
8015B (GRO)	Low Flow	9	9	$75	$675
8015B (GRO)	High Flow	14	14	$75	$1,050
Tedlar Bags	Annually	23	23	$10	$230
Level 4 Data Packet	High Flow / Low Flow		2	$400	$800
GAC Breakthrough Sampling					
8260	Quarterly	3	12	$70	$840
8015B (GRO, DRO)	Quarterly	3	12	$90	$1,080
Level 4 Data Packet	each event		4	$120	$480
				Annual analytical costs	$11,640
River Terrace labor High Flow & Low Flow events -- 28 hours X $65/hr per event					$3,640
River Terrace labor GAC sampling events -- 12 hours X $65/hr					$780
				Total Annual River Terrace Sampling Costs	$16,060

River terrace sampling conducted pursuant to June 2012 Facility-Wide Groundwater Monitoring Plan (Section 5.4) and Bioventing Monitoring Plan (Revised) River Terrace Voluntary Corrective Measures dated October 28, 2005

1 - Includes additional QA/QC samples

TABLE B

Facility-Wide Groundwater Monitoring Cost Estimate

Analysis	Frequency	# of Sample Locations	# of Samples (2)	Cost/Sample	Cost per Year
Annual Refinery Complex (Non-RCRA Wells)					
8260B	Annual	32	42	$115	$4,830
8015B (GRO, DRO)	Annual	32	39	$75	$2,925
8270C	Annual (1)	3	2	$280	$560
CO2/Alkalinity (310.1)	Annual	32	39	$15	$585
Cation Anion Balance + Diss Metals	Annual	32	39	$229	$8,931
RCRA 8 Metals	Annual	32	39	$100	$3,900
Filters			39	$12	$468
Level 4 Data Packet	Annual		1	$3,500	$3,500
Annual Refinery Complex (RCRA Investigation Wells)					
8260B	Annual	5	5	$115	$575
8015B (GRO, DRO)	Annual	5	5	$75	$375
8270C	Annual	5	5	$280	$1,400
CO2/Alkalinity (310.1)	Annual	5	5	$15	$75
Cation Anion Balance + Diss Metals	Annual	5	5	$229	$1,145
RCRA 8 Metals	Annual	5	5	$100	$500
Filters			5	$12	$60
Level 4 Data Packet	Annual		1	$180	$180
Semi-Annual - Refinery Complex (Non-RCRA Wells)					
8260B	Semi-Annual (3)	11	14	$45	$630
8015B (GRO, DRO)	Semi-Annual (3)	5	7	$75	$525
Level 4 Data Packet	Semi-Annual (3)		1	$200	$200
Semi-Annual - North Barrier Wall OW/CW					
8260B	Semi-Annual	16	38	$45	$1,710
8015B (GRO, DRO)	Semi-Annual	16	35	$75	$2,625
Level 4 Data Packet	Semi-Annual		1	$200	$200
Semi-Annual River Bluff (Outfall 2 & 3, & Seeps 1, 6, 7, 8, & 9)					
8260B	Semi-Annual	7	19	$45	$855
CO2/Alkalinity (310.1)	Semi-Annual	7	17	$15	$255
Cation Anion Balance + Diss Metals	Semi-Annual	7	17	$229	$3,893
RCRA 8 Metals	Semi-Annual	2	5	$100	$500
Filters			4	$12	$48
Level 4 Data Packet	Semi-Annual		2	$150	$300
Sampling Labor	Semi-Annual & Annual events		10 Days of 7 hour days	$65/hour	$4,550
Total Annual - Facility-Wide Groundwater Sampling & Analysis					$46,300

Sampling conducted pursuant to June 2012 Facility-Wide Groundwater Monitoring Plan

1 - The SVOC analyses are performed every two years and the "# of samples" is adjusted accordingly

2 - # of Samples includes additional QA/QC samples

3 - This reference to semi-annual only includes a single event, as these locations are also included in the annual category

TABLE C

San Juan River Sampling Cost Estimate

Analysis	Frequency	# of Sample Locations	# of Samples [1]	Cost/Sample	Cost per year
8260B	Semi-Annual	4	14	$45	$630
8015B (GRO, DRO)	Semi-Annual	4	12	$75	$900
CO2/Alkalinity (310.1)	Semi-Annual	4	12	$15	$180
Cation Anion Balance + Diss Metals	Semi-Annual	4	12	$229	$2,748
RCRA 8 Metals	Semi-Annual	4	12	$100	$1,200
Filters			8	$12	$96
Level 4 Data Packet	Semi-Annual		2	$800	$1,600
				Annual analytical costs	$7,354
Sampling Labor	Semi-Annual		4 hours each event	$65/hour	$520
				Total Annual San Juan River Sampling Costs	$7,874

Sampling pursuant to June 2012 Facility-Wide Groundwater Monitoring Plan
1 - # of Samples includes additional QA/QC samples

TABLE D

RCRA Background Monitoring Wells

Analysis	Frequency	# of Sample Locations	# of Samples [1]	Cost/Sample	Cost per year
Extended metals list and general water quality parameters	Quarterly	2	12	$1,100	$13,200
Filters			8	$12	$96
Level 4 Data Packet	Semi-Annual		2	$400	$800
				Annual analytical costs	$14,096
Sampling Labor	Quarterly		8 hours each event	$65/hour	$2,080
				Total Annual San Juan River Sampling Costs	$16,176

1 - Extra QA/QC sample collected on events that do not coincide with RCRA semi-annual sampling events
Sampling pursuant to Investigation Work Plan - Background Concentrations (revised February 2011)

