UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, Pennsylvania 19103-2852

SUBJECT: Long-Term Stewardship Assessment
Shell Lubricants (Formerly: Pennzoil Quaker State Company)
EPA ID: PAD004329835
2 Main Street
Rouseville, PA 16301

DATE: September 29, 2023

TO: Alizabeth Olhasso, Section Manager
Long Term Stewardship File for Shell Lubricants (Formerly: Pennzoil Quaker State Company)
RCRA Corrective Action South Section

FROM: Kevin Bilash, Remedial Project Manager

Remedy Assessment Summary:

On September 27, 2023, the United States Environmental Protection Agency's (USEPA) Land, Chemicals, and Redevelopment Division (LCRD) representative, Kevin Bilash, conducted a long-term stewardship (LTS) assessment site visit of the Shell Lubricants (Facility) in Rouseville, PA. As detailed in the Conclusions and Recommendations section below, EPA's LTS determination is that that the Engineering Controls (ECs) are not fully eliminating or reducing exposure of all potential receptors to known contamination and further evaluation is necessary.

Introduction:

Long-term stewardship refers to the activities necessary to ensure that engineering controls (ECs) are maintained and that institutional controls (ICs) continue to be enforced. The purpose of the EPA Region 3 LTS program is to periodically assess the efficacy of the implemented remedies (i.e., ECs and ICs) and to update the community on the status of the RCRA Corrective Action facilities. The assessment is conducted in twofold, which consists of a record review and a field inspection, to ensure that the remedies are implemented and maintained in accordance with the final decision.

Facility Background:

Shell Lubricants is a former refinery and distribution hub bisected by Highway 8 and located in both Oil City and Rouseville, Venango County, Pennsylvania. For the purposes of Corrective Action, the facility has always been identified as one contiguous property with an address of 2 Main Street, Rouseville, PA. The Facility property consists of a total of 136 acres of which 76 are Plant 1 (Rouseville) and 60 are Plant 2 (Oil City). Both Plants are located along Oil Creek. Plant 1 had storage tanks which received crude oil. This oil was refined into various motor oils, lubricants, and fuels. Plant 2 had storage tanks that received product from Plant 1 via a pipeline.

In April 2000, Plant 1 was sold to Calumet Lubricants Co., L.P. and Pennzoil had retained the environmental liability. Plant 2 was acquired by Shell lubricants on October 1, 2002, during the acquisition of Pennzoil-Quaker State by the Shell Oil Company. Environmental liability for Plants 1 and 2 is now the responsibility of Shell.

Current Site Status:

Calumet has decommissioned Plant 1. Plant 1 has been parceled and being reused by five different entities: Fluid Recovery Services, Pennewell Sandblasting, GOC Property Holdings, Oil Valley Development LLC, and Jeffrey and Carrie Manners.

Pennzoil has decommissioned Plant 2. Plant 2 is currently used by Bert Klapec Inc (construction equipment laydown) and Virgile Iron and Steel (metal scrap yard) industries. Ownership of the Bert Klapec parcel is Oil Valley Development, LLC and David & Jean Klapec. Ownership of the Virgile Iron and Steel parcel is RRW Enterprise, LLC.

Records Review:

EPA performed a records review prior to a pre-site visit meeting to gather relevant information to determine the status of the Facility to prepare for the LTS. The files that were reviewed are:

Corrective Action Final Decision for Shell Lubricants (Formerly Pennzoil Quaker State Plant 2) - March 27. 2103
Corrective Action Final Decision for Shell Lubricants (Formerly Pennzoil Quaker State Plant 1) - September 18, 2014
Corrective Action Statement of Basis Pennzoil Quaker State Plant 1, August 13, 2014
Corrective Action Statement of Basis Pennzoil Quaker State Plant 2
Corrective Action Environmental Covenant Plant 2 Pennzoil Quaker State - Recorded November 15, 2010
Corrective Action Environmental Covenant Fluid Recovery Services Pennzoil Quaker State - Recorded April 6, 2015
Corrective Action Environmental Covenant GOC Property Holdings Pennzoil Quaker State - Recorded – Recorded August 22, 2013
Corrective Action Environmental Covenant Jeffrey Pennewell Pennzoil Quaker State - Recorded July 24, 2014
Corrective Action Environmental Covenant Oil Valley Pennzoil Quaker State - Recorded January 10, 2014
Corrective Action Environmental Covenant Plant 1 Pennzoil Quaker State - Recorded November 15, 2010 – duplicate of Plant 2 EC – needs to be removed from web
Geospatial PDF Site Map for Shell Lubricants Entire Facility, undated EPA website
2023 Financial Assurance Annual submittal, Joel Guya email, March 31, 2023
Financial Assurance Cost Estimate, Jeffrey Wade email August 31, 2023

The records review identified minor outstanding issues as highlighted above; one internal EPA website edit and the recordation date and proof for Environmental Covenant GOC Property Holdings. All other records indicate compliance with the Corrective Action Facility expectations.

