



## Western Refining Southwest LLC

A subsidiary of Marathon Petroleum Corporation  
I-40 Exit 39  
Jamestown, NM 87347

March 15, 2023

Mr. Dave Cobrain, Chief  
New Mexico Environmental Department  
2905 Rodeo Park Drive East, Bldg. 1  
Santa Fe, NM 87505-6303

**RE: Response to Disapproval, 2022 RCRA Financial Assurance Cost Estimate and Response to Disapproval, 2020 and 2021 Financial Assurance Cost Estimates Western Refining Southwest LLC (D/B/A Marathon Gallup Refinery) EPA ID# NMD000333211 HWB-WRG-MISC**

Dear Mr. Cobrain:

Western Refining Southwest LLC (D/B/A Marathon Gallup Refinery) is submitting this revised 2022 Financial Assurance (FA) Cost Estimate (Attachment A) and the response to the Disapproval letter, dated February 3, 2023, for the Gallup Refinery (Attachment B).

This FA estimate includes costs to address those activities specified in the Complaint and Consent Agreement and Final Order (CAFO) (dated August 26, 2009) for implementation of a remedy for Aeration Lagoons AL-1 and AL-2 and the requirements of the Resource Conservation and Recovery Act (RCRA) modified permit effective September 2017. The FA estimates were prepared in accordance with the Code of Federal Regulations (CFR) Chapter 264 Part 101 and substantially in compliance with the requirements of 40 CFR 264.142 and 264.144.

In addressing the requirements of the CAFO, historically the original 2009 cost estimate for the Aeration Lagoons (\$1,257,000) has been adjusted annually for inflation each year. The most recent update was conducted in January 2021 with an inflation adjusted estimate of \$1,482,201. To prepare the 2022 estimate, the 2021 estimate of \$1,482,201 was multiplied by an annual inflation factor (AIF) of 1.045. The 2022 estimate is \$1,548,900 (Attachment A-1). The AIF is calculated by taking the most recent fiscal year Gross Domestic Product (GDP) (averaged over the four quarters of 118.866) and dividing by the previous year's GDP (averaged over the four quarters of 113.769). The GDP is calculated by taking the average of each quarter, using GDP values in Table 1.1.9 – Implicit Price Deflators for GDP (Bureau of Economic Analysis 2022). The 2022 estimate for the ALs is \$1,548,900 (Attachment A-1).



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There are two separate provisions in the 2017 Modified RCRA permit, which require FA estimates. These two provisions can be found in Sections II.D.1 and II.D.2. These provisions address the post-closure care of the Land Treatment Unit (LTU) and the Facility-Wide Groundwater Monitoring, respectively. The FA estimate also includes the Solid Waste Management Units and Areas of Concern (Attachment A-1).

A revised FA estimate for post-closure care of the LTU was prepared in 2010, reflecting the work that had been completed since the first RCRA permit issued in 2000. The 2022 FA estimate includes revisions for updated labor costs and years remaining (Attachment A-2). The FA estimate for 2022 is \$168,861.

Section II.D.2 requires a FA estimate for 20 years of facility-wide groundwater monitoring starting in February of 2014. The initial estimated cost was \$1,762,340 in 2014. The FA estimate reflects this Facility-Wide Ground Water Monitoring Work Plan (Work Plan), updated for 2022 (submitted February 4, 2022). Historically, the previous years' Work Plan has been used, however, the 2022 Work Plan was submitted during January this year to incorporate the new sampling locations, sampling analysis and frequency prior to the first quarter 2022 sampling. The analyte list was also conditionally approved on February 25, 2022 via email. The Facility-Wide Ground Water Monitoring was estimated for 2022 and the years following 2022 (Attachment A-3). The cost estimate for 2022 and subsequent sampling years is \$5,595,566 (Attachment A-1).

The current total FA estimated cost is \$7,313,327 for addressing the Aeration Lagoons pursuant to the CAFO and implementation of the 2017 Modified RCRA Post-Closure Permit.

If you have any questions or comments regarding the information contained herein, please do not hesitate to contact Mr. John Moore at 505-879-7643.



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### Certification

*I certify under penalty of law that this document and all attachments were prepared under my direction of supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Sincerely,  
**Western Refining Southwest LLC, Gallup Refinery**

A handwritten signature in blue ink, appearing to read 'Tim Peterkoski', written over the printed name.

Timothy J. Peterkoski  
Director of Environment and Climate Strategy

Enclosures

cc: L. Tsinnajinnie, NMED HWB  
C. Eads, NMED HWB  
L. King, EPA  
L. Barr, NMOCD  
K. Luka, Marathon Petroleum Corporation  
J. Chen, Marathon Petroleum Corporation  
J. Moore, Marathon Gallup Refinery  
H. Jones, Trihydro Corporation



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### References

Bureau of Economic Analysis. 2022. Table 1.1.9. Implicit Price Deflators for Gross Domestic Product. January 27.

