



## Preliminary Ignition Investigation Report

Ignition Database Index:	20241397
Electric Incident Investigation (EII) Number:	N/A
Incident Name:	Pinnacles - 27 Sep 2024
PG&E Facility Ignition?	Yes
CPUC Reportable Ignition?	Yes
Date & Time of Incident:	September 27, 2024 @ 1407 hours
Street Address:	In the vicinity of 31100 Pinnacles Road Highway 146
City:	Paicines
County:	San Benito
Latitude/Longitude:	36.4982968028, -121.1405433831
State Responsibility Area (SRA) / Local Responsibility Area (LRA) / Federal Responsibility Area (FRA)	Federal Responsibility Area (FRA)
PG&E Division:	Central Coast
High Fire Threat District (HFTD):	Tier 2
High Fire Risk Area (HFRA):	Yes
EPSS Buffer:	No
Fire Index Area (FIA):	545
Fire Potential Index (FPI) Rating: FIA	R3
Fire Potential Index (FPI) Rating: Circuit	R3
Was there a PSPS event at the time of ignition?	No
Suspected Initiating Event:	Vegetation
Failure Driver:	Contact from object
Failure Sub-driver:	Contact – Vegetation
Circuit:	Hollister 2105
Circuit Protection Zone:	Hollister 210515486
Nominal Voltage:	12kV
Pole SAP Equipment ID:	SAP pole ID: 101690175 (load side) replaced with new pole SAP ID: 104228225. SAP pole ID: 101690176 (source side)
Subject to PRC 4292 Veg Pole Clearance:	No
PG&E Equipment associated with ignition:	2ACSR Conductor - Primary
EPSS enabled at time of ignition?	Yes
Fault Type:	Line to ground
Wire Down (Primary)?	Yes
Lead Agency/Agency Having Jurisdiction:	CAL FIRE
Fire Size:	16.8 acres (based on HAWC summary)
FAS Field Remarks:	replace the pole and one span of wire

<b>HAWC Summary:</b>	Resources responded to a vegetation fire, the Pinnacles Incident. It was located at Hwy 146 south of Hwy 25 in San Benito County. This is a Tier 2 area. The fire was listed as forward progress stopped. The fire size was last listed as 16.8 acres. There was an outage associated with this incident. The outage was on the Hollister 2105 circuit with 239 customers impacted. The OIS number was- 2579522. The closest circuit was the Hollister 2105, it was an EPSS circuit.
<b>Injuries / Fatalities / Property Damage / Media Attention:</b>	No Injuries/No Fatalities/ /No Media Attention. Burnt and damaged fence posts and fencing wire were documented in the Vegetation Management (VM) Fire Incident Investigation Report (FIIR). No claims have been received by PG&E as of October 21, 2024.
<b>Weather Conditions:</b>	It was a hot and dry day at 95.8°F @ 1410 hours on September 27, 2024, near the Incident Location.
<b>Red Flag Warning (RFW) / High Wind Warning (HWW):</b>	No/No
<b>911 Standby Relief Time:</b>	11 Minutes
<b>OIS #:</b>	2579522
<b>ILIS #:</b>	24-0116727
<b>FAS #:</b>	T006511821
<b>TOTL #:</b>	N/A
<b>Assigned Attorney:</b>	N/A
<b>Ignition Investigator &amp; Phone:</b>	

## Executive Summary

On September 27, 2024, at 1412 hours, PG&E dispatched a troubleshooter in response to multiple SmartMeter™ auto-generated complete outage reports that registered at 1407 hours in the vicinity of 31100 Pinnacles Road Highway 146, Paicines CA. The ignition occurred on a two-phase primary overhead segment of the Hollister 2105 12kV Distribution Circuit (see Figures 1 and 2), in a Tier 2 HFTD, High Fire Risk Area (HFRA), Federal Responsibility Area (FRA), during Fire Potential Index (FPI) R3 conditions. PG&E's Enhanced Powerline Safety Settings (EPSS) were enabled for this circuit at the time of the incident.

The Field Automation System (FAS) record states that the PG&E troubleshooter arrived on scene at approximately 1454 hours and observed a fire. The troubleshooter indicated that a treetop fell onto the primary line conductor causing arcing and burned vegetation below. The troubleshooter also observed that one of two, Aluminum Conductor Steel Reinforced (ACSR) phases came down causing a nearby SAP pole ID 101690175 to get burnt, needing replacement. The first detection of smoke came through on the Alert California Mount Helen 2 wildfire camera [here](#) at 1406 hours on September 27, 2024, (see Figures 3, 4, 5, and 6).

The fire is listed as the Pinnacles Fire in the Hazard Awareness Wildfire Command (HAWC) fire activity report. The ensuing fire spread to approximately 16.8 acres (based on the HAWC summary) in size and was suppressed by CAL FIRE on September 27, 2024.

The PG&E repair crew arrived onsite at 1349 hours on September 28, 2024, to replace a burnt pole, and one span of broken conductor on SAP Pole ID 101690175 (load side), which was part of the electric corrective (EC)-Priority A-Tag # 129599989. All work was completed by the repair crew by 1817 hours (per the ILIS record), on September 28, 2024.

