BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

In the matter of the petition of Daylight Petroleum, LLC to open a docket pursuant to K.S.A. 55-605(a).	)	Docket No. 25-CONS-3040-CMSC
	)	CONSERVATION DIVISION
	)	License No. 35639

PRE-FILED DIRECT TESTIMONY OF

JULIE SHAFFER

ON BEHALF OF COMMISSION STAFF

NOVEMBER 1, 2024

Q. What is your name and business address?

A. Julie Shaffer, 137 E. 21st Street, Chanute, Kansas, 66720.

Q. By whom are you employed and in what capacity?

A. I am employed by the Conservation Division of the Kansas Corporation Commission (Commission), District #3 Office, as a District Professional Geologist (P.G.).

Q. Would you please briefly describe your background and work experience.

A. I earned a Bachelor's degree in Earth Sciences in 2002 from Emporia State University in Emporia, Kansas. After graduation I worked as an Environmental Geologist for Knightly Environmental for 2 years managing a variety of soil and groundwater monitoring and remedial activities. Next, I worked as a Petroleum Geologist for Quest Resources, SEK Energy, Cornish Wireline, Stranded Oil Resources, and independently for over 13 years. During this time I provided wellsite geological support for several hundred oil and gas wells in Eastern Kansas with geologic reporting, as well as conducting lease evaluations. I also utilized, interpreted and correlated open hole and cased hole logs for review and mapping purposes. I also worked on a research and development project trying to explore and advance Underground Gravity Drainage (UGD) techniques to mine for oil production.

My career then moved away from petroleum geology, and I worked as an Engineering Geologist for the Kansas Department of Transportation (KDOT) for 5 years. My work at KDOT involved supervising drilling activities associated with surface geology investigations and geotechnical surveys for road and bridge design and construction. During this time, in 2018, I passed the National Association of State Boards of Geology (ASBOG) exam and earned my Professional Geologist License in the State of Kansas. Finally, I began my employment with the KCC as a P.G. in the Underground Injection Control (UIC) Department

in 2021, where I reviewed and processed injection applications for the injection and disposal of produced fluids from oil and gas wells. In October 2022, I began a transition to the District #3 Office as a District P.G.

Q. What are your duties with the Conservation Division?

A. As a District P.G., I am responsible for the monitoring, investigation, and remediation of contamination sites throughout KCC District #3. I compose legislative reports for these contamination sites along with the Professional Geologist Supervisor. My job also involves inspections, documentation, investigations, and consultation with lease operators, landowners, and Commission Staff on compliance issues related to oil and gas production in Kansas. My duties also include providing guidance to the District #3 Environmental Compliance and Regulatory Specialists (ECRSs) on spill cleanup and the protection of fresh and usable water zones during plugging and completion of wells. I also propose remediation recommendations for soils that have been impacted by brine or hydrocarbons.

Q. Have you previously testified before this Commission?

A. Yes.

Q. What is the purpose of your testimony in this matter?

A. The purpose of my testimony is to discuss the petition filed by Daylight Petroleum, LLC (Operator) in Docket 25-CONS-3040-CMSC and why Operator should be required to plug the abandoned and broken out well on the Johnson lease in Section 16, Township 30 South, Range 16 East, Wilson County, Kansas. Specifically, my testimony discusses my research of the spill and the water samples that have been collected up to this point.

Q. Please provide a brief overview of the facts in this docket.

A. On June 26, 2023, Operator reported a spill and possible breakout well to Commission District #3 Staff at the Johnson lease in Wilson County, Kansas. Staff's initial inspection found fluid flowing from beneath the concrete floor of a building and around the water and electrical conduit lines up and into the interior of the building spilling onto the concrete floor. Staff's initial investigation is discussed in greater detail in Mr. Levi Burnett's testimony.

Q. When did you become involved in this matter?

A. I became involved in this matter around July 3, 2023, when Mr. Burnett informed me of the ongoing spill coming out from beneath the building on the Johnson lease. Once I was notified of the issue, I began researching historical maps of the property to identify if there had been a wellbore where the building currently stands.

Q. Were you able to find any maps that indicated a well bore might be beneath the building?

A. On July 6, 2023, I emailed two historical images to Mr. Burnett that included where the building currently stands. I have attached the two maps to my testimony as ***Exhibit JS-1***. The first map is from 1958 and the second map is from 1977. Both maps show discoloration of the area beneath where the commercial building currently stands. Levi Burnett also shared both maps with Operator. Historical images can be helpful when investigating buried abandoned wells, and oftentimes historical imagery can help determine an area to start a search based on discoloration seen on the ground surface.

Q. Did you also oversee samples taken from the lease?

A. Yes. Mr. Burnett provided me with a fluid sample taken from the monitoring pit and also a produced water sample taken from Operator's producing oil well, Olnhausen Farms #4, API

#15-205-28507. Staff collected the fluid samples using 6 ounce plastic containers that are specifically used for this purpose. The samples are then labeled with the location, date, and time of collection. Both samples are then analyzed in our District #3 lab using a simple titration method. The fluid sampled from the monitoring pit had a chloride level of 41,000 ppm. The known produced fluid sample from the Olnhausen #4 contained a chloride level of 45,000 ppm. This alone appears to show a direct connection between a nearby well from the same completion interval (within the Upper and Lower Bartlesville Sandstone, approximately 820 to 890 feet deep) due to the comparable chloride content. The chloride concentrations also indicate that the formation brines have comingled with the freshwater zones within Table I due to the fact that the fluid sample taken from the monitoring pit were slightly lower in chloride concentration than the produced fluids from the Olnhausen #4 well. The Table I depth for protecting fresh and usable water in this area is 150 feet.

Q. Did Operator conduct any additional testing after the water samples were taken?

A. Yes. On August 16, 2023, during a Zoom conference, Operator asked about hiring a third party, GSI Engineering, to conduct fluid level testing. Staff was fine with Operator hiring a third party if it could help identify the problem and allow the problem to be addressed. GSI Engineering proposed to conduct a 48 hour injection test where fluid would be injected into the Olnhausen Farms #6 well and then fluid level measurements would be taken every 12 hours in nearby wells to check for communication between the injection source and the area around the breakout well location. Due to issues with the injection pump and not having enough water to continue injecting the test was extended to 72 hours. This testing is documented in a field report which I have attached to my testimony as ***Exhibit JS-2***.

Q. Did there appear to be communication between the Olnhausen Farms #6 wells and other wells in the area during this testing?

A. Our understanding from Operator and GSI Engineering is that the fluid levels in the four wells which were monitored during the test did not increase.

Q. What was your conclusion?

A. Our conclusion is that the Olnhausen Farms #6 well has channeled directly with an old wellbore beneath the footprint of the building on the Johnson Lease. The clear communication shown from the injection test linking the Olnhausen #6 to fluids surfacing from under the building into the monitoring pit not only link a channeled horizontal pathway but also a vertical pathway to the ground surface thus indicating an abandoned wellbore.

Q. Was there any additional work conducted by GSI Engineering?

A. Yes. On September 5, 2023, Operator hired GSI Engineering to conduct a Ground Penetrating Radar (GPR) Scan of the interior concrete floor of the building. The documents from that scan indicate an area of high moisture approximately 20 feet wide by 25 feet long near the wall where the fluids came to surface. This scan is documented in the field report attached to my testimony as ***Exhibit JS-2***.

Q. Has Operator located the abandoned well?

A. To date and to my knowledge, the Operator has not located the abandoned well. Aside from the GPR Scan I am unaware of any other testing that has been done to locate the wellbore.