**ATTACHMENT A**

**ATTACHMENT A-1. JANUARY 2022 COST ESTIMATE FOR RCRA POST-CLOSURE PERMIT  
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY**

Waste Management Area	Corrective Action / Project	Investigation Costs	Remediation Costs	O&M Costs	Total Costs	Notes
<b>RCRA Regulated Units</b>						
Land Treatment Unit	Ground Water & Soil Monitoring	\$0	\$0	\$168,861	\$168,861	Post-closure care for LTU, Table 1B updated to reflect work completed through end of 2021
<b>Solid Waste Management Units (SWMUs) and Areas of Concern (AOC)</b>						
SWMU 1 – Aeration Basin	Soil investigation & potential remediation	\$0	\$0	\$0	\$0	remediation cost estimate developed Nov. 2009 pursuant to EPA CAFO; remedy not selected by NMED under the Permit
SWMU 2 - Evaporation Ponds	Investigation Work Plan (IWP) deferred	\$0	\$0	\$0	\$0	
SWMU 3 – Empty Container Storage Area/Bundle Cleaning Pad	IWP deferred	\$0	\$0	\$0	\$0	
SWMU 4 – Old Burn Pit	IWP due 6/30/2014	\$0	\$0	\$0	\$0	already capped, IWP submitted 6/24/2014 with additional sampling completed in 2016
SWMU 5 – Landfill Areas	IWP due 9/30/2014	\$0	\$0	\$0	\$0	already capped, IWP submitted 6/24/2014 with additional sampling completed in 2016

**ATTACHMENT A-1. JANUARY 2022 COST ESTIMATE FOR RCRA POST-CLOSURE PERMIT  
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY**

Waste Management Area	Corrective Action / Project	Investigation Costs	Remediation Costs	O&M Costs	Total Costs	Notes
SWMU 6 – Tank Farm	IWP deferred	\$0	\$0	\$0	\$0	No final remedy selected; voluntary Phase-Separate Hydrocarbon (PSH) recovery is conducted once a quarter at three wells & a small passive bioventing system is present, but the operations costs are minimal and no timeframe for operation is specified. No additional O&M costs are included as these actions would be conducted during other routine monitoring events.
SWMU 7 – Fire Training Area	IWP deferred	\$0	\$0	\$0	\$0	already capped, IWP submittal deferred
SWMU 8 – Railroad Rack Lagoon, ditch & fan area	Corrective Action Complete (CAC) without Controls Approved	\$0	\$0	\$0	\$0	Remediation completed and reports approved by NMED
SWMU 9 – Drainage Ditch Near Inactive Landfarm	IWP due 12/30/2018	\$0	\$0	\$0	\$0	IWP completed Dec. 2018
SWMU 10 – Sludge Pits	IWP due 9/20/2014	\$0	\$0	\$0	\$0	IWP submitted 9/16/2014 with investigation conducted in 2015 and 2016
SWMU 11 – Secondary Oil Skimmer	IWP due 11/1/2018	\$0	\$0	\$0	\$0	IWP completed in Oct. 2018
SWMU 12 – Contact Wastewater Collection System <sup>5</sup>	IWP deferred	\$0	\$0	\$0	\$0	
SWMU 13 – Drainage Ditch between N & S Evaporation	IWP due 6/30/2019	\$0	\$0	\$0	\$0	IWP completed in May 2019

**ATTACHMENT A-1. JANUARY 2022 COST ESTIMATE FOR RCRA POST-CLOSURE PERMIT  
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY**

<b>Waste Management Area</b>	<b>Corrective Action / Project</b>	<b>Investigation Costs</b>	<b>Remediation Costs</b>	<b>O&amp;M Costs</b>	<b>Total Costs</b>	<b>Notes</b>
SWMU 14 – API Separator	Soil investigation & potential remediation	\$0	\$0	\$0	\$0	NMED granted extensions for Soil investigation & potential remediation date
AOC 15 (NAPIS)	IWP deferred	\$0	\$0	\$0		
AOC 16 (NAPIS Overflow Tanks)	Release Assessment (RA) due 9/30/2018	\$0	\$0	\$0	\$0	RA submitted
AOC 17 (Railroad Loading/Unloading Facility)	RA due 12/31/2018	\$0	\$0	\$0	\$0	
AOC 18 (Asphalt Tank Farm) IWP	RA due 3/31/2019	\$0	\$0	\$0	\$0	
AOC 19 (East Fuel Oil Loading Rack)	CAC without Controls Approved	\$0	\$0	\$0	\$0	
AOC 24 (Crude Oil Tank Farm)	RA due 12/31/2019	\$0	\$0	\$0	\$0	
AOC 25 (Tank 573)	CAC without Controls Approved	\$0	\$0	\$0	\$0	
AOC 26 (Process Units) RA	RA due 9/30/2020	\$0	\$0	\$0	\$0	IWP submitted 12/2/2021
AOC 27 (Boiler & Cooling Unit Area)	RA due 3/31/2020	\$0	\$0	\$0	\$0	
AOC 28 (Warehouse & Maintenance Shop Area)	RA due 6/30/2020	\$0	\$0	\$0	\$0	RA submitted
AOC 29 (Equip. Yard & Drum Storage Area)	RA due 12/31/2020	\$0	\$0	\$0	\$0	RA submitted
AOC 30 (Laboratory)	RA due 6/30/2020	\$0	\$0	\$0	\$0	RA submitted
AOC 31 (Tank 27 & 28)	IWP due 3/31/2021	\$0	\$0	\$0	\$0	
AOC 34 (Scrap Yard)	RA due 6/30/2021	\$0	\$0	\$0	\$0	