Meteorology data pulled from the MesoWest weather observation site that was approximately 0.2 miles northeast of the Incident Location indicates that it was a hot and dry day at 95.8°F with a relative humidity of 16%. Winds registered 1.8 Miles Per Hour (MPH) with gusts up to 4.9 MPH out of the north-northwest at the approximate time of the incident. Relative humidity was as high as 88% at 0650 hours and as low as 15% at 1500 hours.

A post-incident investigation was performed by a vegetation management inspector (VMI) on October 1, 2024, near the Incident Location. The VMI observed a live gray pine (*Pinus sabiniana*) tree with a diameter at breast height (DBH) of 45 inches and a height of 97 feet, located 45 feet southeast of the conductors that had failed, (see figures 7 and 8). The Incident Tree was still standing with a lean parallel to the lines. The gray pine tree had a codominant top, with signs of multiple failed stems 24 feet above ground level. One major codominant top stem failed near the union and fell in the direction of the conductors, the other stems fell away in another direction. The VMI noted that no cavities or additional defects were found.

An extent of condition (XoC) investigation was performed by the same VMI on October 1, 2024. The VMI patrolled five spans in each direction and identified 14 trees for priority two (P2) work during the XoC patrol. Ten trees had structural issues related to fire damage. Six trees were identified as non-compliant with minimum tree-conductor distance requirements due to post-ignition electric facility reconstruction. (see Figures 9 and 10).

The Incident Location is located within an SRA. A search of VM records identified April 29, 2024, as the last inspection date. According to these records, the tree has never been prescribed for utility pruning work. A proximity search was performed in the Enhanced Vegetation Management (EVM) database and no trees were within a 1/8-mile radius of the coordinates provided for this incident.

During this investigation, a search of the incident tree on Sharper Shape identified inspection photos from June 29, 2019, showing a prior limb failure with a visible wound on the main stem (see Figures 11, 12, and 13).

### System Protection Analysis

PG&E's Distribution Asset Planning team confirmed that EPSS was enabled for the Incident Location segment of the Hollister 2105 12kV Distribution Circuit on September 27, 2024. Line recloser (LR) 4018 and LR 15486 were enabled with Sensitive Ground Fault (SGF) and Down Conductor Detection (DCD) protection. Both LR 4018 and LR 15486 detected a DCD event at approximately 1404 hours. LR 4018 automatically operated on (DCD) clearing the high impedance fault. The recorded fault magnitude (RMS) on phase A was 35 Amps, phase B: 31 Amps, phase C: 31 Amps & Ground 8.8 Amps. No Partial Voltage (PV) alarms were registered for this ignition. This fault was recorded as a high-impedance fault and wire-down event.

## Ignition Impact

This ignition on September 27, 2024, resulted in a vegetation fire that was 16.8 acres (based on the HAWC summary) in size. The associated outage from this fire affected a total of 239 customers for a total of 88,577 customer minutes. PG&E is not aware of any injuries, fatalities, or media attention, associated with this ignition, however, burnt and damaged fence posts and fencing wire were documented in the VM FIIR. No claims have been received by PG&E as of October 21, 2024.

## Sequence of Events

September 27, 2024

- 1404 hours: SmartMeter™ last gasp detected.
- 1406 hours: First detection of smoke on the Mount Helen 2 wildfire camera.
- 1407 hours: First No Light (FNL) – multiple SmartMeter™ auto-generated complete outage reports registered – Line recloser (LR) 4018 open (239 customers affected by the outage).
- 1412 hours: PG&E dispatched a troubleshooter, Per FAS record and Outage Dispatch Tool (ODT).
- 1423 hours: LR 15488 opened.
- 1454 hours: Troubleshooter arrived onsite (Per FAS Record).
- 1459 hours: LR 4018 closed (Per ILIS record), 108 customers power restored.
- 1632 hours: LR 15488 closed (89 additional customers restored per ILIS Record).

September 28, 2024

- 1012 hours: PG&E Repair crew dispatched (per ODT).
- 1349 hours: PG&E Repair crew arrives onsite, (per ODT).
- 1445 hours: The repair crew was given the okay to begin working on all repairs.
- 1755 hours: Fuse 4257 was closed by the repair crew (An additional 42 customers were restored Per ILIS Record) 239 customers were now fully restored.
- 1817 hours: The repair crew reported all work completed (per the ILIS record).

## Corrective Notification Associated with Ignition

EC priority A tag 129599989 was created to replace the pole and one span (400 feet) of 2-ACSR Conductor on SAP pole ID 101690175 (load side). All repair work was completed by the PG&E repair crew by 0545 hours, on September 29, 2024.

## Pending Work

Type	Number	Description	Priority	Date Identified	Due Date
EC Notification	N/A				
COE Notification	N/A				
LC Notification	N/A				
Veg Work Order	Rx-03529930 Rx-03529037 Rx-03529032 Rx-03529029 Rx-03529042 Rx-03529043	14 trees were identified during the EOC patrol. Ten trees had structural issues related to fire damage. Six trees were identified as non-compliant with minimum tree-conductor distance requirements	P2	October 1, 2024	January 20, 2025

Please note this may not include pending major program or project work at the incident location.