Implementation Mechanism(s):

The Implementation Mechanism is the method for implementing IC and ECs required as a condition of the Statement of Basis and Final Decision. The implementation mechanism at the Facility is an EC and is described in further detail in Attachment 1.

Financial Assurance:

There are financial assurance obligations for the Facility. Shell continues to submit annual Financial Assurance documents as required. The most recent was the 2023 Financial Assurance submittal received March 31, 2023. A delay in the recent cost estimate occurred due to a misunderstanding on how to calculate due to recent investigative and alternative remedial assessments. Shell submitted a current cost estimate on August 31, 2023 that EPA is currently reviewing.

Reporting Requirements/Compliance:

1. Annual visual inspections. Currently performing quarterly; in compliance but EPA not copied. Discussed amending this during pre-site visit meeting. AECOM submitted the most recent quarterly sheen monitoring reports and recent annual EC compliance reports to EPA on September 8, 2023.
2. EC reporting ownership changes. Shell has been performing annual EC compliance reporting annually per the Covenant and reports and noted deficiencies to PADEP. Currently all ownership changes have been reported and this is currently in compliance.
3. Financial Assurance. Updates submitted annually to EPA. Discussed Shell questions during pre-site visit meeting. AECOM satisfied Financial Assurance submittal request. Currently in compliance.

Mapping:

The Facility information has been geospatially mapped and is available on the Facility's EPA Factsheet.

Pre-Site Visit meeting:

On August 24 and 31, 2023, EPA had virtual meetings with Shell and AECOM to discuss the LTS site visit expectations, plan the date, and provide EPA information on current investigative activities currently being performed at the Facility. The participants were: Kevin Bilash, Leroy (Buddy) Bealer (Shell), and Jared Rosenquist and Jeff Wade (AECOM). During the meeting, Shell/AECOM presented to EPA the current status of investigative activities occurring at both plants since the FDRTCs in 2013 and 2014. Several sheens have been reoccurring/newly identified along/near the Oil Creek retaining walls and the Cherry Run cap has failed due to extreme weather occurrences. AECOM has been following requirements to enhance visual inspections and is working with Shell to utilize newer investigation tools to focus on potential source areas while working toward developing a resilient remedy. This includes all options from bolstering the in-place retaining walls to removal and installation of a more environmentally friendly barrier. Shell has been submitting visual inspection reports to PADEP as well as holding update meetings to discuss activities occuring in line with the post-remedial care options written into the DFRTCs. EPA requested to be copied on future reports and be informed of update meetings to potentially participate to assure Corrective Action expectations are achieved. During the call, ownership information was discussed and it was noted that EPA wants to confirm no

changes have occurred since initial covenant recordations. A figure presented during the August 31, 2023 (plant 2) meeting appeared to show more parceling than is obvious in the single covenant for that property. A site visit date was confirmed for September 27, 2023.

Long-term Stewardship Site Visit:

The attendees were:

Name	Organization	Email Address
Kevin Bilash	US EPA Region 3	bilash.kevin@epa.gov
A. Lee Nageotte	PADEP NWRO	alnageotte@pa.gov
Henry Kramer	PADEP NWRO	henkramer@pa.gov
Leroy (Buddy) Bealer	Shell	leroy.bealer@shell.com
Jared Rosenquist	AECOM	jared.rosenquist@aecom.com
Jeff Wade	AECOM	jeff.wade@aecom.com
Dave Dodson	AECOM	david.dodson@aecom.com

EPA arrived on site to Plant 2 of the Shell Lubricants (formerly Pennzoil Quaker State) Facility on September 27, 2023 at 9 AM.