**ATTACHMENT A-1. JANUARY 2022 COST ESTIMATE FOR RCRA POST-CLOSURE PERMIT  
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY**

Waste Management Area	Corrective Action / Project	Investigation Costs	Remediation Costs	O&M Costs	Total Costs	Notes
AOC 35 (Main Loading Racks, Crude Slop & Ethanol Unloading /Loading rack, Additive Tank Farm, Retail Tank Farm)	IWP due 8/31/2018	\$0	\$0	\$0	\$0	IWP RTC submitted January 2021
<b>Groundwater</b>						
Site-wide	Facility-Wide Groundwater Monitoring	\$0	\$0	\$0	\$5,595,566	2022 at \$460,244/yr + 6 years even (\$460,244/yr), 6 years odd (\$395,144/yr), and 4 events of 3-year sampling (\$748/yr); see Attachment A-3
<b>Other Costs</b>						
Aeration Lagoons	CAFO	\$1,548,900			\$1,548,900	2021 at \$1,482,201 adjusted by the annual inflation factor of 1.045 to adjust to 2022.
<b>Total Estimated Costs</b>		\$1,548,900	\$0	\$168,861	\$7,313,327	

Notes:

New estimates for the LTU and Groundwater costs were prepared by revising quantity of sample analyses, laboratory costs, and number of events remaining. Because they are new estimates, an inflation adjustment was not necessary.

Annual inflation factor calculated from Table 1.1.9 Gross Domestic Product for 2021 (118.866) and dividing by 2020 (113.769) to calculate the annual inflation factor of 1.045.

**ATTACHMENT A-2. LAND TREATMENT UNIT DETAILED COST ESTIMATE  
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY**

Activity	Cost Estimate in 2000 Part B Permit Application			Updated 2022 Cost Estimate		
	Material	Cost Frequency (over 30 years)	Estimated Cost	Material	Cost Frequency (remaining 9 years)	2022 Estimated Costs
<b>MONITORING</b>						
Sample by Zone						
ZOI	4 samples at \$1,450	3	\$17,400	4 samples at \$500 <sup>1</sup>	1	\$2,000
Treatment Zone	4 samples at \$1,450	3	\$17,400	4 samples at \$500 <sup>1</sup>	1	\$2,000
Chinle Slope Wash	1 sample at \$1,650	8	\$13,200	1 sample at \$710 <sup>2</sup>	1	\$710
Sonsela	4 samples at \$1,650	8	\$52,800	4 samples at \$710 <sup>2</sup>	1	\$2,840
Sample QC	25% of \$100,800		\$25,200	25% of \$7,550		\$1,888
Mobilization/labor						
ZOI & Treatment Zone	3 events at \$1,000/event	3	\$3,000	1 event at \$16,000/event	1	\$16,000
Chinle Slope Wash & Sonsela	8 events at \$2,000/event	8	\$16,000	1 event at \$8,000/event	1	\$8,000
<b>COVER ESTABLISHMENT</b>						
Filed Technician	\$10,000	1	\$10,000	completed		\$0
Microtox	\$300 per test	9	\$2,700	completed		\$0
Soil Amendments	352,000 ft <sup>2</sup> at 0.02/ft <sup>2</sup>		\$7,040	completed		\$0
Establish Vegetative Cover						
Top Soil	7.8 acres at \$2,000/acre		\$15,600	completed		\$0
Level LTU	7.8 acres at \$950/acre		\$7,410	completed		\$0
Plant Seed	7.8 acres at \$750/acre		\$5,850	completed		\$0
Water	1140 Mgal. At \$1/Mgal		\$1,140	completed		\$0
<b>Routine Inspection, Maintenance &amp; Repair</b>						
Site Inspection	Weekly inspection (\$200 annually)	30	\$6,000	\$100 per weekly inspection	468	\$46,800
Security Device	\$100 annually	30	\$3,000	\$220 annually	9	\$1,980
Run-on/Run-off	\$1,000 annually to maintain perimeter berm	30	\$30,000	\$2,500 annually to maintain perimeter berm	9	\$22,500
<b>Prepare Certification</b>						
Certify LTU Closure	120 hours at \$125/hour		\$15,000	120 hours at \$144/hour	120	\$17,280
Notice in Deed	6 hours at \$150/hour		\$900	6 hours at \$120/hour	6	\$720
Certify Final Closure	120 hours at \$125/hour		\$15,000	120 hours at \$144/hour	120	\$17,280
Notice in Deed	6 hours at \$150/hour		\$900	6 hours at \$120/hour	6	\$720
Total Task			\$265,540			\$140,718
Gallup Overhead		10%	\$26,554		10%	\$14,072
Contingency		10%	\$26,554		10%	\$14,072
<b>TOTAL</b>			<b>\$318,648</b>			<b>\$168,861</b>