## Asset Info & Most Recent Inspections and Tests

<b>Load Side Structure</b>	<b>The incident pole (101690175) was replaced with a new pole (SAP pole ID: 104228225)</b>	
<b>Info / Inspection</b>	<b>Most Recent Date</b>	<b>Findings</b>
Install Date:	September 27, 2024	Wood pole – Class 3 – Height 45’
Inspection:	April 4, 2024	GO165 aerial inspection – No declaration items were reported.
	June 21, 2023	GO165 ground inspection – No declaration items were reported.
Patrol:	N/A	
	N/A	
Corrective History:	September 27, 2024	EC priority “A” Tag (#129599989) was created to replace the pole and one span (400 feet) of ACSR Conductor
Aerial Inspection Records:	June 29, 2019	There were no Compelling abnormal conditions for the Pole, equipment, and its associated spans. The incident tree showed a prior failed limb with a fresh wound on the codominant top. This limb failure was never identified in past VM inspections, (see Figures 11, 12, 13, 14, and 15).
VM Inspection:	April 29, 2024	No work was identified.
EVM Inspection:	N/A	
Equipment Test:	N/A	
Pole Intrusive Test:	N/A	New pole was installed on September 27, 2024, (incident date).
WSIP Inspection:	May 16, 2019	EC priority “E” Tag (#117250285) was created to replace the pole due to rotten pole top, splitting and cracks throughout,

		woodpecker damage, and Lapp Insulators with a due date of May 16, 2020. EC priority "E" Tag (#117250285) was still open and not worked as of the incident date.
--	--	---

\*Incident Location: SAP Pole ID: 101690175 was replaced with a new pole (SAP Pole ID: 104228225) on the incident date.

Source Side Structure	SAP Pole ID: 101690176	
Info / Inspection	Most Recent Date	Findings
Install Date:	January 1, 1977	Douglas fir – Class 5 – Height 35'
Inspection:	April 4, 2024	GO165 Aerial Inspection – declaration items were reported, but no priority tag was created.
	June 22, 2023	GO165 Ground Inspection – No declaration items were reported.
Patrol:	N/A	
	N/A	
Corrective History:	May 16, 2019	EC priority "E" Tag (#117250279) was created to replace the pole due to large deep cracks throughout, woodpecker damage, and decaying wood with a due date of May 16, 2020. EC priority "E" Tag (#117250279) was still open and not worked as of the incident date.
Aerial Inspection Records:	June 29, 2019	There were no Compelling abnormal conditions for the Pole, equipment, and its associated spans. The incident tree showed a prior failed limb with a fresh wound on the codominant top. This limb failure was never identified in past VM inspections, (see Figures 11, 12, 13, 14, and 15).
VM Inspection:	April 29, 2024	No work was identified.
EVM Inspection:	N/A	
Equipment Test:	N/A	
Pole Intrusive Test:	December 7, 2021	Passed with 99% wood strength remaining
WSIP Inspection:	May 16, 2019	EC priority "E" Tag (#117250279) was created to replace the pole due to large deep cracks throughout, woodpecker damage, and decaying wood with a due date of May 16, 2020. EC priority "E" Tag (#117250279) was still open and not worked as of the incident date.

\*Incident Location: SAP Pole ID: 101690176

### Hazard Barrier Analysis:

Hazard	Vegetation Contact	Sub-Hazard	Codominant Top/Stem
Target	A Codominant Top/Stem that fell into a primary line that caused a fire		

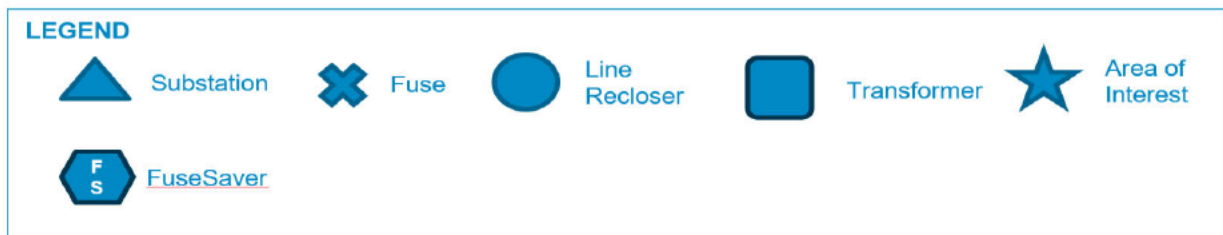
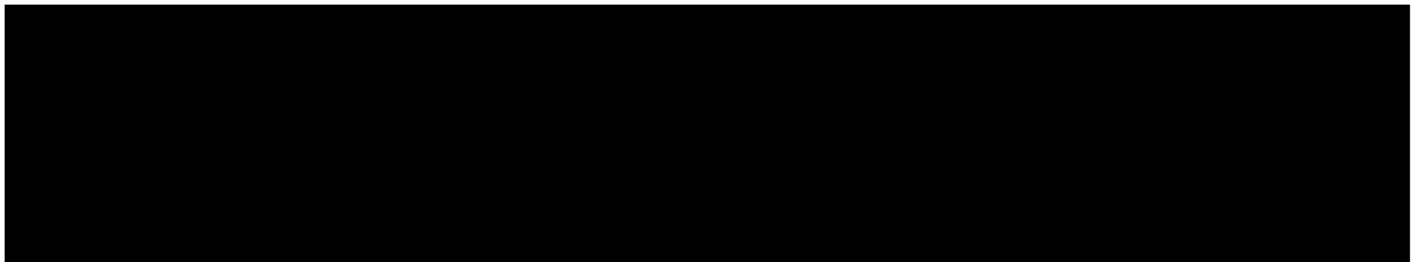