EPA met with the LTS participants for the site visit: Kevin Bilash (EPA); Lee Nagoette and Henry Kramer (PADEP); Jared Rosenquist, Jeff Wade and Dave Dodson (AECOM); and Buddy Bealer (Shell). Introductions and some brief discussion about the need to perform the LTS site visit occurred. Following that, a safety briefing was given by AECOM regarding potential hazards during a site walk. There were no concerns from the pre-site visit call that needed immediate follow-up, so the site walk quickly began around 9:30 AM. All participants listed joined the site walk for both plants even though the actual PADEP PM was unable to attend. Additionally, some references were made to PADEP's Covenant specialist who was also unavailable for the site visit. As a follow up to the pre-site visit meeting regarding EPA's notice of a figure show more parceling than is obvious in the single covenant for that property, PADEP provided a Covenant cheat sheet for Plant 2 showing four. EPA will follow up with PADEP to assure Covenant's are accurate.

The site visit Remedial Review Questionnaire was then reviewed and some discussion regarding the status or response occurred before all were in agreement with the initial responses.

Several locations were visited on the Plant 2 site walk. The first location was the former pipeyard area seep into Oil Creek. This is the southernmost seep area of the entire Facility. Shell discussed recent attempts to address this area due to continuous seeps noted during inspection events. Unfortunately restoration work had to stop due to less stability of retaining wall than expected compromising safety. Some work between the wall and the creek was performed (source removal, placement of organo clay and bentomat) that stopped previous sheening. Due to inability to perform full extent of actions in this area, seeps are still noted. Refer to pictures 29-36 for visuals of this area. The site visit Remedial Review Questionnaire (draft version prepared and provided by AECOM) was then reviewed and some discussion regarding the status or responses occurred before all were in agreement with the initial responses. The second location was the Outfall X area. Shell targeted this area to perform enhanced source removal and remedial

efforts but all work stopped due to crumbling retaining wall. Refer to pictures 18 and 23-27 for visuals of this area. Groundwater sampling no longer occurs but well level gauging in a few well continues. See picture 20 for these wells near Outfall X. A few pictures were taken to reference land use activities across Rt. 8 that is part of Plant 2. See pictures 21-22. AECOM mentioned a former tank yard across Oil Creek that is not part of Corrective Action property boundary. Within Oil Creek, piping that was labeled/identified as fire suppression was mentioned. EPA suggested to Shell to consider beginning to evaluate the possibility of PFAS impacts. Shell mentioned they may have researched already and concluded it was prior to PFAS use. The Plant 2 site walk concluded and the participants drove to Plant 1.

EPA arrived on site to Plant 1 of the Shell Lubricants (formerly Pennzoil Quaker State) Facility, specifically on the GOC Holdings parcel, at 10:30 AM. Several locations were also visited on the Plant 1 site walk. The first location was the Cherry Run bridge abutment cap. See pictures 13, 14, 16, and 17 visuals of this area. It can be seen that a previously installed cap was scoured away by water and ice and needs replacement. Some discussion around possible source occurred as Shell did locate photos of possible old production wells in the run (creek). The area has a rich history and is well documented to contain many improperly abandoned old production wells. While walking towards the next location, EPA took one picture of the land use looking north. See picture 15. The second location was the northernmost seep that was newly identified during a survey. Some discussion around EPA and PADEP programmatic decisions occurred if it was determined that the seeps were from historic or potentially natural conditions. This arose as it was noted that the sheen had very low odor and was unsimilar in appearance to other seeps. Shell is reviewing the information gathered and will continue to collect samples to fingerprint the seep to assist in this evaluation/discussion. See pictures 10 and 11 from this area. While walking back to the vehicles, EPA took 2 pictures of fill material being brought onto the site. It was explained to be construction and demolition debris from Klapec Industries activities. See pictures 8 and 9. There are no restrictions or concerns regarding fill material on these Plants. Before leaving this area, the participants drove to the resin cap area to observe conditions there. See picture 7. The cap looks well maintained.

Lastly, all participants drove to the southern most parcel belonging to Fluid Recovery Services. This area was one of the most difficult to remediate due to thicker LNAPL and had a sheet pile wall installed to contain seeps. Seeps continue to be observed as noted in pictures 1, 2, and 6. Some discussion occurred about the possibility of the sources remaining and difficulty to remediate as this was the former crude unloading area on the railroad tracks. See pictures 3-5 for a visual reference. Shell's plan is to address Plant 2 seeps first then move to Plant 1. The site visit concluded at approximately 1:30 PM.