Mgal. = million gallons

ZOI = Zone of Incorporation

<sup>1</sup>8260 @ \$45, 8270 @ \$180, 8015 @ \$75, metals @ \$200

<sup>2</sup>8260 @ \$45, 8270 @ \$180, 8015 @ \$75, metals @ \$200, pH @ \$115, cation/anions @ \$95

**ATTACHMENT A-3. FACILITY-WIDE GROUNDWATER MONITORING ANNUAL COST ESTIMATE  
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY**

Analysis	Frequency	# of Sample Locations <sup>1</sup>	# of QAQC Samples <sup>2</sup>	# of Samples	Cost/Sample	Cost per Year
<b>Quarterly Sampling Events</b>						
8260B - VOCs	Quarterly	96	45	564	\$45	\$25,380
8270C - SVOCs	Quarterly	96	45	564	\$90	\$50,760
8270SIM - SVOCs	Quarterly	96	45	564	\$90	\$50,760
200.7/200.8/245.1 - Metals - Total <sup>3</sup>	Quarterly	96	45	564	\$100	\$56,400
200.7/200.8/245.1 - Metals - Dissolved <sup>3</sup>	Quarterly, Even Years	96	45	564	\$100	\$56,400
8015B - GRO, DRO	Quarterly	96	45	564	\$75	\$42,300
537.1 - PFAS <sup>4</sup>	Quarterly	1	1	8	\$250	\$2,000
8011 - EDB	Quarterly	96	45	564	\$30	\$16,920
335.4 - Cyanide	Quarterly	96	45	564	\$25	\$14,100
Gen Chem - BOD, COD, E. Coli	Quarterly	1	0	4	\$80	\$320
analyses subtotal (odd years)						\$258,940
analyses subtotal (even years)						\$315,340
Level III Data Package						
5% of analysis						
analyses and lab package subtotal (odd years)						\$271,887
analyses and lab package subtotal (even years)						\$331,107
Sampling Supplies <sup>5</sup>	Quarterly	NA	NA	4	\$525	\$2,100
Filters	Quarterly	96	45	564	\$15	\$8,460
Quarterly Events subtotal (Even Years) <sup>3</sup>						\$341,667
Quarterly Events subtotal (Odd Years) <sup>3</sup>						\$282,447
<b>Semi-Annual Sampling Events<sup>6</sup></b>						
8260B - VOCs	Semi-Annual	12	NA	24	\$45	\$1,080
8270C - SVOCs	Semi-Annual	12	NA	24	\$90	\$2,160
8270SIM	Semi-Annual	12	NA	24	\$90	\$2,160
Method 200.7/200.8/245.1 - Metals - Total <sup>3</sup>	Semi-Annual	12	NA	24	\$100	\$2,400
Method 200.7/200.8/245.1 - Metals - Dissolved <sup>3</sup>	Semi-Annual, Even Years	12	NA	24	\$100	\$2,400
8015B - GRO, DRO	Semi-Annual	12	NA	24	\$75	\$1,800
Gen Chem - BOD, COD, E. Coli	Semi-Annual	11	NA	22	\$80	\$1,760
8081 - Pesticides <sup>7</sup>	Semi-Annual	1	NA	2	\$70	\$140
8011 - EDB	Semi-Annual	12	NA	24	\$30	\$720
335.4 - Cyanide	Semi-Annual	12	NA	24	\$25	\$600
analyses subtotal (odd years)						\$12,820
analyses subtotal (even years)						\$15,220
Level III Data Package						
5% of analysis						
analyses and lab package subtotal (odd years)						\$13,461
analyses and lab package subtotal (even years)						\$15,981
Filters	Semi-Annual	12	NA	24	\$15	\$360
Semiannual Events subtotal (Even Years) <sup>3</sup>						\$16,341
Semiannual Events subtotal (Odd Years) <sup>3</sup>						\$13,821
<b>Annual Sampling Event<sup>1</sup></b>						
8260B - VOCs	Annual	23	9	32	\$45	\$1,440
8270C - SVOCs	Annual	23	9	32	\$90	\$2,880
8270SIM - SVOCs	Annual	23	9	32	\$90	\$2,880
Method 200.7/200.8/245.1 - Metals - Total <sup>3</sup>	Annual	23	9	32	\$100	\$3,200
Method 200.7/200.8/245.1 - Metals - Dissolved <sup>3</sup>	Annual, Even Years	23	9	32	\$100	\$3,200
8015B - GRO, DRO	Annual	23	9	32	\$75	\$2,400
8011 - EDB	Annual	23	9	32	\$30	\$960
335.4 - Cyanide	Annual	23	9	32	\$25	\$800
analyses subtotal (odd years)						\$14,560
analyses subtotal (even years)						\$17,760
Level III Data Package						
5% of analysis						
analyses and lab package subtotal (odd years)						\$15,288
analyses and lab package subtotal (even years)						\$18,648
Filters	Annual	23	9	32	\$15	\$480
Annual Events subtotal (Even Years) <sup>3</sup>						\$19,128
Annual Events subtotal (Odd Years) <sup>3</sup>						\$15,768