Q. Is there any indication that this fluid is causing pollution to fresh and usable water?

A. Yes, there does appear to be impact to the fresh and usable water table, which is within the 0 to 150 foot depth in this area. In order to give Operator an extension for locating and plugging the abandoned wellbore, District Staff instructed Operator to drill four permanent monitoring

wells to a depth of 140 feet which would be sampled quarterly to allow Staff to clearly see any impacts to the fresh and usable water table. Water samples collected and analyzed by an Operator hired contractor (UES, formerly GSI Engineering) indicate that the breakout well has caused elevated chlorides at the monitoring wells and pollution to fresh and usable water. I have attached a copy of the most recent report from UES to my testimony as ***Exhibit JS-3***. Page 6 of the UES Analytical Report includes a comparison of all of the samples taken from the monitoring wells. The samples tested indicate a rising level of chlorides at the monitoring well locations. Additionally, if this issue continues to remain unaddressed, there is a concern of impacting the Verdigris River which is approximately 500 feet west of the building.

Q. Please summarize your recommendations.

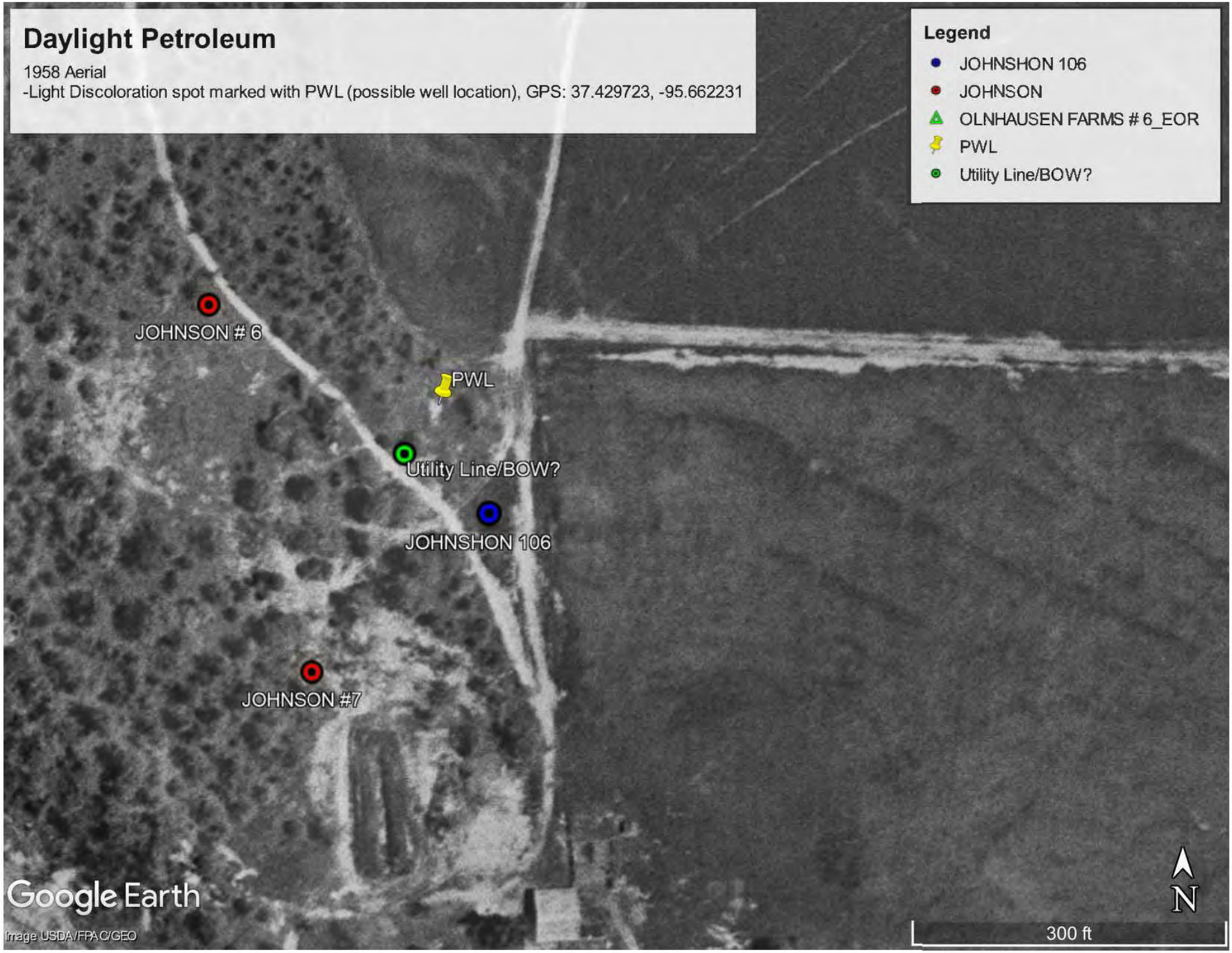
A. I would recommend that Daylight Petroleum be required to locate and plug the abandoned wellbore in order to prevent further pollution of fresh and usable water at the Johnson lease in Wilson County.

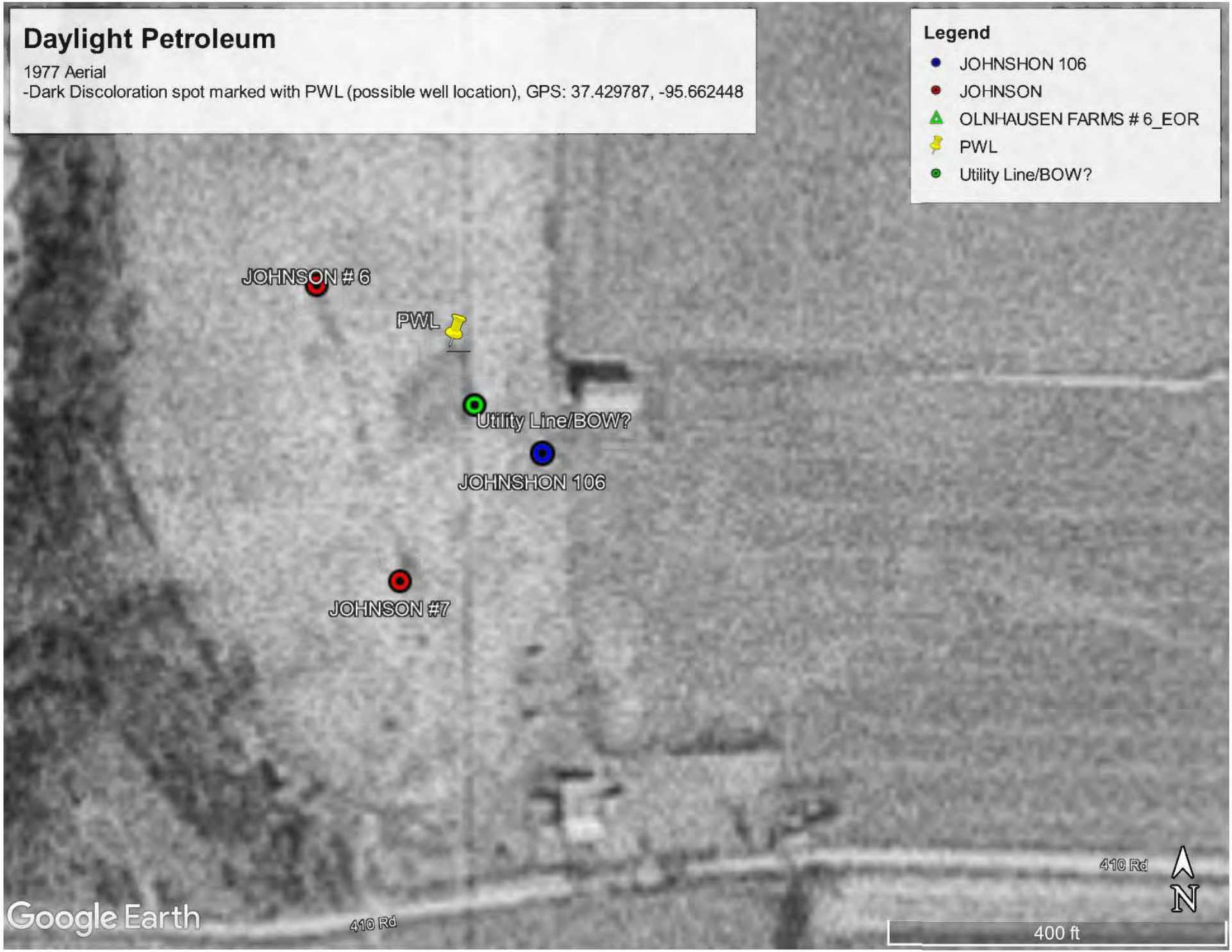
Q. Does this conclude your testimony?