TABLE 2
Final Closure Cost Estimate
Western Refining - Bloomfied Refinery
North and South Aeration Lagoons
May 14, 2012

Item	Description	Quantity	Units	Unit Cost	Cost
	Professional Services				
1	Analyses for waste characterization & investigation/soil confirmation sampling (Table 2)	1	LS	$140,000	$140,000
2	Final closure report	1	LS	$20,000	$20,000
3	Project administration (engineering, bidding, construction administration, etc.)	1	LS	$18,700	$18,700
	Construction				
5	Mobilization	1	LS	$6,200	$6,200
6	Administrative costs (office facilities & staff, H&S plan, SWPPP, insurance, eqpmt decon, QA/QC, etc.)	1	LS	$12,500	$12,500
7	Dewater lagoons (1 ft water over 25,092 sq. ft.) Dispose water at authorized on-site discharge	188,000	Gal	$0.011	$2,100
8	Excavate and load sludge from aeration lagoons for disposal at local NMED permitted landfill. (1)	310	CY	$4	$1,200
9	Transfer sludge from aeration lagoons to local NMED permitted landfill. (2)	403	CY	$12.5	$5,000
10	Dispose of sludge at local landfill as Special Waste	403	CY	$16.5	$6,600
11	Remove and dispose of RCRA liners at local landfill (3)	1	LS	$5,340	$5,300
12	Remove and dispose of non-RCRA composite geotextile/geonet layer and 100 mil liner at local landfill; stockpile cemented amended sand (4) (5)	1	LS	$7,780	$7,800
13	Transport and dispose of cemented amended sand at local NMED permitted landfill as special waste (5)	605	CY	$29	$17,500
14	Excavate upper two feet of soils across all lagoons (6)	1,859	CY	$5	$9,300
15	Transport and dispose of excavated soils at local landfill as Special Waste	2,416	CY	$29	$70,100
16	Demobilization	1	LS	$2,500	$2,500
	TOTAL				**$324,800**
	Inflation Factor (7)	0.01%			$3,248
	CURRENT TOTAL ESTIMATED COST TO IMPLEMENT CLOSURE PLAN				**$328,048**

Notes

1 Assumed dried sludge in-place volume = 25,092 sq. ft. x 0.333ft = 310 cy (special waste). Estimated truck yards = 310 cy x 1.3 (fluff) = 403 cy. Estimated excavation cost = $4/cy

2 Estimated transportation cost to NMED permitted landfill in Aztec, NM = $12.50/cy ($125/hr @ 2hrs per trip & 20 yd. truck)

3 Assume three 20-yd trucks @ $16.50/cy; $750 transporation & 72 hours labor @ $50/hr = $5,340

4 Assume four 20-yd trucks @ $16.50/cy, $1,000 transporation, 72 hours labor @ $50/hr, & stockpile cemented amended sand ($4/cy x 465 cy) = $7,780

5 Estimated in-place volume of cemented amended sand = 25,092 sq. ft. x .5 ft. x 1.3 = 465 cy. Estimated truck yards = 465 cy x 1.3 (fluff) = 605 cy

6 Estimated in-place volume of excavated soils beneath lagoons = 25,092 sq.ft. x 2 ft. = 1,859 cy. Estimated truck yards = 2,203 cy x 1.3 (fluff) = 2,416 cy

7 Implicit price deflator for 2010/implicit price deflator for 2009 (updated 12/22/2011) = 110.992/109.729 = 1.01% http://www.bea.gov (Table 1.1.9 Implicit Price Deflators for GDP)

LS - Lump Sum
CY - cubic yard
Gal - gallon

TABLE 2A
Investigation & Confirmation Sampling Cost Estimate
Western Refining - Bloomfied Refinery
North and South Aeration Lagoons

Analysis	# of Samples	Cost/Sample	Costs
Waste Characterization Samples [1]			
VOCs 8260B	155	$90	$13,950
TCLP SVOCs 8270C	155	$220	$34,100
Haz. Characteristics	155	$140	$21,700
TCLP Skinner List Metals	155	$185	$525
Sampling Labor	40 hours	$75/hour	$3,000
		Subtotal	**$73,275**
Investigation/Confirmation Samples [2]			
VOCs 8260B	87	$90	$7,830
SVOCs 8270C	87	$220	$19,140
TPH 8015B (GRO, DRO, MRO)	87	$90	$7,830
Skinner List Metals	87	$185	$16,095
Sampling Labor	40 hours	$75/hour	$3,000
Subcontract drilling			$12,000
		Subtotal	**$65,895**
		Total	**$139,170**

1 - sludge samples (25,092 sq. ft. x .33 ft. = 310 yds / 20 yds/sample) = 16 samples; cement amended sand samples (25, 092 sq. ft. x .5 ft = 465 yds / 20 yds/sample) = 24 samples; excavated soil samples (25,092 sq. ft. x 2 ft. x 1.2 (fluff factor) / 27 (cu. ft/yd.) = 2,230 yds / 20 yds/sample) = 112 samples; potential leachate samples (RCRA liner, non-RCRA liner & French drain) = 3 samples; estimated total of 155 characterization samples

2 - assumes two samples (0-6" & 18-24") at each of 15 soil borings & 15 sidewall samples, one additional sample (lower interval) at each of the 15 soil borings, seven duplicate samples, and five equipment blanks

TPH - total petroleum hydrocarbons

GRO - Gasoline Range Organics
DRO - Diesel Range Organics
MRO - Motor Oil Range Organics
VOCs - volatile organic compounds
SVOCs - semi-volatile organic compounds