

Certified Mail # 7014 1820 0001 7489 0235

October 24, 2016

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



RE: HYDROCARBON SEEP INTERIM MEASURES QUARTERLY STATUS REPORT
WESTERN REFINING SOUTHWEST, INC. GALLUP REFINERY
EPA ID # NMD000333211

Dear Mr. Kieling:

The attached third quarter report was prepared pursuant to Comment 22 in your letter dated April 26, 2016 on the Interim Measures Report Hydrocarbon Seep Area. Comment 22 requests a quarterly status report.

If there are any questions regarding the enclosed Investigation Report, please contact Mr. Ed Riege at (505) 722-0217.

Certification

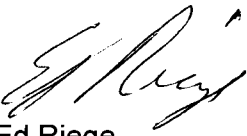
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, 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,

Mr. Daniel J. Statile

VP Refining

Western Refining Southwest, Inc. – Gallup Refinery



Ed Riege

Remediation Manager

Western Refining Southwest, Inc. – Gallup Refinery

cc D. Cobrain NMED HWB without enclosure
K. Van Horn, NMED HWB without enclosure
C. Chavez, OCD
L. King, EPA without enclosure
A. Allen, Western El Paso

**QUARTERLY STATUS REPORT
HYDROCARBON SEEP INTERIM MEASURES
WESTERN REFINING SOUTHWEST, INC – GALLUP REFINERY
Third Quarter 2016**

Activities conducted during third quarter

- Source Control – Western continued to remove separate-phase hydrocarbon (SPH) and groundwater from the sumps (S1 - S6). Approximately 4,078 gallons of SPH and 98,018 gallons of groundwater were recovered during the third quarter. We noted an increase in the estimated volume of SPH recovery starting with the third quarter measurements, which corresponds to a change in vacuum truck operators. We are currently working with the new operator to confirm accurate measurements are recorded for both recovered groundwater and SPH. The newly excavated sumps (second quarter 2016) north of (S1-S6) were also pumped throughout the quarter. These sumps were normally pumped twice a week but toward the end of the third quarter pumping decreased due to reduced volumes in the sumps. Approximately 120,000 gallons of groundwater were recovered during the third quarter. A summary table of the volumes is attached.
- Soil Excavation – The soils that were excavated along the drainage pathway to the north of the sumps starting on May 3, 2016 were transported to Waste Management's Painted Desert Landfill. The volume of soils removed was 38.36 tons and the waste manifests are attached.
- Camera Surveys – Western attempted to conduct a camera survey of the sewer lines (water draws) at the petroleum product storage tanks located in the southwestern portion of the main tank farm, just to the east of crude oil tank T-102 and near the Truck Loading Rack. Buildup of sediment restricted access for the camera and precluded successful completion of the planned activities.
- Well Yield Tests – Yield tests were conducted on monitoring wells MKTF-03, MKTF-06, MKTF-08, MKTF-10, MKTF-11, MKTF-12, MKTF-13, and MKTF-14 and the six sumps (S1- S6) to evaluate the potential for automated hydrocarbon recovery. The yield tests on the individual wells indicate likely sustained recovery rates of less than 0.5 gallons per minute (gpm) on most wells with the highest potential yield of approximately 1.0 gpm at MKTF-01, which is located near the sumps. The flow rate of the test pump was not sufficient to fully test the yield of the sumps.

Activities planned for fourth quarter

- Source Control – Western will continue current recovery operations at the sumps using a vacuum truck to pump SPH and groundwater from each of the sumps twice per week. Additional sumps will be installed in the excavation that was completed along the drainage pathway to the north of the original six sumps. The construction will be similar to the original sumps, using 6-inch well screen set to the bottom of the excavation and backfilled with coarse gravel to facilitate recovery of SPH and groundwater.
- Yield Tests – Additional yield tests will be conducted on the sumps using a controllable test pump with higher flow rates. Western will use the results of these additional tests and the earlier yield tests to further evaluate the recovery potential of an automated recovery system.
- Camera Surveys – Cleaning of drain lines and conducting camera surveys is being scheduled. This survey will include 200 feet of underground process sewer line from the fuel

oil loading rack to the manhole leading to the sewer line that was replaced in 2014. Other lines scheduled include underground process sewer lines in the southwest and west sections of the tank farm.

Western Gallup Refinery

September 2013- October 2016 Pumping Records For Release
Stand Pipes

pumping records provided by CTI (gallons)