A. Yes.

Daylight Petroleum

1958 Aerial
-Light Discoloration spot marked with PWL (possible well location), GPS: 37.429723, -95.662231




Daylight Petroleum
1977 Aerial
-Dark Discoloration spot marked with PWL (possible well location), GPS: 37.429787, -95.662448
Legend
JOHNSHON 106
JOHNSON
OLNHAUSEN FARMS # 6_EOR
PWL
Utility Line/BOW?
JOHNSON # 6
PWL
Utility Line/BOW?
JOHNSHON 106
JOHNSON #7
410 Rd
410 Rd
Google Earth
N
400 ft

KCC OIL/GAS REGULATORY OFFICES

Inspection Date: 08/22/2023 **District:** 3 **Incident Number:** 8431

☐ New Situation ☐ Lease Inspection
☐ Response to Request ☐ Complaint
☑ Follow-up ☐ Field Report

Operator License No: 35639 **API:** NA **Q3:** SE **Q2:** SE **Q1:** SW
Operator Name: Daylight Petroleum, LLC **SEC** 16 **TWP** 30 **RGE** 16 **RGEDIR:** E
Address: PO Box 52070 **FSL:** 516
City: Houston **FEL:** 3052
State: TX **Zip Code:** 77027 **Lease:** Johnson **Well No.:**
Phone contact: 620-754-3620 **County:** WL

Reason for Investigation:

Break out well on the Johnson lease, coming to surface under a commercial building located at 147350 410 Rd., Neodesha, KS 66757.

Problem:

A newly permitted injection well (Olnhausen Farms #6, API:15-205-28509-00-01) has channeled to an old unknown well located under the footprint of the 80' x 100' commercial building that is pushing produced fluids to surface under the building's concrete floor.

Persons contacted:

Daylight staff (in-person); Art Benjamin, Rob Tidwell, Kerry Seely, Landowner (in-person) Rob Tinsley, GSI Engineering (in-person) Kelsee Wheeler and KCC staff.

Findings:

Daylight Petroleum had asked on a Zoom Conference on August 16, 2023 to allow them to hire a third party, GSI Engineering, to conduct fluid level testing every 12 hours in nearby wells while injecting into the Olnhausen Farms #6 (15-205-28509-00-01) well to check for communication between the injection source and the area around the break out well location. On August 22, 2023, KCC staff; Troy Russell, Duane Sims, Julie Shaffer and Levi Burnett met with Daylight Petroleum staff Art Benjamin, VP of Operations and multiple Daylight Pet. Field staff and GSI Engineering, Kelsee Wheeler to discuss the problem of a break out well on the Johnson lease and to oversee the initial collection of fluid levels prior to starting the 72 hour injection test. GSI Engineering collected fluid levels from four (4) wells; Johnson #6 Johnson #7, Johnson #101 and Johnson #106. Injection into the Olnhausen Farms #6 started around 9:30am then had to shut down for about 20 minutes to fix a leaking union at the wellhead.

Continued on page 2

Actions / Recommendations **Follow-up Required** ☐ **Deadline Date:**

Daylight petroleum should immediately continue their investigation into the location of the break out wellbore under the footprint of the commercial building and proceed to plug the well to protect Table I, fresh and usable water table especially due to the close proximity to the Verdigris River (500 feet West).

Photo's Taken: 4

☑ RBDMS ☑ KGS ☐ KOLAR **Report Prepared By:** Julie Shaffer

☑ District Files ☐ Courthouse **Position:** Professional Geologist

Additional Findings:

The initial testing was to be a 48 hour test; however, the injection pump was found to be shut down on 8/24/2023 due to the lack of having enough water to continue injecting. At this point we calculated they had pumped for 33 hours before it shut down and had pumped 235 BBls. Daylight Petroleum had GSI Engineering extend the test to 72 hours.

Additionally, Daylight Petroleum, LLC was sent a NOV letter on August 3, 2023 stating they have until September 2, 2023 to produce, plug or obtain an approved CP-111, TA form on the Johnson #6 (API: 15-205-01072) and the Johnson #7 (API: 15-205-01073). Daylight Petroleum was also ask to provide a current MIT on the Olnhausen Farms #6 EOR well to verify that they did not have failure within the injection well itself. A satisfactory MIT was performed on the #6 EOR well on August 8, 2023 and witnessed by KCC staff, Levi Burnett.

KCC notes from the total of four (4) days of injection testing are below:

8/22/2023
A 5 gallon bucket test was conducted on pump prior to startup = 5 gallons/57 seconds
Total gallons on meter, prior to initial startup on 8/22/2023 = 57.76 gallons (rounded to 60 gallons)
Well Gauging: KCC staff did not measure fluid levels. Will see results from GSI Engineering report when submitted.

8/23/2023
8:00am check: Inspection of the Johnson #6 & #7 did not observe any visual change of fluid depth. Inspection of the Johnson monitor pit south side of commercial building did not show any fluid seeping through soil (odor of brine water was noticed).

The injection pump at the Olnhausen Farms tank battery was pumping at 320psi. The water meter shows 7260 gallons have pumped since start up on 8/22/2023. Levi Burnett timed the injection pump meter and it appears to be pumping 10 gallons of brine water every 1 minute and 52 seconds at 320psi. The Olnhausen Farms #6 EOR well pressure gauge shows 280psi at the well.

We are subtracting the 60 gallons when calculating pumped fluids based on total gallons on meter prior to the start of injection test.
A timed meter test was conducted at T.B. pump = 10 gallons/1 min 52 sec. (rounded to 2 min)
This calculates out to be approximately 300 gallons/hour or 7 Bbl/hour.

2:00pm check: Pump meter shows 8760 gallons at 320psi, pump is still running. Kerry Selly stated he had to move the float to keep the pump running. The injection well is showing 280psi.