Site visit pictures are documented in Attachment 2.

Conclusions and Recommendations:

Following the site visit, EPA reassessed the site visit Remedial Review Questionnaire considering the information realized during the site walk. Some edits were made and are documented in Attachment 3.

EPA's LTS determination is that that the Engineering Controls are not fully eliminating or reducing exposure of all potential receptors to known contamination and further evaluation is necessary. Even though the LTS determination is for further evaluation, at this time EPA is not recommending any changes to the ICs, ECs, Covenant or current activities discussed or documented in recent reports to PADEP. This is due to Shell already spearheading the approach of further evaluation through additional source investigation using newer advanced technology, evaluating remedial options with a focus on sustainability and resilience, coordination with PADEP, and overall following and improving upon options allowed for in the Covenant and FDRTC when determining additional measures are necessary.

Enc.:
Attachment 1: Remedial EC/IC Summary Tables (Plant 1 and Plant 2)
Attachment 2. Site visit pictures
Attachment 3: Remedial Review Questionnaires (Plant 1 and Plant 2)

Attachment 1: Remedial EC/IC Summary Table.

Facility Name	Shell Lubricants (Formerly: Pennzoil Quaker State Company) Plant 1			
Address	1 Main Street, Rouseville, PA 16301			
EPA ID#	PAD004329835			
Are there restrictions or controls that address:	**Yes**	**No**	**Area(s)**	**Description of restrictions, controls, and mechanisms**
Groundwater Use	X		Facility	No withdraw or use of the groundwater for any purpose
Residential Use	X		Facility	Use restricted to non-residential
Excavation	X		Facility	No person shall disturb soil where concentrations exceed MSCs or where SPL is present unless PADEP approved and includes HASP and Work Plan
Vapor Intrusion	X		Facility	No person shall construct or expand buildings unless additional monitoring provided to PADEP showing no VI concern or VI mitigation is installed
Capped Area(s)	X		GOC Parcel (resin cap) and Oil Valley (Cherry Run)	Integrity of Resin Cap on GOC parcel must not be disturbed. Cherry Run railroad bridge abutment cap annual inspection and reporting.
Other Engineering Controls	X		Along Oil Creek and Cherry Run (Oil Valley, GOC, and Fluid Recovery parcels)	Retaining walls and/or sheet pile wall need to be maintained or an alternate barrier installed
Other Restrictions	X		Facility	Construction of basements prohibited

Facility Name	Shell Lubricants (Formerly: Pennzoil Quaker State Company) Plant 2			
Address	1 Main Street, Rouseville, PA 16301			
EPA ID#	PAD004329835			
Are there restrictions or controls that address:	**Yes**	**No**	**Area(s)**	**Description of restrictions, controls, and mechanisms**
Groundwater Use	X		Facility	No withdraw or use of the groundwater for any purpose
Residential Use	X		Facility	Use restricted to non-residential
Excavation	X		Facility	No person shall disturb soil where concentrations exceed MSCs or where SPL is present unless PADEP approved and includes HASP and Work Plan
Vapor Intrusion	X		Facility	No person shall construct or expand buildings unless additional monitoring provided to PADEP showing no VI concern or VI mitigation is installed
Capped Area(s)		X		
Other Engineering Controls	X		Along Oil Creek	Retaining walls need to be maintained or an alternate barrier installed
Other Restrictions		X		

Attachment 2. Site visit pictures

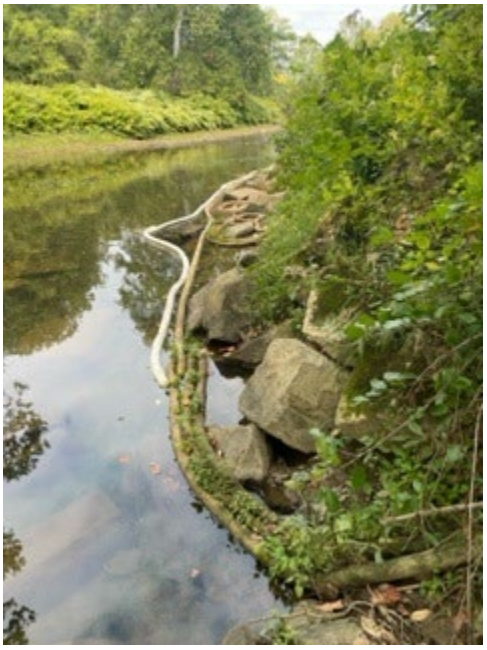
1. Southern End Crude Unloading Area seep