Barrier	Expected vs. Observed Performance	Why did the barrier not prevent the ignition event? (See <a href="#">ICF Codes</a> )	Opportunity
Barriers that Negatively Affected Ignition			
Distribution Annual Vegetation Patrol	Expected Performance: Annual visual inspection to identify trees that may fall into or contact the line dead, decayed, or diseased trees, or dead, rotten, or diseased portions of otherwise healthy trees that overhang or lean toward the line; Observed Performance: Barrier did not perform as expected.	[ A3B1C1D2 – Required work not identified ]	A search of the incident tree on Sharper Shape identified inspection photos from June 29, 2019, showing a prior limb failure with a visible wound on the main stem.
Barriers that Positively Affected Ignition			
Enhanced Powerline Safety Settings - Downed Conductor Detection	Expected Performance: Automatically turn off power when a downed conductor is detected.  Observed Performance: Barrier performed as expected	A1B2C2D3 – Device tripping time is limited	DCD tripped, limiting fault current and ignition potential
Wildfire and Smoke Detection Cameras	Expected Performance: Enable faster response through detection of wildfires and smoke via standard and AI-enabled cameras  Observed Performance: Barrier performed as expected	N/A	Ignition was first identified by Wildfire Cameras
Barriers that were Assessed as Opportunities			
Covered Conductor on Primary Conductors	Expected Performance: Covered conductors should lower the risk of a wildfire.  Observed Performance: Barrier did not exist	A4B2C1D2 – Program limited to certain conductors	Covered Conductor on Primary Conductors
Level 2 Basic Tree Assessment	Expected Performance: Arborists walk completely around a tree and look for defects in all visible areas of a tree.  Observed Performance: Barrier did not exist	N/A	Level 2 Basic Tree Assessment may have identified the incident tree prior to the incident due to Codominant stems.

### Potential Next Steps / Associated CAP Items:

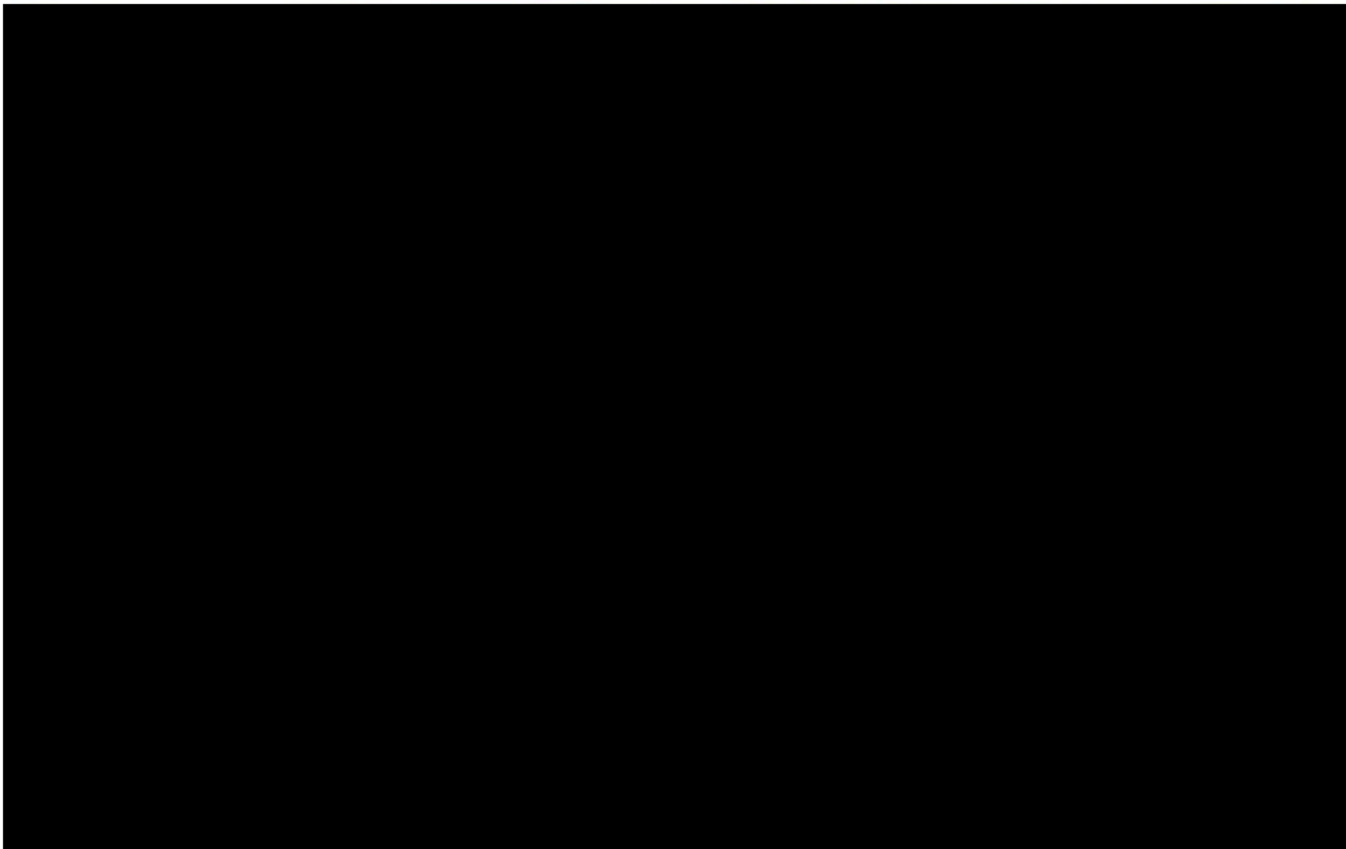
- 14 P2 trees were identified during the EOC patrol. Ten trees had structural issues related to fire damage. Six trees were identified as non-compliant with minimum tree-conductor distance requirements. This work has a due date of January 20, 2025.