8/24/2023
8:15am check: The injection pump at the Olnhausen Farms tank battery was found not pumping water to the Olnhausen Farms #6 EOR well. It appears the 2-200 Bbl production water stock tanks have been pulled down low enough to kick the injection pump off. The water meter at the injection pump reads 9960 gallons total have been pumped since restart of injection on 8/22/2023. The pressure gauge on the injection pump reads 200psi. The recorded gauge pressure at the Olnhausen Farms #6 EOR well was 180psi. The monitor pit located on the Johnson lease has the original puddle of water from the building's rooftop condensation from initial startup. **Report from GSI Engineering indicated that they had not seen any fluid level changes in the surrounding wells.**

Total fluids pumped = 9960 gallons or 235 Bbls
Total fluids pumped = (8/24/23 at 8am) 9960 gallons - (8/23/23 at 2pm) 8760 gallons = 1200 gallons
Time test of a cycle on meter was approximately 10 gallons/2 minutes = 300 gallons/hour
1200 gallons/300 gallons/hour = 4 hours
Pump pumped an additional 4 hours after the 2pm check, which indicates pump quit working at approximately 6pm on 8/23/2023.
Total fluids pumped = 235 Bbls in 33 hours

2:00pm check: The Olnhausen Farms injection pump had returned to pumping water into the Olnhausen Farms #6 EOR well at 11:30am per GSI Engineering. The meter on the pump shows 10860 gallons (minus the 60 gallons from initial startup), which calculates to 257 barrels of water being injected from initial startup on 8/22/2023 until 2:00pm 8/24/2023. Injection pump pressure is operating at 300psi. The Olnhausen Farms #6 EOR well pressure gauge shows 250psi. Levi Burnett called Kelsee Wheeler with GSI Engineering (785) 305-0853 at 2:09pm and asked her if Daylight Petroleum had extended their monitoring? Kelsee stated that

Daylight Petroleum had extended their monitoring for another day and the GSI field technician would be recording measurements at 4:00pm 8/24/2023 and measurements at 9:00am, 12:00pm and 4:00pm on 8/25/2023.

8/25/2023
8:30am check: Kerry Selly called Levi Burnett to let us know that produced fluids have started seeping into the monitor pit on the Johnson lease at the commercial building. There appears to be about 2 Bbls of produced fluids in the monitor pit, flowing at a steady rate. Daylight Petroleum had gotten into the monitor pit and cleaned off the North face of pit and up around the utility trench. Fluids flowing into the pit have a sheen and some oil spots. The injection pump at the Olnhausen Farms tank battery was pumping at 342psi. The water meter shows 16950 gallons. The pressure gauge at the Olnhausen Farms #6 EOR well was showing a reading of 302psi. Report from GSI Engineering states that the fluid level in the Johnson #6 and #7 wells has decreased in level since first measurement. They also state that the #7 has oil inside the wellbore and the #6 does not show any oil inside wellbore. Kerry Seely called Duane Sims at 10:12am to let us know they are shutting injection down.

Total fluids pumped = 402 Bbls from 8/22/2023-8/25/2023
55 hours of actual pump time

Well Gauging:
Johnson #6: inside prod. Casing = 23'5"
Johnson #7: inside prod. Casing = 12'8", outside prod. Casing = 15'9"

3:30pm check: There was no clear verification whether fluids were still running into the monitor pit due to a heavy downpour during the time of inspection.

8/28/2023
8:30am check: Duane Sims stopped at location and verified injection was off and noted approximately 3-4 BBls of fluids were in the monitor pit. There were no fluids actively seeping from the utility trench into the pit. Levi Burnett indicated that he would call Kerry Seely and let him know they needed to get the fluids pumped out of the pit and disposed of.

To Summarize: Daylight Petroleum, LLC hired GSI Engineering to conduct fluid level checks every 12 hours on four (4) nearby wells within a 48-72 hour timeframe while injecting into the Olnhausen Farms #6 authorized injection well. The purpose was to correlate fluid communication of the reservoir from the injection well to wells in the area, both around and inline with the injection well source and the end point where fluids are coming to surface. Our understanding from GSI/Daylight is that the fluid levels in the four monitored wells did not increase; therefore, it is best estimated that the Olnhausen Farms #6 well has channeled directly with an old wellbore under the footprint of the commercial building at 147350 410 Rd, Neodesha, KS. It is otherwise assumed that the communicated produced fluids would have shown themselves through means of least resistance and traveled up and out any of the four open wells with no surface control that GSI Engineering were monitoring.

On September 5, 2023 Daylight hired GSI Engineering to conduct a Ground Penetrating Radar scan of the interior concrete floor of the commercial building. The documents from that scan indicate an area of high moisture approximately 20' wide by 25' long north of the south wall where the fluids came to surface. The documents provided by GSI are attached to this report.

Daylight hired Kepley Well Service on September 11, 2023 to plug both the Johnson #6 (15-205-01072-00-00) and the Johnson #7 (15-205-01073-00-00). The CP-2/3 plugging reports for both wells are also attached.

KCC District #3 staff are awaiting the next step Daylight Petroleum plans to take in determining a more defined location of the break out well under the concrete flooring of the commercial building and the subsequent plugging of that well.

Conservation Division
District Office No. 3
137 E. 21st Street
Chanute, KS 66720

Kansas
Corporation Commission

Phone: 620-902-6450
http://kcc.ks.gov/

NOTICE OF VIOLATION(s)

8/3/2023

Daylight Petroleum, LLC #35639
Attention: Donnan Steele
PO Box 52070
Houston, TX 77027-2952

RE: **Temporarily Abandoned Wells; Penalty; Plugging.**

Mr. Steele,

You have two wells, **Johnson #6 (15-205-01072-00-00) and Johnson #7 (15-205-01073-00-00),** listed on your operator license number 35639 as "IN" in-active that you will be required to bring into compliance within 30 days. According to K.A.R.82-3-111, you will be required to produce, plug or obtain an approved CP-111, TA form on these subject wells by 9/2/2023. If you have a well that has been abandoned for ten years or more, it will not meet the criteria to obtain an approved CP-111, TA form and you may want to file for an "exception" according to K.A.R. 82-3-100.

Failure to comply with the 9/2/2023 deadline will result in a penalty recommendation in the amount of $100.00 for each of the abandoned wells and request that your operator license #35639 be suspended until the wells are brought into compliance. Thank you in advance for your cooperation concerning this matter and if you have any questions, please contact me at 620-902-6450 or 620-432-6511.

Sincerely,

Ryan Duling ECRS
Compliance Officer
Kansas Corporation Commission
District #3 Chanute Kansas

Cc: Troy Russell District #3 Supervisor

KCC DISTRICT III OFFICE FIELD REPORT PHOTO ID FORM

Operator: Daylight Petroleum, LLC	KLN: 35639
Lease: Olnhausen Farms	Legal: Sec 16 T30S R 16E SE SW SE
County: WL	PIC ID#: 1 and 2
Subject: Tank battery meter	PIC Orientation: Facing Southeast
FSL: 100’	Latitude:
FEL: 1700’	Longitude:
API#:	
PIC #1 - Date: 08/22/2022 Time: 9:34am	PIC #2 - Date: 08/25/2022 Time: 8:30am
Staff: Burnett/Sims	

Additional Information: The picture to the left shows the pump meter after initial 5 gallon bucket test indicating meter has had 57.76 gallons ran through prior to starting up the injection test on the Olnhausen Farms #6 (15-205-28509-00-01) on 8/22/2023. Picture on the right is of the pump meter at the end of the test on 8/25/2023. Meter is showing a total of 16,956.70 gallons injected into the #6 EOR well. For a total of 16,898.94 gallons or 402.4 Bbls.

KCC DISTRICT III OFFICE FIELD REPORT PHOTO ID FORM

Operator: Daylight Petroleum, LLC.	KLN: 35639
Lease: Johnson	Legal: Sec. 16-T30S-R16E SE SE SW
County: Wilson	PIC ID#: IMG 0163, IMG0164
Subject: Complaint #8346, Johnson Monitor Pit	PIC Orientation: Facing North, Facing North
FSL: 516’	Latitude: 37.429598
FEL: 3052’	Longitude: -95.662341
API#: NA	
Date: 8/25/2023	Time: 9:20 AM, 9:21 AM
Staff: Duane A. Sims	

Additional Information: In the picture to the left you can see that the pit has approximately 2 barrels of produced fluids in it. As you can see there is a slight oil sheen with some oil spots on top of the water. The picture to the right shows the produced fluids flowing into the pit from the trench that the water line and electric conduct lays in under the shop floor. The produced fluids was found flowing on August 25, 2023 after injection was turned back on into the Olnhausen Farms #6 (15-205-28509-00-01) on August 22, 2023.