DATE	hydrocarbon recovered	water pumped	total fluid pumped		hydrocarbon recovered	water pumped	total fluid pumped
9/3/2013*	682	3818	4500				
9/3/2013*	367	4133	4500				
9/4/2013	62	3938	4000				
9/6/2013	62	3938	4000				
9/9/2013	30	4470	4500				
9/11/2013	30	4470	4500				
9/13/2013	62	3938	4000				
9/16/2013	135	5140	5275				
9/18/2013	125	4111	4236				
9/24/2013	58	4742	4800				
9/26/2013	16	4220	4236				
10/2/2013	29	4918	4947				
10/8/2013	30	4569	4599				
10/18/2013	109	5059	5168				
10/28/2013	199	5379	5578				
10/29/2013	63	4049	4112				
11/12/2013	205	5275	5480				
11/14/2013	78	5168	5246				
11/18/2013	60	4539	4599				
11/26/2013	80	5168	5248				
12/3/2013	54	5169	5223				
12/6/2013	57	4890	4947				
12/12/2013	54	5169	5223				
12/17/2013	58	4775	4833				
				2013 Totals			
12/24/2013	57	4890	4947				
1/2/2014	88	4687	4775		2,705	111,045	113,750
1/6/2014	56	4947	5003				
1/7/2014	32	3829	3861				
1/9/2014	32	3448	3480				
1/13/2014	29	4688	4717				
1/16/2014	29	4688	4717				
1/22/2014	29	4918	4947				
1/29/2014	30	4449	4479				
1/31/2014	61	4236	4297				
2/4/2014	61	4236	4297				
2/11/2014	60	4539	4599				

Western Gallup Refinery
September 2013- October 2016 Pumping Records For Release
Stand Pipes

pumping records provided by CTI (gallons)

DATE	hydrocarbon recovered	water pumped	total fluid pumped
2/18/2014	57	4890	4947
2/25/2014	57	4890	4947
2/28/2014	63	3924	3987
3/4/2014	31	4327	4358
3/7/2014	29	4804	4833
3/12/2014	29	4804	4833
3/14/2014	30	4449	4479
3/17/2014	32	3829	3861
3/19/2014	32	3448	3480
3/24/2014	32	3703	3735
3/28/2014	32	3703	3735
4/1/2014	32	3703	3735
4/3/2014	32	3320	3352
4/7/2014	15	4220	4235
4/15/2014	30	4205	4235
4/23/2014	31	4327	4358
5/1/2014	31	4327	4358
5/7/2014	31	4081	4112
5/14/2014	30	4205	4235
5/22/2014	31	4081	4112
5/29/2014	31	3994	4025
6/6/2014	31	4081	4112
6/13/2014	32	3829	3861
6/20/2014	32	3955	3987
7/3/2014	31	4081	4112
7/10/2014	30	4205	4235
7/18/2014	30	4205	4235
7/28/2014	30	4205	4235
8/4/2014	30	4205	4235
8/14/2014	32	3955	3987
8/20/2014	31	4081	4112
8/29/2014	32	3955	3987
9/4/2014	32	3703	3735
9/11/2014	32	3576	3608
9/18/2014	32	3320	3352
9/26/2014	32	3448	3480
9/30/2014	32	3576	3608
10/7/2014	32	3320	3352

Western Gallup Refinery
September 2013- October 2016 Pumping Records For Release
Stand Pipes

pumping records provided by CTI (gallons)

DATE	hydrocarbon recovered	water pumped	total fluid pumped		hydrocarbon recovered	water pumped	total fluid pumped
10/14/2014	32	3320	3352				
10/21/2014	32	3955	3987				
10/30/2014	32	3955	3987				
11/7/2014	32	3320	3352				
11/12/2014	32	3320	3352				
11/18/2014	32	3064	3096				
12/4/2014	32	3829	3861				
12/9/2014	32	3955	3987				
12/15/2014	31	4081	4112				
12/24/2014	31	4081	4112				
				2014 Totals			
12/30/2014	32	3703	3735				
1/8/2015	31	4081	4112		2,108	242,182	244,290
1/21/2015	31	4327	4358				
1/29/2015	32	3448	3480				
2/6/2015	32	3448	3480				
2/11/2015	32	3320	3352				
3/5/2015	29	4688	4717				
3/12/2015	31	4081	4112				
3/16/2015	31	4081	4112				
3/25/2015	32	3703	3735				
3/31/2015	32	3955	3987				
4/13/2015	32	3829	3861				
4/20/2015	32	3703	3735				
4/27/2015	16	4096	4112				
4/30/2015	16	4096	4112				
5/11/2015	16	4220	4236				
5/29/2015	16	3971	3987				
6/8/2015	16	4096	4112				
6/12/2015	16	4096	4112				
6/16/2015	16	4220	4236				
6/24/2015	15	4583	4599				
7/2/2015	16	4096	4112				
7/8/2015	16	3971	3987				
7/15/2015	15	4343	4358				
7/22/2015	16	4220	4236				
7/30/2015	16	3845	3861				

Western Gallup Refinery
September 2013- October 2016 Pumping Records For Release
Stand Pipes

pumping records provided by CTI (gallons)