### Single Line Diagram

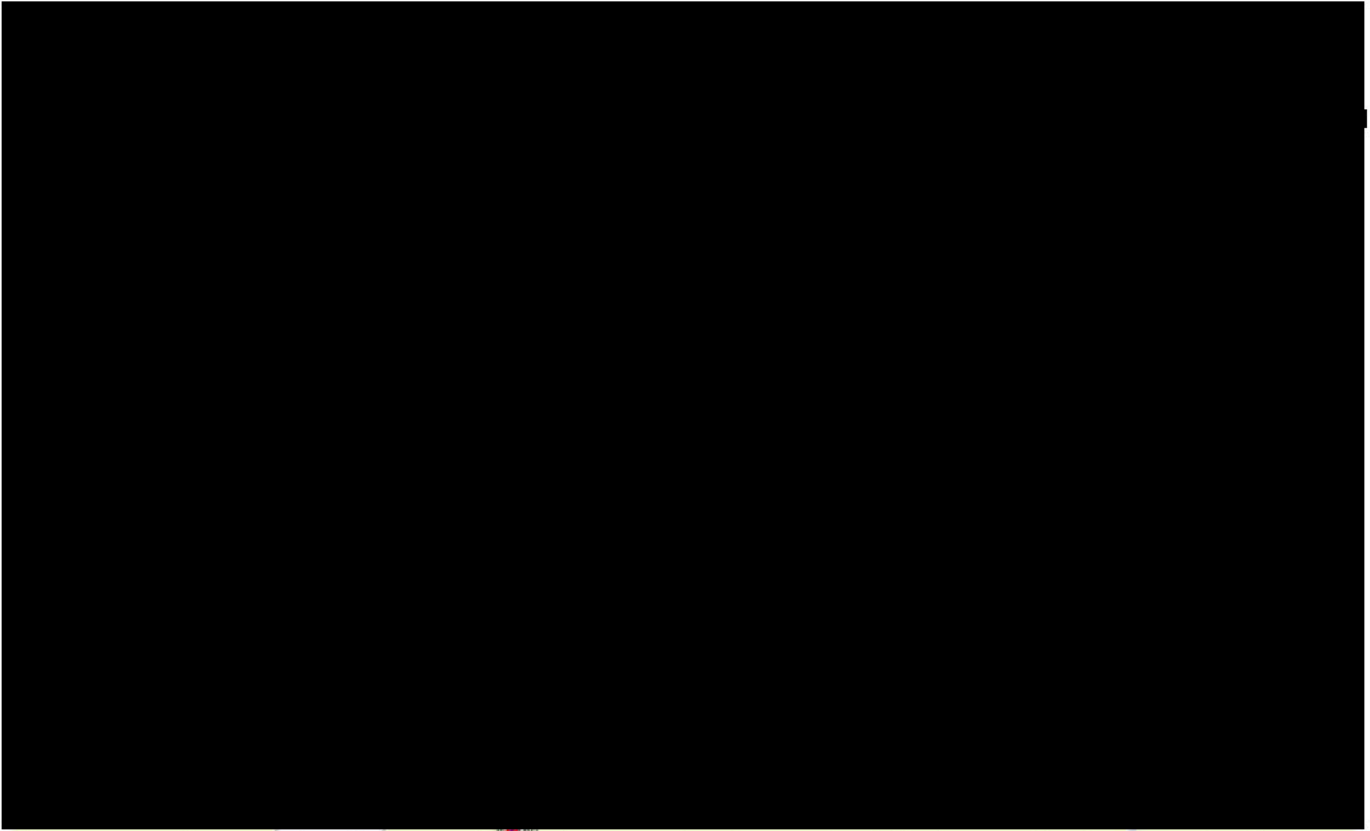


### Photos and Diagrams of Events





*Figure 1 - Google Earth diagram of the Hollister 2105 Circuit. The location of the fire is approximate and based on reports and pictures provided.*



*Figure 2 - EDGIS diagram of the Hollister 2105 Circuit and upstream dynamic protective devices between the Substation and Incident Location (Load side) SAP Pole ID: 101690175.*