September 6, 2023

SUBJECT: Geophysical Exploration – Field Notes
Daylight Petroleum
Neodesha, Kansas
GSI Job No. 23T2177.01

Field Exploration

- Arrived onsite approximately 09:55. Had conversation with Kevin regarding general situation.

- Finished speaking with Kevin at approximately 10:05, unloaded equipment and began Ground Penetrating Radar (GPR) scan in northwest corner of the building interior near utility conduit origin point.

- Located large, rectangular anomaly near west side of building, running north to south beginning approximately 15 feet south of northwest exterior door and ending at southwest garage entrance. Anomaly was measured to be approximately 5 feet wide and approximately 50 feet in length.

- Spoke with Kevin and Mike regarding possible nature of rectangular area. No one was aware the origin.

- Apparent conduit/utility corridor located beginning at electrical box and running southeast to the east side of the middle garage door where the conduit exits the slab. Corridor measured at between 5 and 6 feet in width. Corridor crosses rectangular anomaly at approximately 45-degree angle near the northwest door.

- Multiple large, consistent, and linear items located running both north-south and east-west. Presumed instances of heating elements or other sub-slab utilities.

- Mild instances of moisture level/material fluctuation noted through out building interior. Most obvious nearest the north wall of building, consistent with the tendency of outside moisture to migrate intermittently beneath outer edges of structures. Nothing out of the ordinary noted in this regard.

- After several initial passes to establish basic properties and layout of slab, GPR settings were modified to allow for more precise investigation of suspicious areas and reveal previously missed anomalies. Began to outline area of high moisture fluctuation or sudden material change.

- Large anomalous area was outlined near the south conduit exit/leak point/observation pit. Area found to be irregularly shaped. East side of area observed to have a relatively sudden change in dielectric reading while the northwest and west portions were observed to be more gradient. West portion of anomaly overlaps utility corridor. Area extends a maximum distance of approximately 25 feet north from observation pit and is 25 feet wide at the widest point.

- Readings consistent with possible sub-slab void/settling, abnormal amount of water, or inconsistent backfill material. Exact nature cannot be identified without further investigation. GPR exploration ended at approximately 14:30.

- Please be aware that overall scan efficacy for this site is affected by greater than normal amounts of intra-slab and sub-slab utilities and reinforcement. Accuracy for measurements of depth, shape, size, and other qualities of located anomalies are reduced.

Respectfully submitted,
GSI Engineering, LLC

Kaleb A. Meyer, I.G.
Project Geologist

GSI Engineering	Project Daylight Petroleum 23T2177.01	
	Location Neodesha, KS	Date 9/5/23
	Calc by K. Meyer	Page of

Not to Scale

GENERAL LOCATION

Daylight
Petroleum

Notes

Rectangular anomaly from the NW Corner of the building to the south.

GENERAL LOCATION

Daylight
Petroleum

Notes

Rectangular anomaly from the NW Corner of the building to the south.

GENERAL LOCATION

Daylight Petroleum

Notes

Moisture anomaly around the conduit.

GENERAL LOCATION

Daylight Petroleum

Notes

Moisture anomaly around the conduit.

GENERAL LOCATION

Daylight
Petroleum

Notes

Moisture anomaly around the conduit.

GENERAL LOCATION

Daylight
Petroleum

Notes

Moisture anomaly around the conduit.

GENERAL LOCATION

Daylight Petroleum

Notes

Utility corridor looking NW.

GENERAL LOCATION

Daylight Petroleum

Notes

Moisture anomaly around the conduit.

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GENERAL LOCATION

Daylight Petroleum

Notes

Moisture anomaly around the conduit.

TO:

STATE CORPORATION COMMISSION
CONSERVATION DIVISION - PLUGGING
266 N. Main St., Ste. 220
Wichita, KS 67202-1513

API Well Number: 15-205-01072-00-00
Spot: NWSESESW **Sec/Twnshp/Rge:** 16-30S-16E
657 **feet from** S **Section Line,** 3240 **feet from** E **Section Line**
Lease Name: JOHNSON **Well #:** 6
County: WILSON **Total Vertical Depth:** 820 **feet**

Operator License No.: 35639
Op Name: DAYLIGHT PETROLEUM, LLC
Address: PO BOX 52070
HOUSTON, TX 77027

String	Size	Depth (ft)	Pulled (ft)	Comments
PROD	2	835		0 SX
SURF	10	20	0	0 SX

Well Type: OIL **UIC Docket No:** **Date/Time to Plug:** 09/11/2023 12:00 AM

Plug Co. License No.: 33749 **Plug Co. Name:** KEPLEY WELL SERVICE, LLC

Proposal Rcvd. from: KERRY SELLY **Company:** **Phone:** (620) 363-0709

Proposed Plugging Method: RUN TUBING TO TD, CIRCULATE CEMENT THROUGH TUBING TO SURFACE, PULL TUBING OUT AND TOP WELL OFF WITH CEMENT.

Plugging Proposal Received By: **WitnessType:** COMPLETE (100%)

Date/Time Plugging Completed: 09/11/2023 1:00 PM **KCC Agent:** LEVI BURNETT

Actual Plugging Report: **Perfs:**

KWS ran 1" tubing down inside the 2" production casing to the depth of 10' hit mud, began washing. The 1" tubing was washed down to 835', hit solid. The inside of the 2" production casing had cement circulated from 835' to surface. The 1" tubing was removed and the 2" production casing was topped off with cement. 1" tubing was washed down the backside of the 2" production casing to the depth of 735'and hit solid. Cement was spotted at 735' to surface. The 1" tubing was pulled up to 400' and cement was circulated to surface. The 1" tubing was moved up to 250' and cement was circulated to surface. The 1" tubing was pulled out of the well and the surface casing topped off with cement. A total of 180 sacks of cement was used to plug this well.

Remarks: THIS WELL WAS PLUGGED DUE TO COMPLIANCE.

Plugged through: TBG

District: 03 **Signed** Levi Burnett E.C.R.S.

(TECHNICIAN)

Form CP-2/3

TO:

STATE CORPORATION COMMISSION
CONSERVATION DIVISION - PLUGGING
266 N. Main St., Ste. 220
Wichita, KS 67202-1513

API Well Number: 15-205-01073-00-00
Spot: SWSESESW **Sec/Twnshp/Rge:** 16-30S-16E
305 **feet from** S **Section Line,** 3143 **feet from** E **Section Line**
Lease Name: JOHNSON **Well #:** 7
County: WILSON **Total Vertical Depth:** 820 **feet**

Operator License No.: 35639
Op Name: DAYLIGHT PETROLEUM, LLC
Address: PO BOX 52070
HOUSTON, TX 77027

String	Size	Depth (ft)	Pulled (ft)	Comments
PROD	2	825		0 SX
SURF	12	20		0 SX

Well Type: OIL **UIC Docket No:** **Date/Time to Plug:** 09/11/2023 9:30 AM

Plug Co. License No.: 33749 **Plug Co. Name:** KEPLEY WELL SERVICE, LLC

Proposal Rcvd. from: KERRY SELLY **Company:** **Phone:** (620) 363-0709

Proposed Plugging Method: RUN TUBING TO TD, CIRCULATE CEMENT THROUGH TUBING TO SURFACE, PULL TUBING OUT AND TOP WELL OFF WITH CEMENT

Plugging Proposal Received By: **WitnessType:** COMPLETE (100%)

Date/Time Plugging Completed: 09/11/2023 9:30 AM **KCC Agent:** LEVI BURNETT

Actual Plugging Report: **Perfs:**

Ran 1" tubing down inside the 2" production casing to the depth of 825', spotted 3 barrels of cement. Pulled the 1" tubing up to 400' and circulated cement to surface, pulled the 1" tubing out of the well and topped the 2" production casing off with cement. Ran 1" tubing down the backside of the 2" production casing to the depth of 625', followed with spotting 19 barrels of cement, pulled the 1" tubing up to 425' and circulated cement to surface. Pulled the 1" tubing up to 250' and circulated cement to surface. Pulled all remaining tubing out of well and topped both 2" and 12" surface casing off with cement. A total of 235 sacks of cement was used to plug this well.