DATE	hydrocarbon recovered	water pumped	total fluid pumped			
8/6/2015	16	4220	4236			
8/12/2015	16	3971	3987			
8/17/2015	16	4220	4236			
8/21/2015	16	3845	3861			
8/26/2015	16	4220	4236			
9/2/2015	15	4464	4479			
9/11/2015	14	5154	5168			
9/25/2015	15	4464	4479			
10/2/2015	15	4583	4599			
10/8/2015	16	4220	4236			
10/23/2015	16	4817	4833			
10/29/2015	16	4220	4236			
11/11/2015	14	4933	4947			
11/20/2015	24	5554	5578			
11/30/2015	43	4790	4833			
12/10/2015	56	5323	5379			
12/17/2015	56	4891	4947			
12/24/2015	54	5114	5168			
				2015 Totals	hydrocarbon recovered	water pumped
12/31/2015	54	5114	5168			total fluid pumped
1/7/2016	56	5323	5379		1,071	188,634
1/19/2016	51	5429	5480			189,707
1/26/2016	56	5003	5059			
2/11/2016	54	5221	5275			
2/17/2016	56	4891	4947			
2/25/2016	56	5323	5379			
3/4/2016	47	5625	5672			
3/11/2016	49	5529	5578			
3/17/2016	59	4658	4717			
3/24/2016	45	5717	5762			
3/31/2016	49	5529	5578			
4/6/2016	38	5966	6004			
4/15/2016	40	5888	5928			
4/20/2016	56	5323	5379			
4/27/2016	43	5804	5847			
5/5/2016	47	5625	5672			
5/9/2016	60	4419	4479			

Western Gallup Refinery
September 2013- October 2016 Pumping Records For Release
Stand Pipes

pumping records provided by CTI (gallons)

DATE	hydrocarbon recovered	water pumped	total fluid pumped	
5/10/2016	45	5717	5762	
5/17/2016	40	5888	5928	
5/19/2016	51	5429	5480	
5/24/2016	38	5966	6004	
5/25/2016	49	5529	5578	
5/27/2016	43	5804	5847	
6/1/2016	45	5717	5762	
6/3/2016	51	5429	5480	
6/7/2016	35	6039	6074	
6/9/2016	47	5625	5672	
6/13/2016	40	5888	5928	
6/16/2016	38	5966	6004	
6/20/2016	40	5888	5928	
6/23/2016	49	5529	5578	
6/27/2016	47	5625	5672	
6/30/2016	60	4419	4479	
7/6/2016	232	4768	5000	Begin 3rd Qtr
7/8/2016	109	3891	4000	
7/11/2016	232	4768	5000	
7/19/2016	300	5300	5600	
7/21/2016	109	3891	4000	
7/25/2016	232	4768	5000	
7/28/2016	109	3891	4000	
8/2/2016	232	4768	5000	
8/9/2016	300	5300	5600	
8/15/2016	232	4768	5000	
8/18/2016	109	3891	4000	
8/23/2016	232	4768	5000	
8/25/2016	109	3891	4000	
8/29/2016	232	4768	5000	
9/1/2016	109	3891	4000	
9/7/2016	232	4768	5000	
9/9/2016	109	4187	4296	
9/12/2016	109	3891	4000	
9/15/2016	109	3891	4000	
9/19/2016	232	4768	5000	
9/27/2016	300	5300	5600	

Western Gallup Refinery
September 2013- October 2016 Pumping Records For Release
Stand Pipes
pumping records provided by CTI (gallons)

DATE	hydrocarbon recovered	water pumped	total fluid pumped		hydrocarbon recovered	water pumped	total fluid pumped
9/29/2016	109	3891	4000	3rd Qtr 2016 Totals	4,078	98,018	102,096

* two loads were removed on this date

** based on estimates from measurements taken on 10/13/16 and 10/18/16

10/5/2016			5460
10/7/2016			5460
10/10/2016			5460
Totals	11,599	728,482	736,005

SEEP OIL RETENTION DITCH

DATE	LOADS	(water/oil mixture)
4/1/2016	1	5460
4/27/2016	1	5460
4/28/2016	1	5460
5/5/2016	1	5460
5/9/2016	0.75	4200
5/13/2016	1	5460
5/24/2016	1	5460
5/26/2016	0.5	2730
5/27/2016	1	5460
6/1/2016	1	5460
6/2/2016	1	5460
6/6/2016	1	5460
6/8/2016	1	5460
6/9/2016	0.5	2730
6/14/2016	1	5460
6/16/2016	1	5460
6/23/2016	1	5460
6/29/2016	0.5	2730

Western Gallup Refinery
September 2013- October 2016 Pumping Records For Release
Stand Pipes

pumping records provided by CTI (gallons)

DATE	hydrocarbon recovered	water pumped	total fluid pumped		
7/6/2016	1	5460			
7/8/2016	1	5460			
7/13/2016	1	5460			
7/21/2016	1	5460			
7/27/2016	1	5460			
8/3/2016	1	5460			
8/9/2016	2	10920			
8/10/2016	0.5	2730			
8/16/2016	1	5460			
8/17/2016	1	5460			
8/18/2016	0.5	2730			
8/23/2016	2	10920			
8/24/2016	1	5460			
8/26/2016	1	5460			
8/30/2016	1	5460			
9/1/2016	2	10920			
9/8/2016	2	10920			
				3rd Qtr 2016	
9/14/2016	2	10920		Totals	LOADS 22
					(water/oil mixture) 120,120