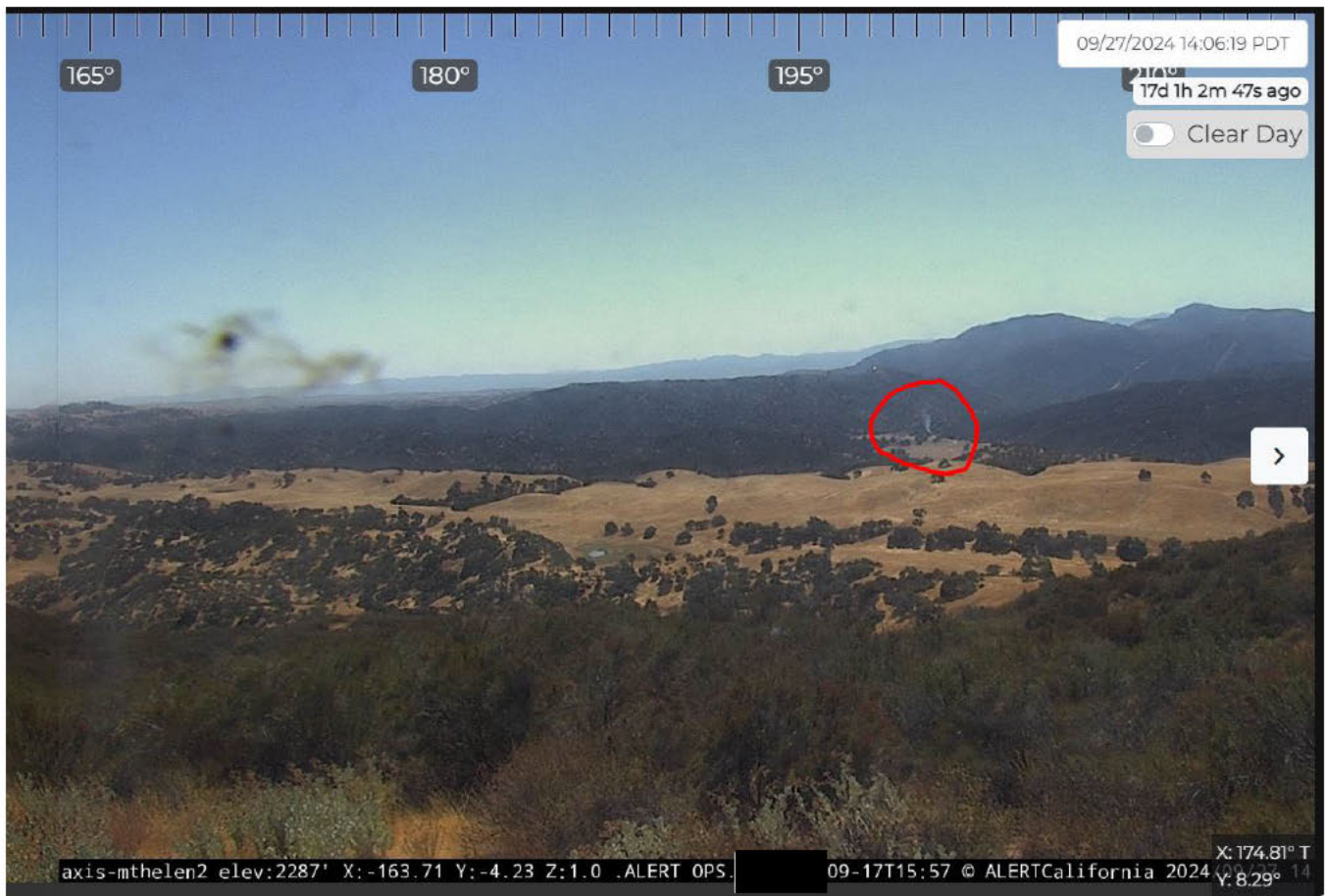


Figure 3 - First detection of smoke on the Mount Helen 2 wildfire camera @ 1406 hours on September 27, 2024.



Figure 4 – Brunt and damaged pole SAP pole ID 101690175 (load side). Picture taken by the troubleshooter on September 27, 2024



Figure 5 – Close-up of the broken SAP pole ID 101690176 (source side). Picture taken by the troubleshooter on September 27, 2024





Figure 6 - Fire burn scar area around SAP pole ID 101690176 (source side). Picture taken by the troubleshooter on September 27, 2024.