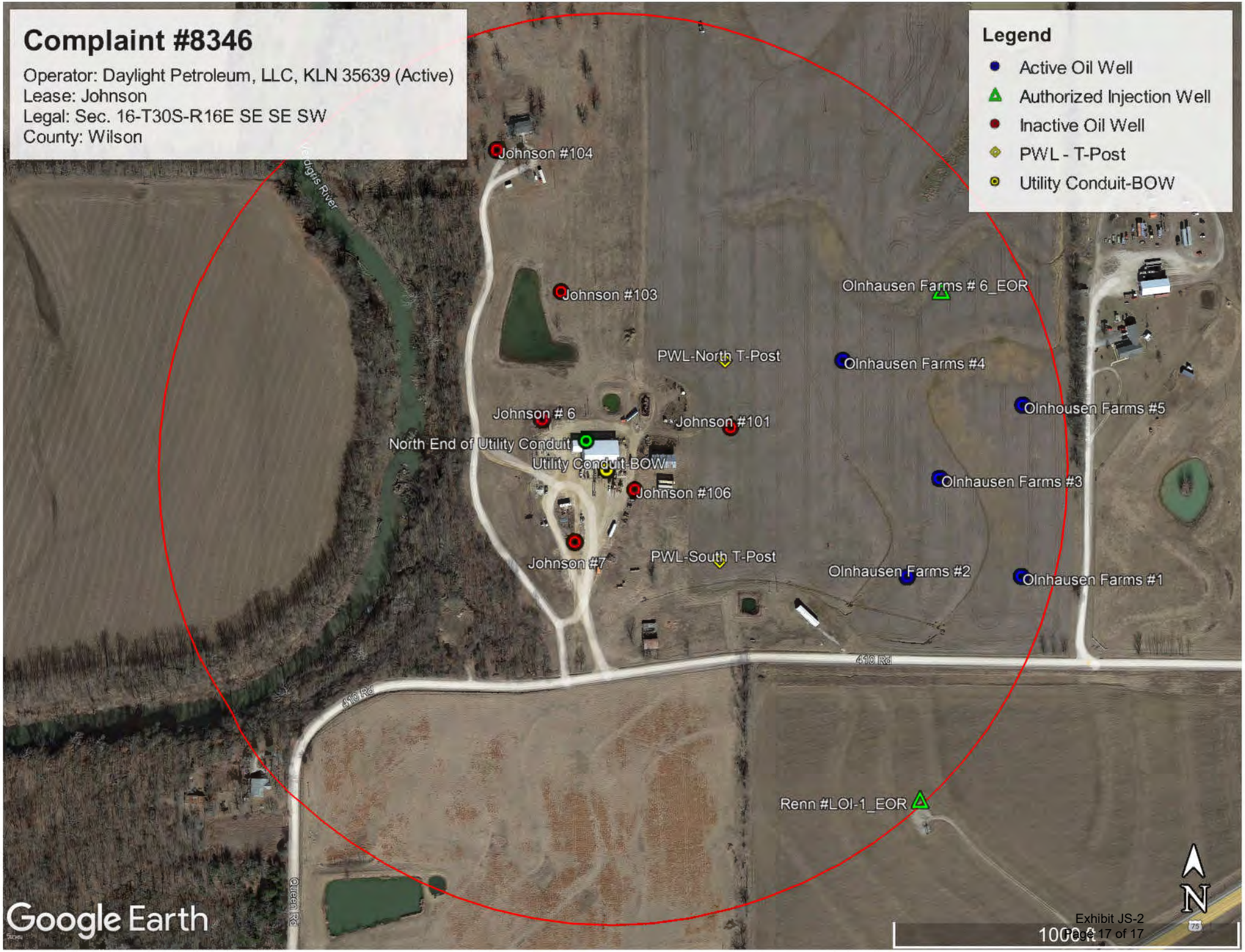
Remarks: THIS WELL WAS PLUGGED DUE TO COMPLIANCE.

Plugged through: TBG

District: 03 **Signed** Levi Burnett E.C.R.S.

(TECHNICIAN)

Form CP-2/3


Complaint #8346
Operator: Daylight Petroleum, LLC, KLN 35639 (Active)
Lease: Johnson
Legal: Sec. 16-T30S-R16E SE SE SW
County: Wilson
Legend
Active Oil Well
Authorized Injection Well
Inactive Oil Well
PWL - T-Post
Utility Conduit-BOW
Johnson #104
Johnson #103
Olnhausen Farms # 6_EOR
PWL-North T-Post
Olnhausen Farms #4
Olnhousen Farms #5
Johnson # 6
Johnson #101
North End of Utility Conduit
Utility Conduit-BOW
Olnhausen Farms #3
Johnson #106
Johnson #7
PWL-South T-Post
Olnhausen Farms #2
Olnhausen Farms #1
410 Rd
410 Rd
Renn #LOI-1_EOR
Queen Rd
Google Earth
N
1000 ft

October 3, 2024

Daylight Petroleum
Attn: Rolando Moreno
HSER Manager
rmoreno@daylightpetroleum.com

RE: **Summary of Field Activities**
Monitoring Well Sampling
Site: Daylight Petroleum – Olnhausen Injection Well 6
One mile East of Neodesha, Kansas
Neodesha, KS
GSI Project No. 23T2177.01

Dear Mr. Moreno:

GSI Engineering, LLC, a UES Company (UES) has prepared this letter report to summarize field activities that took place in response to a request sent to Daylight Petroleum by the Kansas Corporation Commission (KCC) on April 24, 2024, in response to the Monitoring Well and Installation Report, dated December 29, 2023.

On September 12, 2024, a UES environmental professional mobilized to the Site to sample the four (4) monitoring wells that were installed in December 2023. Groundwater levels were collected in all the monitoring wells using a decontaminated, battery-operated water level indicator. All fluid levels were measured to the north side of casing prior to collecting samples. Each well was purged of three (3) well volumes prior to collection of the sample.

The samples were collected with a new polyethylene bailer into the laboratory provided unpreserved 250-mL plastic sample containers and submitted to Pace Analytical Services, LLC, (Pace) of Lenexa, Kansas, for analysis of chloride via EPA Method 300.0. Each container was labeled with the sample identity and time and date of collection, in addition to the pre-printed project name, project number, and requested analysis included on the label. Samples were immediately placed within an iced cooler. The samples were accompanied by a chain of custody/sample transmittal form. Chain-of-custody procedures were followed in accordance with industry practice. Signed chain-of-custody documentation accompanied the project sample cooler.

Clean nitrile gloves were worn during sample collection activities, then replaced between sampling locations to minimize potential for cross contamination between sampling points. Any reusable sampling equipment was decontaminated between each sample collected using non-phosphate detergent solution (Alconox), potable water rinse, and air drying.

The groundwater samples were analyzed by Pace for chloride via EPA Method 300.0. Results are summarized in the table below and contained in the laboratory analytical report.