**ATTACHMENT A-3. FACILITY-WIDE GROUNDWATER MONITORING ANNUAL COST ESTIMATE  
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY**

Analysis	Frequency	# of Sample Locations <sup>1</sup>	# of QAQC Samples <sup>2</sup>	# of Samples	Cost/Sample	Cost per Year
<b>MNA Annual Sampling Event<sup>8</sup></b>						
8260B - TBA	Annual	13	6	19	\$45	\$855
300.0 - Anions	Annual	13	6	19	\$35	\$665
Method 200.7/200.8 - Metals - Total Fe and Mn	Annual	13	6	19	\$25	\$475
Method 200.7/200.8 - Metals - Dissolved Fe	Annual	13	6	19	\$15	\$285
Methane	Annual	3	1	4	\$55	\$220
4500 - Sulfide	Annual	13	6	19	\$35	\$665
analyses subtotal						\$3,165
Level III Data Package						
5% of analysis						
analyses and lab package subtotal						\$3,323
Filters	Annual	13	6	19	\$15	\$285
MNA Annual Event subtotal						\$3,608
<b>Three-Year Sampling Events (next event 2023)<sup>9</sup></b>						
8260B - VOCs	Every third year	1	NA	1	\$45	\$45
8270C - SVOCs	Every third year	1	NA	1	\$90	\$90
8270SIM - SVOCs	Every third year	1	NA	1	\$90	\$90
Method 200.7/200.8/245.1 - Metals - Total <sup>3</sup>	Every third year	1	NA	1	\$100	\$100
Method 200.7/200.8/245.1 - Metals - Dissolved <sup>3</sup>	Every third year	1	NA	1	\$100	\$100
8015B - GRO, DRO	Every third year	1	NA	1	\$75	\$75
8011 - EDB	Every third year	1	NA	1	\$30	\$30
335.4 - Cyanide	Every third year	1	NA	1	\$25	\$25
analyses subtotal						\$555
Level III Data Package						
5% of analysis						
analyses and lab package subtotal						\$583
Filters	Every third year	1	NA	1	\$15	\$15
Sampling Event subtotal						\$598
Sampling Labor <sup>10</sup>	Four Quarterly Events		12 Days, 10 hour days		\$83/hour \$67/hour	\$72,000
	Two Semiannual Events		1 Day, 10 hour day		\$83/hour \$67/hour	\$3,000
	Annual Event		3 Days, 10 hour days		\$83/hour \$67/hour	\$4,500
	PW-2 event (every 3 years)		1 hour		\$83/hour \$67/hour	\$150
Labor subtotal						\$79,650
<b>Annual Total (without PW-2 event) - Even Years<sup>3</sup></b>						<b>\$460,244</b>
<b>Annual Total (without PW-2 event) - Odd Years<sup>3</sup></b>						<b>\$395,144</b>
<b>PW-2 Event Total - Every 3 Years</b>						<b>\$748</b>

Notes:  
 Annual Total (without PW-2 event) - Even Years: This line item is used for all even years of monitoring.  
 Annual Total (without PW-2 event) - Odd Years: This line item is used for all odd years of monitoring.  
 PW-2 Event Total: Used every 3 years including 2023, 2026, 2029, 2032

- |                                       |                                            |
|---------------------------------------|--------------------------------------------|
| # - Number                            | MNA - Monitored Natural Attenuation        |
| BOD - Biological Oxygen Demand        | NA - Not applicable                        |
| COD - Chemical Oxygen Demand          | NMED - New Mexico Environment Department   |
| DRO - Diesel Range Organics           | PFAS - Per- and polyfluoroalkyl substances |
| EDB - 1,2 Dibromoethane               | QA/QC - Quality assurance/quality control  |
| EPA - Environmental Protection Agency | SIM - Selected Ion Monitoring              |
| Fe - Iron                             | SVOCs - Semi-volatile organic compounds    |
| Gen Chem - General Chemistry          | TBA - tert-Butyl alcohol                   |
| GRO - Gasoline Range Organics         | VOCs - Volatile organic compounds          |
| Mn - Manganese                        |                                            |

<sup>1</sup> New monitoring wells were installed in 2021 and added to the 2022 and subsequent sampling events: OW-12A, OW-66, OW-67, OW-68, OW-70, RW-2R, MKTF-01R, MKTF-02R, MKTF-04R, MKTF-17R, and MKTF-18R.