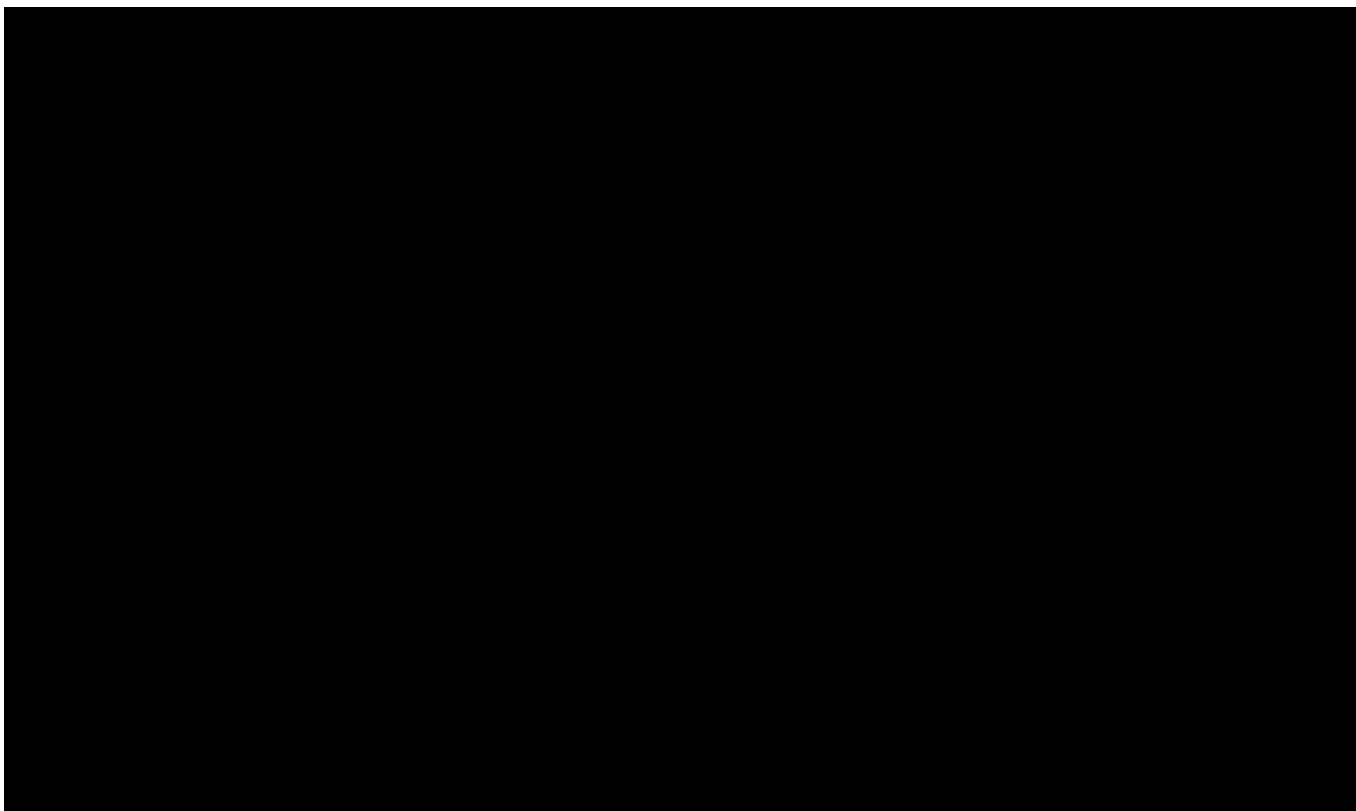


Figure 7 - Incident tree, failure at 24 feet above ground level, picture taken by the VMI inspector on October 1, 2024





*Figure 8 - Incident tree at break point, picture taken by the VMI inspector on October 1, 2024.*



*Figure 9 - Five-span patrol completed by the VMI on October 1, 2024.*

Corrective Action (If none are identified, put N/A):						
Corrective Action are trees that will be worked due to being currently out of compliance or anticipated to be out of compliance prior to the next patrol cycle. Corrective Action priority assigned shall be in accordance with <a href="#">TD-7102P-17, "Priority Tree Procedure"</a>						
Tree Number	(P1/P2)	Tree Description (Species, DBH, etc.)	Work prescription	Work Request Number	Forecast completion date	Actual completion date (when available)
Rx-03529915	P2	Grey Pine 31"dbh 70'ht <b>Fire Damaged</b>	Major Dismantle R3		1/20/25	Click or tap to enter a date.
Rx-03529914	P2	Willow 28"dbh 55'ht <b>Fire Damaged</b>	Major Dismantle R3		1/20/25	Click or tap to enter a date.
Rx-03529917	P2	Willow 40"dbh 50'ht <b>Fire Damaged</b>	Major Dismantle R4		1/20/25	Click or tap to enter a date.
Rx-03529918	P2	Coast Live Oak 23"dbh 50'ht <b>Fire Damaged</b>	Major Dismantle R2		1/20/25	Click or tap to enter a date.
Rx-03529920	P2	Coast Live Oak 41"dbh 48'ht <b>Fire Damaged</b>	Major Dismantle R4		1/20/25	Click or tap to enter a date.
Rx-03529922	P2	Coast Live Oak 26"dbh 48'ht <b>Fire Damaged</b>	Target Prune R3		1/20/25	
Rx-03529924	P2	Grey Pine 11"dbh 38'ht <b>Fire Damaged</b>	Major Dismantle R1		1/20/25	
Rx-03529926	P2	Grey Pine 23"dbh 28'ht <b>Fire Damaged</b>	Major Dismantle R2		1/20/25	
Rx-03529930	P2	Black Walnut 25"dbh 30'ht <b>Non-compliant</b>	Radial Trim 12'+		1/20/25	
Rx-03529037	P2	Coast Live Oak 11"dbh 35'ht <b>Non-compliant</b>	Major Dismantle R1		1/20/25	
Rx-03529032	P2	Willow 32"dbh 64'ht <b>Non-Compliant &amp; Fire Damaged</b>	Major Dismantle R3		1/20/25	
Rx-03529029	P2	Coast Live Oak 43dbh 50'ht <b>Non-Compliant &amp; Fire Damaged</b>	Major Dismantle R4		1/20/25	
Rx-03529042	P2	Coast Live Oak 27"dbh 45'ht <b>Non-compliant</b>	Radial Trim 12'+		1/20/25	
Rx-03529043	P2	Sycamore 22"dbh 50'ht <b>Non-compliant</b>	Radial Trim 12'+		1/20/25	

Figure 10 - Eight trees were identified as fire-damaged, and six trees were identified as non-compliant and listed for work.