Well ID	Date Sampled	Time Sampled	Total Depth (ft. btoc)	Static Water Level (ft. btoc)	Calculated Purge Volume (gal)	Actual Purge Volume (gal)	Chloride Concentration (mg/L)
PMW-1	9/12/2024	10:10	140.00	42.24	47.85	48.00	1,630
PMW-2	9/12/2024	13:40	140.00	72.35	33.12	34.00	2,370
PMW-3	9/12/2024	14:55	139.50	32.97	52.14	55.00	61.9
PMW-4	9/12/2024	13:15	139.00	22.28	57.15	60.00	617

Attached are an updated base map, field notes, and the laboratory analytical report.

UES appreciates the opportunity to provide environmental services to Daylight Petroleum. If you have any questions regarding this report or need any additional information, please call.

Respectfully Submitted,
GSI Engineering, LLC, a UES Company

Kelsee Wheeler, P.G.
Director of Environmental Operations

Alex Richards, P.G.
Senior Geologist

Attachments: Map, Historical Analytical Summary, Field Notes, Laboratory Analytical Report

Attachment 1: Map

UES	FIGURE: **1.0**	FIGURE NAME: **Chloride Concentrations in Wells**	**Daylight Petroleum** **17400 410 Road** **Neodesha, Kansas**
	DATE: **09/23/2024**	PROJECT NUMBER: **23T2177.01**	
	DRAWN BY: **HS**	PROJECT MANAGER: **A. Richards**	

Feet
0 50
1 in = 50 feet

N

Legend

Monitoring Well

NS = Not Sampled
1.0 = Concentration (mg/L)

Sampled 09/12/2024

ALL BOUNDARIES AND LOCATIONS ARE APPROXIMATE

Attachment 2: Historical Analytical Summary

Table 1. Historical Groundwater Levels and Analytical Data
Daylight Petroleum - Olnhausen Injection 6
Neodesha, Kansas

Well	Date	Total Depth (ft. btoc)	Depth to Groundwater (ft. btoc)	Sampling Method	Chloride Concentration (mg/L)
PMW-1GP	12/18/23	12.25	8.55	Tubing and Ck. Valve	71.9
PMW-2GP	12/18/23	12.25	5.10	Tubing and Ck. Valve	260
PMW-3GP	12/18/23	10.00	DRY	DRY	DRY
PMW-4GP	12/18/23	10.00	DRY	DRY	DRY
PMW-1	12/07/23	140.00	53.43	Hydrasleeve (85')	34.9
	12/07/23	140.00		Hydrasleeve (139')	848
	04/29/24	140.00	41.65	Bailer	916
	06/17/24	140.00	35.85	Hydrasleeve (139')	492
	09/12/24	140.00	42.24	Hydrasleeve (139')	1630
PMW-2	12/07/23	140.00	129.34	Hydrasleeve (139')	416
	04/29/24	139.00	46.60	Bailer	1720
	06/17/24	140.00	63.73	Hydrasleeve (139')	2060
	09/12/24	140.00	72.35	Hydrasleeve (139')	2370
PMW-3	12/07/23	140.00	35.45	Hydrasleeve (85')	60
	12/07/23	140.00		Hydrasleeve (139')	262
	04/29/24	139.00	27.05	Bailer	130
	06/17/24	139.50	31.18	Hydrasleeve (139')	59.9
	09/12/24	139.50	32.97	Hydrasleeve (139')	61.9
PMW-4	12/18/23	140.00	19.35	Hydrasleeve (25')	523
	12/18/23			Hydrasleeve (85')	680
	12/18/23			Hydrasleeve (139')	546
	04/29/24	139.00	18.90	Bailer	615
	06/17/24	139.00	21.48	Hydrasleeve (139')	745
	09/12/24	139.00	22.28	Hydrasleeve (139')	617

Attachment 3: Field Notes

Field Notes - GSI Engineering

Site: Daylight Petroleum
1 mile east of Neodesha, Neodesha
Client: Daylight Petroleum

Project No: A23124.00141.001

General

Date	09/12/2024	Time	06:00
Arrival Time:	08:45	Departure Time:	15:10
Weather:	Clear 80s	Non-GSI Personel Onsite:	
Date	09/13/2024	Time	1:32 PM
Arrival Time:		Departure Time:	
Weather:		Non-GSI Personel Onsite:	

Notes

Time	Remarks:
1:32 PM	06:00 Loaded truck, ice in cooler. 06:45 To site. 08:45 On site with KCC. 09:15 Started purging PMW-1, purged 48 Gal. 10:10 Sampled. 10:25 Started purging PMW-2. Well went dry after 25 gal. Waited 20 min to recharge but had not recharged much, will return to well. 11:50 Started purging PMW-4, purged 60 Gal. 13:15 Sampled. 13:30 Returned to PMW-2, purged 9 more Gal for the total 34 gal calculated. 13:40 Sampled. 13:55 Started purging PMW-3, 14:55 sampled, purged 55 gal. KCC took split samples from all 4 wells. 15:10 off site. 17:10 Back at office. 17:30 Loaded and packed cooler, dropped off at Fedex. 18:00 Back at office.

Sign Off

Date	09/12/2024	Time	18:00
Field Lead:	Monte Brzon	Signature:	Monte B
Date	09/13/2024	Time	13:33
Signature:	Monte B		

Bailer Sampling

Site: Daylight Petroleum
1 mile east of Neodesha, Neodesha

Project No: A23124.00141.001

Project Code:	Current Business:	Leave Office:	On Site:	Leave Site:	Arrive Office:	Gear Up/ Down:	Starting Mileage:	Ending Mileage:
		06:45	06:45	15:10	17:10			

Well ID	PMW-1	PMW-2	PMW-3	PMW-4
Question				
Date	09/12/24	09/12/24	09/12/24	09/12/24
Time	08:51	10:20	13:16	11:31
Well Diameter	2 inch	2	2	2
KDHE Old Tag Number	0636716	0636720	0636734	0636793
KDHE New Tag Number	0657822	0657899	0657834	0657852
Depth to Ground Water (prior to purge)	42.24	72.35	32.97	22.28
Total Well Depth	140.00	140.00	139.50	139.00
Calculated Purge	47.85	33.12	52.14	57.15
Actual Purge	48.00	34.00	55.00	60.00
Depth to Ground Water (prior to sample)	98.00	128.42	91.34	102.35
Recharge rate (2 hours for slow recharge)	Fast	Fast	Fast	Fast
Sample Time	10:10	13:40	14:55	13:15
Appearance	Cloudy	Cloudy	Cloudy	Cloudy
Pungency	Strong	Slight	Slight	Slight
Sedimentation	Slightly	Slightly	Slightly	Slightly
Well in Good Condition?	YES	YES	YES	YES

Decontamination Procedures:		Bailers / Line Replaced:		QA/QC Procedures:
Equipment Used:		Number of Bailers Replaced:		
Non-GSI Personnel:		Weather:	Clear 90's	
Technician Signature:	[signature]	Date:	9.12.24	

Attachment 4: Laboratory Analytical Report

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

September 20, 2024

Kelsee Wheeler
UES GSI Engineering
2900 NW Button Rd
Suite A-7
Topeka, KS 66618

RE: Project: 23T2177.01 Daylight Petroleum
Pace Project No.: 60460482

Dear Kelsee Wheeler:

Enclosed are the analytical results for sample(s) received by the laboratory on September 13, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Kansas City

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Heather M. Wilson

Heather Wilson
heather.wilson@pacelabs.com
1(913)563-1407
Project Manager

Enclosures

cc: Rick Bean, UES GSI Engineering

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: 23T2177.01 Daylight Petroleum
Pace Project No.: 60460482