2. Southern End Crude Unloading Area seep - distant

3. Possible Southern End Crude Unloading Area pipe - cut

4. Possible Southern End Crude Unloading Area pipe bend

5. Possible Southern End Crude Unloading Area pipe valves



6. Southern End Crude Unloading Area seep - close

7. Resin cap

8. Fill material – Oil Valley parcel

9. Fill material – Oil Valley parcel

10. Northernmost sheen potential source - staining

11. Northernmost sheen identified during survey - new

12. Land use picture Oil Valley parcel with GOC Property Holdings in distance

13. Cherry Run abutment cap remnants– looking down from railroad bridge facing upstream

14. Cherry Run abutment cap remnants– at bottom of railroad bridge facing upstream

15. Oil Valley parcel land use – facing north

16. Cherry Run abutment cap remnants– looking down from railroad bridge facing downstream

17. Cherry Run bridge and abutment cap remnants– view from walking bridge facing upstream

18. Outfall X area seep from above

19. Outfall W area seep from above

20. groundwater level gauging wells

21. distant picture of Virgile Iron and Steel land use #2

22. distant picture of Virgile Iron and Steel land use #1

23. Outfall X area seep close-up

24. Outfall X and typical previous retaining wall fixes

25. prior pipe sealing attempt to reduce seep

26. Outfall X area seep

27. typical previous seep remedy approach – seal breakthrough area

28. Bert Klapec land use

29. seep near pipeyard area further downstream from above

30. seep near pipeyard area further downstream from above - closeup

31. deteriorating retaining wall

32. smaller distant seep near pipeyard area further downstream

33. continuous pipeyard area seep location looking downstream

34. top layer restored area (source removal, organo clay, bentomat)

35. shored up crumbling retaining wall in restoration area near pipeyard

36. pipeyard area seep

Attachment 3: Remedial Review Questionnaire Plant 1

LTS Checklist

IC Review and Assessment Questions:	**Yes**	**No**	**Notes**
• Have the ICs specified in the remedy been fully implemented? Implementation mechanism in place?	X		
• Do the ICs provide control for the entire extent of contamination (entire site or a specific portion)?	X		
• Are the ICs eliminating or reducing exposure of all potential receptors to known contamination?	X		
• Are the ICs effective and reliable for the activities (current and future) at the property to which the controls are applied?	X		
• Have the risk of potential pathway exposures addressed under Corrective Action changed?	X		Newly identified Sheen on Oil Creek. See pic 10 and 11
• Are modifications to the IC implementation mechanism needed? (i.e. UECA Covenant, Permit or Order)		X	
• Are there plans to develop or sell the property?		X	Although there was a For Sale sign noticed on Fluid Recovery Services parcel directly after Oil Creek bridge. Note for future check.
• Have all reporting requirements been met?	X		

Groundwater Review and Assessment Questions:	**Yes**	**No**	**Notes**
• Is groundwater onsite used for potable purposes?		X	
• Is the Facility connected to a public water supply?	X		
• Have any new wells been installed at the facility?		X	
• Are the current groundwater flow rate and direction similar as mentioned in the previous studies?	X		
• Groundwater contaminants stable or decreasing in concentration?			NA – Groundwater levels only taken – no longer sampled/monitored

• Are groundwater monitoring wells still in place (# wells)?			
• Any evidence or reason to re-evaluate the number and location of monitoring points and/or monitoring frequency?		X	
• For wells where groundwater monitoring is no longer required, have the wells be decommissioned?	X		Wells abandoned after Act 2 closure/EPA FDRTC
• Have notification letters been sent to the local POTW, County Department of Health, and Planning and Zoning Department regarding groundwater use restrictions?	X		

Surface and Subsurface Soil Review and Assessment Questions:	**Yes**	**No**	**Notes**
• Is the facility being used for residential purposes?		X	
• Have there been recent construction or earth-moving activities or plans for such?		X	Some fill activities but no concerns as not related to specific excavation ICs . See pics 8, 9, 12, 15