<sup>2</sup> QAQC samples are accounted for in quarterly and annual events. Samples include field duplicates, field blanks, equipment blanks, and trip blanks. QAQC samples are collected at minimum of 1 per day.

<sup>3</sup> Total metals are sampled every year. Dissolved metals are only samples in even years. Metals analyses include EPA Methods 200.7, 200.8, and 245.1.

<sup>4</sup> PFAS analysis completed for monitoring well OW-63 per NMED Comment. NMED. 2020. Disapproval. Annual Groundwater Monitoring Report Gallup Refinery -2019, Western Refining Southwest Inc., Gallup Refinery, EPA ID #NMD000333211, HWB-WRG-20-013. November 23. Comments 25 (Pesticides) and 30 (PFAS).

<sup>5</sup> Sampling supplies include, ballers, deionized water, and miscellaneous items for sampling.

<sup>6</sup> QAQC samples included with quarterly sampling event

<sup>7</sup> Pesticide sample completed for evaporation pond EP-2 semiannually per NMED comment. NMED. 2020. Disapproval. Annual Groundwater Monitoring Report Gallup Refinery -2019, Western Refining Southwest Inc., Gallup Refinery, EPA ID #NMD000333211, HWB-WRG-20-013. November 23. Comments 25 (Pesticides) and 30 (PFAS) and NMED. 2021. Second Disapproval, [Revised] Facility Wide Groundwater Monitoring Work

<sup>8</sup> MNA sampling includes the following monitoring wells: MKTF-02R, MKTF-04R, MKTF-09, MKTF-10, MKTF-13, MKTF-16, MKTF-17R, MKTF-19, MKTF-20, MKTF-21, MKTF-22, MKTF-24, MKTF-25.

<sup>9</sup> Production well PW-2 sampled once every 3 years, will be sampled in 2023.

<sup>10</sup> Sampling labor is calculated using two field staff members (\$83/hour and \$67/hour).

<sup>11</sup> The sampling requirements addressed in the table are per the Facility-Wide Ground Water Monitoring Work Plan - Updates for 2022 (dated February 2022 - pending approval).

**ATTACHMENT B**

**New Mexico Environment Department to Western Refining Southwest LLC Comment Letter “Disapproval, Fiscal Year Ending 2021 Financial Assurance” (February 3, 2023)**

New Mexico Environment Department (NMED) Comment	Western Refining Southwest LLC Response
<b>Comment 1:</b>	<b>Response 1:</b>
<p>There is a typographical error on page 1, paragraph 1 of the cover letter when referencing the contents of the attachments. The Permittee states that Attachment A is the 2022 Financial Assurance (FA) Cost Estimate and Attachment B is the <i>Response to Comments</i>. However, Attachment A is the table with the <i>Response to Comments</i> and Attachment B has the 2022 FA Cost Estimate tables. The letter also makes references to “Table 1, Table 1A, Table 1B, and Table 1C” but all of the corresponding tables are labeled as “Attachment B-1, Attachment B-2, Attachment B-3, and Attachment B-4.” Ensure all references are correct in the 2023 and future submittals.</p>	<p>This comment is acknowledged. The 2022 Financial Assurance (FA) submittal has been revised with correct references.</p>
<b>Comment 2:</b>	<b>Response 2:</b>
<p>Page 1, paragraph 3 of the cover letter reports that the 2021 estimate (\$1,482,201) was multiplied by an annual inflation factor (AIF) of 1.03 using AIF from the Bureau of Economic Analysis (BEA) Table 1.1.9 (Implicit Price Deflators for GDP). The Permittee also states that “[t]he AIF is calculated by taking the previous year’s AIF and dividing by the current year’s AIF.” AIFs are not reports in Table 1.1.9. They are calculated from the Gross Domestic Product (GDP) values which are reported quarterly or annually in Table 1.1.9. The AIF is calculated using the following formula: “<i>Implicit price deflator</i> for GDP end of current fiscal year divided by the <i>Implicit price deflator</i> for GDP end of previous fiscal year. For example, to calculate the 2020 AIF: <i>Implicit price deflator</i> for GDP 2019 (111.562) divided by <i>Implicit price deflator</i> for GDP 2018 (109.320) = 1.021. It is also important that the GDP values are reported from the same quarter if the quarterly GDP is utilized. The GDP 2018 and 2019 values in the example calculation above were reported in the first quarter of Table 1.1.9 (last revised on November 30, 2022). In the response letter, provide the GDP values used to calculate the AIF and state which quarter the GDP values were reported from and the date the GDP values were referenced. Include this information in future cost estimate submittals and the cover letter. It would also be helpful to provide a printout of the version of Table 1.1.9 that was used to reference the GDP values so that NMED can verify the values and calculations during the review process (see attached printout for example).</p>	<p>The AIF is calculated using the formula documented by NMED. The cover letter incorrectly defined the GDP values as AIFs and has been revised to correctly reference the correct values. The 2021 and 2022 GDP values were calculated by averaging the reported quarterly values. The averaged annual GDPs and calculated AIF are provided in the cover letter.</p>