Pace Analytical Services Kansas
9608 Loiret Boulevard, Lenexa, KS 66219
Arkansas Certification #: 88-00679
Illinois Certification #: 2000302023-6
Colorado Division of Oil and Public Safety
Iowa Certification #: 118
Kansas Field Laboratory Certification #: E-92587
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Missouri Inorganic Drinking Water Certification
Nevada Certification #: KS000212024-1
Oklahoma Certification #: 2023-073
Texas Certification #: T104704407-23-17
Utah Certification #: KS000212022-13

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: 23T2177.01 Daylight Petroleum
Pace Project No.: 60460482

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60460482001	**PMW-1**	Water	09/12/24 10:10	09/13/24 09:00
60460482002	**PMW-2**	Water	09/12/24 13:40	09/13/24 09:00
60460482003	**PMW-3**	Water	09/12/24 14:55	09/13/24 09:00
60460482004	**PMW-4**	Water	09/12/24 13:15	09/13/24 09:00

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: 23T2177.01 Daylight Petroleum
Pace Project No.: 60460482

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60460482001	**PMW-1**	EPA 300.0	PL	1	PASI-K
60460482002	**PMW-2**	EPA 300.0	PL	1	PASI-K
60460482003	**PMW-3**	EPA 300.0	PL	1	PASI-K
60460482004	**PMW-4**	EPA 300.0	PL	1	PASI-K

PASI-K = Pace Analytical Services - Kansas City

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 23T2177.01 Daylight Petroleum
Pace Project No.: 60460482

Sample: PMW-1 **Lab ID: 60460482001** Collected: 09/12/24 10:10 Received: 09/13/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City							
Chloride	**1630**	mg/L	200	200		09/16/24 10:54	16887-00-6	M1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 23T2177.01 Daylight Petroleum
Pace Project No.: 60460482

Sample: PMW-2 **Lab ID: 60460482002** Collected: 09/12/24 13:40 Received: 09/13/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City							
Chloride	**2370**	mg/L	200	200		09/16/24 12:03	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 23T2177.01 Daylight Petroleum
Pace Project No.: 60460482

Sample: PMW-3 **Lab ID: 60460482003** Collected: 09/12/24 14:55 Received: 09/13/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City							
Chloride	**61.9**	mg/L	20.0	20		09/16/24 12:17	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 23T2177.01 Daylight Petroleum
Pace Project No.: 60460482

Sample: PMW-4 **Lab ID: 60460482004** Collected: 09/12/24 13:15 Received: 09/13/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Kansas City							
Chloride	**617**	mg/L	200	200		09/16/24 12:31	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 23T2177.01 Daylight Petroleum
Pace Project No.: 60460482

QC Batch: 908616 | Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 | Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60460482001, 60460482002, 60460482003, 60460482004

METHOD BLANK: 3596446 Matrix: Water
Associated Lab Samples: 60460482001, 60460482002, 60460482003, 60460482004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	09/16/24 08:12	

LABORATORY CONTROL SAMPLE: 3596447

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.7	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3596448 3596449

Parameter	Units	60460482001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1630	1000	1000	1980	1780	34	15	80-120	10	15	M1

MATRIX SPIKE SAMPLE: 3596450

Parameter	Units	60460513006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	6760	2500	9880	125	80-120	M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: 23T2177.01 Daylight Petroleum
Pace Project No.: 60460482

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 23T2177.01 Daylight Petroleum
Pace Project No.: 60460482

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60460482001	**PMW-1**	EPA 300.0	908616		
60460482002	**PMW-2**	EPA 300.0	908616		
60460482003	**PMW-3**	EPA 300.0	908616		
60460482004	**PMW-4**	EPA 300.0	908616		

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sampl	WO# : 60460482
	Revision: 2	Effective Date: 01/12/202

Client Name: Universal Engineering - dba GSI_Topeka

Courier: FedEx ☑ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: 4033 6449 4438 Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☑ Bubble Bags ☐ Foam ☐ None ☐ Other ☑ ZPLC

Thermometer Used: T298 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 0-6 **Corr. Factor** -0.1 **Corrected** 0-5

Date and initials of person examining contents: 9/13/24 JA

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:**	☐Yes ☐No ☑N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Pace® Location Requested (City/State):
Pace Analytical Kansas
9608 Loiret Blvd., Lenexa, KS 66219

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

60464482

Scan QR Code for instructions

Company Name:	Universal Engineering - dba GSI_Topeka	Contact/Report To:	Kelsee Wheeler
Street Address:	2900 NW Button Rd Suite A-7 Topeka, KS 66618	Phone #:	(785)409-1320
		E-Mail:	kwheeler@teamues.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	23T2177.01 Daylight Petroleum	Invoice To:	Accounts Payable
		Invoice E-Mail:	gsiap@teamues.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	23T2177.01
		Quote #:	UES Fee Schedule

Time Zone Collected: [ ] AK [ ] PT [ ] MT [/] CT [ ] ET

County / State origin of sample(s): Kansas

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	300.0 Chloride
PMW-1	WT	G			9.12.24	10:10	1			X
PMW-2	WT	G			9.12.24	13:40	1			X
PMW-3	WT	G			9.12.24	14:55	1			X
PMW-4	WT	G			9.12.24	13:15	1			X

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Heather Wilson
AcctNum / Client ID:
Table #:
Profile / Template: 9907
Prelog / Bottle Ord. ID: EZ 3152893

Sample Comment

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:

Collected By: (Printed Name) Monte Bacon
Signature: Monte Bacon

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
	T298	-0.1	0.6	0.5	

	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Relinquished by/Company: (Signature) Monte Bacon / UES	9.12.24 / 17:00	JAPAC	9/13/24 0900	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

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Client: Universal Engineering - Lba GSI_Topeka Profile/EZ # 9907 EZ: 3152893

Site: 23T2177.01 Daylight Petroleum Notes

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3B	BP3Z	WPDU	ZPLC	Other		
1	WT																				1											
2																																
3																																
4	↓																				↓											
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass				Plastic		Misc.	
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1B	1L NAOH plastic	I	Wipe/Swab
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	C	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2B	500mL NAOH plastic	R	Terracore Kit
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic		
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate	Matrix	
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic		
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered	WT	Water
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	SL	Solid
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic	OL	OIL
		AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate	WP	Wipe
				BP4U	125mL unpreserved plastic	DW	Drinking Water
				BP4N	125mL HNO3 plastic		
				BP4S	125mL H2SO4 plastic		
				WPDU	16oz unpresserved plstic		

Work Order Number: 60460482

CERTIFICATE OF SERVICE

25-CONS-3040-CMSC

I, the undersigned, certify that a true copy of the attached Pre-Filed Testimony of Julie Shaffer has been served to the following by means of electronic service on November 1, 2024.

KEITH A. BROCK, ATTORNEY
ANDERSON & BYRD, L.L.P.
216 S HICKORY
PO BOX 17
OTTAWA, KS 66067
kbrock@andersonbyrd.com

KELCEY MARSH, LITIGATION COUNSEL
KANSAS CORPORATION COMMISSION
CENTRAL OFFICE
266 N. MAIN ST, STE 220
WICHITA, KS 67202-1513
kelcey.marsh@ks.gov

JONATHAN R. MYERS, ASSISTANT GENERAL COUNSEL
KANSAS CORPORATION COMMISSION
266 N. Main St., Ste. 220
WICHITA, KS 67202-1513
jon.myers@ks.gov

TROY RUSSELL
KANSAS CORPORATION COMMISSION
DISTRICT OFFICE NO. 3
137 E. 21ST STREET
CHANUTE, KS 66720
troy.russell@ks.gov

/S/ Paula J Murray
Paula J Murray