EC Review and Assessment Questions:	**Yes**	**No**	**Notes**
• Have the retaining walls, sheet pile wall, and resin cap been properly maintained?	X		See pic 7
• Have any repairs been necessary to Cherry Run bridge abutment cap or retaining walls?	X		See pics 13, 14, 16, 17 and site visit discussion
• Have the ECs specified in the remedy been fully implemented?	X		
• Do the ECs provide control for the entire extent of contamination (entire site or a specific portion)?		X	
• Are the ECs eliminating or reducing exposure of all potential receptors to known contamination?	X		Reducing but not eliminating
• Are the ECs effective and reliable for the activities (current and future) at the property to which the controls are applied?		X	Cherry run cap failure and Southern End Crude Unloading Area seep. See pics 1-7

• Are modifications to the ECs needed?	X		Shell is evaluating sustainable and resilient modification options

Vapor Intrusion Review and Assessment Questions:	**Yes**	**No**	**Notes**
• Have there been construction of new structures within the vapor intrusion restriction zone(s)?		X	
• Is the vapor intrusion mitigation system radius of influence effective for the structure in which its installed?			NA

Attachment 3: Remedial Review Questionnaire Plant 2

LTS Checklist

IC Review and Assessment Questions:	**Yes**	**No**	**Notes**
• Have the ICs specified in the remedy been fully implemented? Implementation mechanism in place?	X		
• Do the ICs provide control for the entire extent of contamination (entire site or a specific portion)?	X		
• Are the ICs eliminating or reducing exposure of all potential receptors to known contamination?	X		
• Are the ICs effective and reliable for the activities (current and future) at the property to which the controls are applied?	X		
• Have the risk of potential pathway exposures addressed under Corrective Action changed based on updated screening levels and new technologies?		X	
• Are modifications to the IC implementation mechanism needed? (i.e. UECA Covenant, Permit or Order)		X	
• Are there plans to develop or sell the property?		X	
• Have all reporting requirements been met?	X		

Groundwater Review and Assessment Questions:	**Yes**	**No**	**Notes**
• Is groundwater onsite used for potable purposes?		X	
• Is the Facility connected to a public water supply?	X		
• Have any new wells been installed at the facility?		X	
• Are the current groundwater flow rate and direction similar as mentioned in the previous studies?	X		
• Groundwater contaminants stable or decreasing in concentration?			NA
• Are groundwater monitoring wells still in place (# wells)?	X		Only 10 for liquid levels

• Any evidence or reason to re-evaluate the number and location of monitoring points and/or monitoring frequency?		X	
• For wells where groundwater monitoring is no longer required, have the wells be decommissioned?	X		
• Is there evidence of monitored natural attenuation occuring in groundwater?			NA
• Has (active remediation system) been maintained as necessary?		X	No longer necessary
• Have notification letters been sent to the local POTW, County Department of Health, and Planning and Zoning Department regarding groundwater use restrictions?	x		

Surface and Subsurface Soil Review and Assessment Questions:	**Yes**	**No**	**Notes**
• Is the facility being used for residential purposes?		X	
• Have there been recent construction or earth-moving activities or plans for such?	X		Building expansion occurred on RRW Enterprises, LLC (Parcel 07-14-07); reported to PADEP in 2022 EC Report

Vapor Intrusion Review and Assessment Questions:	**Yes**	**No**	**Notes**
• Have there been construction of new structures within the vapor intrusion restriction zone(s)?	X		Building expansion occurred on RRW Enterprises, LLC (Parcel 07-14-07); reported to PADEP in 2022 EC Report
• Is the vapor intrusion mitigation system radius of influence effective for the structure in which its installed?			NA

EC Review and Assessment Questions:	**Yes**	**No**	**Notes**
• Have the retaining walls been properly maintained?		X	Walls are crumbling.

• Have any repairs been necessary to retaining walls?	X		Typical required seep sealing
• Have the ECs specified in the remedy been fully implemented?	X		
• Do the ECs provide control for the entire extent of contamination (entire site or a specific portion)?		X	
• Are the ECs eliminating or reducing exposure of all potential receptors to known contamination?	X		Reducing but not eliminating
• Are the ECs effective and reliable for the activities (current and future) at the property to which the controls are applied?		X	Seeps continue to be present
• Are modifications to the ECs needed?	X		Shell is evaluating sustainable and resilient modification options

Miscellaneous Review and Assessment Questions:	**Yes**	**No**	**Notes**
• none			