**New Mexico Environment Department to Western Refining Southwest LLC Comment Letter “Disapproval, Fiscal Year Ending 2021 Financial Assurance” (February 3, 2023)**

New Mexico Environment Department (NMED) Comment	Western Refining Southwest LLC Response
<p><b>Comment 3:</b></p> <p>Page 2, paragraph 2 of the cover letter states that “[a] revised FA estimate for post-closure care of the [Land Treatment Unit (LTU)] was prepared in 2010, reflecting the work that had been completed since the first RCRA permit issued in 2000. The 2022 FA includes revision for updated laboratory and labor costs (Table 1A). The FA estimate for 2022 is \$164,061.” There is a typographical error in reporting the 2022 cost estimate for the LTU. The 2022 FA Estimate for the LTU was reported as \$168,861 in Attachment B-1 (Land Treatment Unit Detailed Cost), rather than \$164,061. Based on NMED’s review of the table, the costs do not appear to have changed significantly. Explain how the new laboratory and labor costs were determined.</p>	<p><b>Response 3:</b></p> <p>The LTU cost estimate is revised each year based on the current years labor and laboratory costs for the frequency of post-closure care sampling remaining. The routine inspection, maintenance, and repair estimated costs are revised each year to account for the remainder of time in post-closure care for the LTU. Laboratory costs are also reviewed each year and revised as applicable.</p>
<p><b>Comment 4:</b></p> <p>Page 2, paragraph 3 of the cover letter states that “[t]he FA estimate reflects this Facility-Wide Ground Water Monitoring Work Plan (Work Plan), updated for 2022 (submitted February 4, 2022). Historically, the previous years’ Work Plan has been used, however, the 2022 Work Plan was submitted in January 2022 and incorporated new sampling locations, sampling analysis and frequency prior to the first quarter 2022 sampling. The Facility-Wide Ground Water Monitoring was estimated for 2022 [(Attachment B-3)] and the years following 2022 [(Attachment B-4)].” Although the 2022 Work Plan was Approved with Modifications on April 25, 2022, it is not recommended to submit the FA cost estimate with a work plan that has not been approved. There may be comments and changes to the Work Plan that affect the cost estimate calculations. Going forward, the Permittee must only use approved Work Plans to generate the cost estimate calculations. In addition, explain why there are two tables (Attachment B-3 and Attachment B-4) with the same information. It appears that the information from the tables can be submitted as one table with additional notes for those sections that require more explanation.</p>	<p><b>Response 4:</b></p> <p>The 2022 FA used the 2022 Facility-Wide Ground Water Monitoring Work Plan due to the significant changes in the analytical list and subsequent changes to the FA costs. The analyte list was conditionally approved on February 25, 2022 via email for the purpose of acquiring a full year of consistent data. The 2022 FA used this list to prepare the costs. Moving forward, the most recent approved Work Plan will be used to prepare FA costs.</p> <p>Attachments B-3 and B-4 were prepared to show the current year and subsequent years. The 2022 FA and future FA submittals will combine the two tables.</p>

**New Mexico Environment Department to Western Refining Southwest LLC Comment Letter “Disapproval, Fiscal Year Ending 2021 Financial Assurance” (February 3, 2023)**

New Mexico Environment Department (NMED) Comment	Western Refining Southwest LLC Response
<p><b>Comment 5:</b></p> <p>In Attachment A (Response to Comments), NMED’s Comment 1 from NMED’s February 16, 2022 Disapproval letter required the Permittee to “[e]xplain why the cost of filters are excluded from the <i>Level 4 Data Packet Cost per Year</i> calculation.” Address the following:</p> <ol style="list-style-type: none"> <li>a. The Permittee did not provide an explanation about why the cost of the filters was excluded from the calculation. Provide an explanation in the response letter.</li> <li>b. The “Level 4 Data Package” cost that was calculated from 10% of the routine analytical cost subtotals appear to have been removed from the 2022 cost estimate tables. Notes 3 and 4 from Tables 1C and 1B, respectively, of the 2021 Cost Estimate state that “[t]he laboratory changes and additional 10% beyond their routine analytical costs to prepare the Level 4 data packages.” Furthermore, Section IV.J.3.a.iv (Laboratory Deliverables) of the October 2013 RCRA Post-Closure Permit requires that “[t]he laboratory analytical data package kept on file at the Facility shall be prepared in accordance with EPA-established Level III or IV analytical support protocol.” Explain why the “Level 4 Data Package” cost was removed from the calculations of Attachments B-3 and B-4.</li> </ol>	<p><b>Response 5:</b></p> <ol style="list-style-type: none"> <li>a. Filters are not included in the cost of the <i>Level 4 Data Package</i> as it does not impact laboratory activities.</li> <li>b. Costs for maintaining the analytical data packages were inadvertently left off the calculations for the 2021 Cost Estimate. Costs for maintaining an analytical data package in accordance with EPA-established Level III analytical support protocol have been added to Attachment A-3.</li> </ol>
<p><b>Comment 6:</b></p> <p>On Page 4 of 4, Attachment B-1 (January 2022 Cost Estimate for RCRA Post-Closure Permit), the <i>Notes</i> Column under <i>Other Costs</i>, the Permittee states “2021 at \$1,482,201 adjusted by the annual inflation factor of 1.033 to adjust to 2022.” Based on NMED’s calculations, <math>\\$1,482,201 \times 1.033 = \\$1,531,114</math>. Verify that the adjusted 2022 cost estimate was correctly reported in the response letter. It would facilitate NMED’s review if the Permittee provided the excel spreadsheet so that NMED can verify the calculations for the cost estimates. Furthermore, it would also be helpful to include the equation and values used to calculate the AIF (<i>see also Comment 2</i>) and include it in the <i>Notes</i> section at the bottom of the appropriate tables for the 2023 Cost Estimate submittals and all future cost estimate submittals.</p>	<p><b>Response 6:</b></p> <p>NMED’s calculation is correct. The calculation used the non-rounded AIF to calculate the adjusted cost. The AIF was approximately 1.00330185 rather than the reported 1.033. Future cost estimate submittals will report the value used with the rounding applied to the value.</p> <p>However, the GDP value was historically taken from the Gross National Product Line. The 2022 and future FA’s have been revised to use the GDP line in Table 1.1.9. The 2022 value has been revised with the correct line in Table 1.1.9 and the letter has been revised.</p>

**New Mexico Environment Department to Western Refining Southwest LLC Comment Letter “Disapproval, Fiscal Year Ending 2021 Financial Assurance” (February 3, 2023)**

New Mexico Environment Department (NMED) Comment	Western Refining Southwest LLC Response
<b>Comment 7:</b>	<b>Response 7:</b>
<p>In the <i>Notes</i> sections of Attachments B-2, B-3, and B-4, clarify that the numbers reported in superscripts 1 and 2 (i.e., 8260, 8270, and 8015) are analytical methods in all future cost estimate table submittals.</p>	<p>This comment has been acknowledged. The analytical methods have been specified in the notes.</p>
<b>Comment 8:</b>	<b>Response 8:</b>
<p>In Attachment B-3 ((2022) Facility-Wide Groundwater Monitoring Annual Cost Estimate), under the <i>Semi-Annual Sampling Events</i>, in the <i># of Sampling Locations</i> column, the number of sample locations reports for the <i>Semi-Annual Sampling Event</i> for each analysis are reported as “12, 12, 12, 12, 12, 12, 11, 1, 12, 12.” Based on Table 4-1 (2022 Groundwater Monitoring Network and Sampling Frequency) from the Permittee’s February 11, 2022 <i>Facility-Wide Groundwater Monitoring Work Plan</i>, there are only 11 sampling locations reported for the semi-annual sampling event and they are all located in the Evaporation Ponds. Explain why there are 12 sample locations reported in Attachment B-3 in the response letter or correct the number as necessary. In addition, there is a typographical error in the title of Attachment B-3; <i>Attachment</i> is spelled incorrectly.</p>	<p>The 12 locations are for the following locations: EP-2, EP-3, EP-4, EP-5, EP-6, EP-7, EP-8, EP-9, EP-11, EP-12A, EP-12B, and OW-12. General chemistry analysis is not completed on OW-12. Pesticide analysis is only collected for location EP-2.</p>

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**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
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**Santa Fe, NM 87505**

CONDITIONS

Action 197645

**CONDITIONS**

Operator: Western Refining Southwest LLC 539 South Main Street Findlay, OH 45840	OGRID: 267595
	Action Number: 197645
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

**CONDITIONS**

Created By	Condition	Condition Date
scwells	Accepted for Record Retention Purposes-Only	3/15/2023