*Figure 11 - Incident tree, with a large gray pine limb laying down on the ground against the incident tree, picture taken from Sharper Shape dated June 29, 2019.*



Figure 12 - Incident tree, picture taken from Sharper Shape dated June 29, 2019.





Figure 13 - The incident tree on Sharper Shape discovered a prior limb failure with a visible fresh wound on the codominant top, dated June 29, 2019. This limb failure was never identified in past VM inspections.



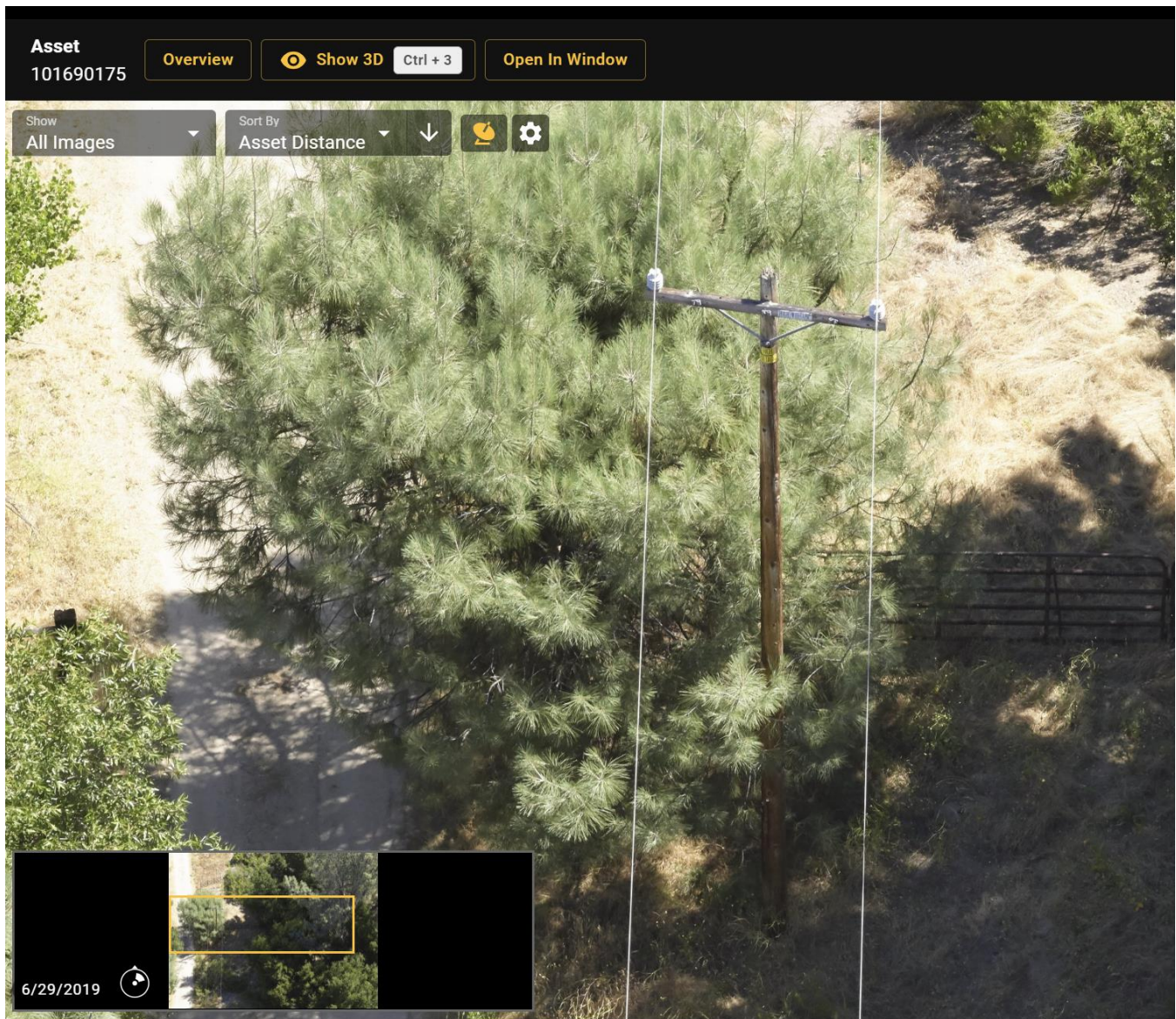


Figure 14 - SAP Pole ID: 101690175 (Load Side), picture taken from Shaper Shape dated June 29, 2019



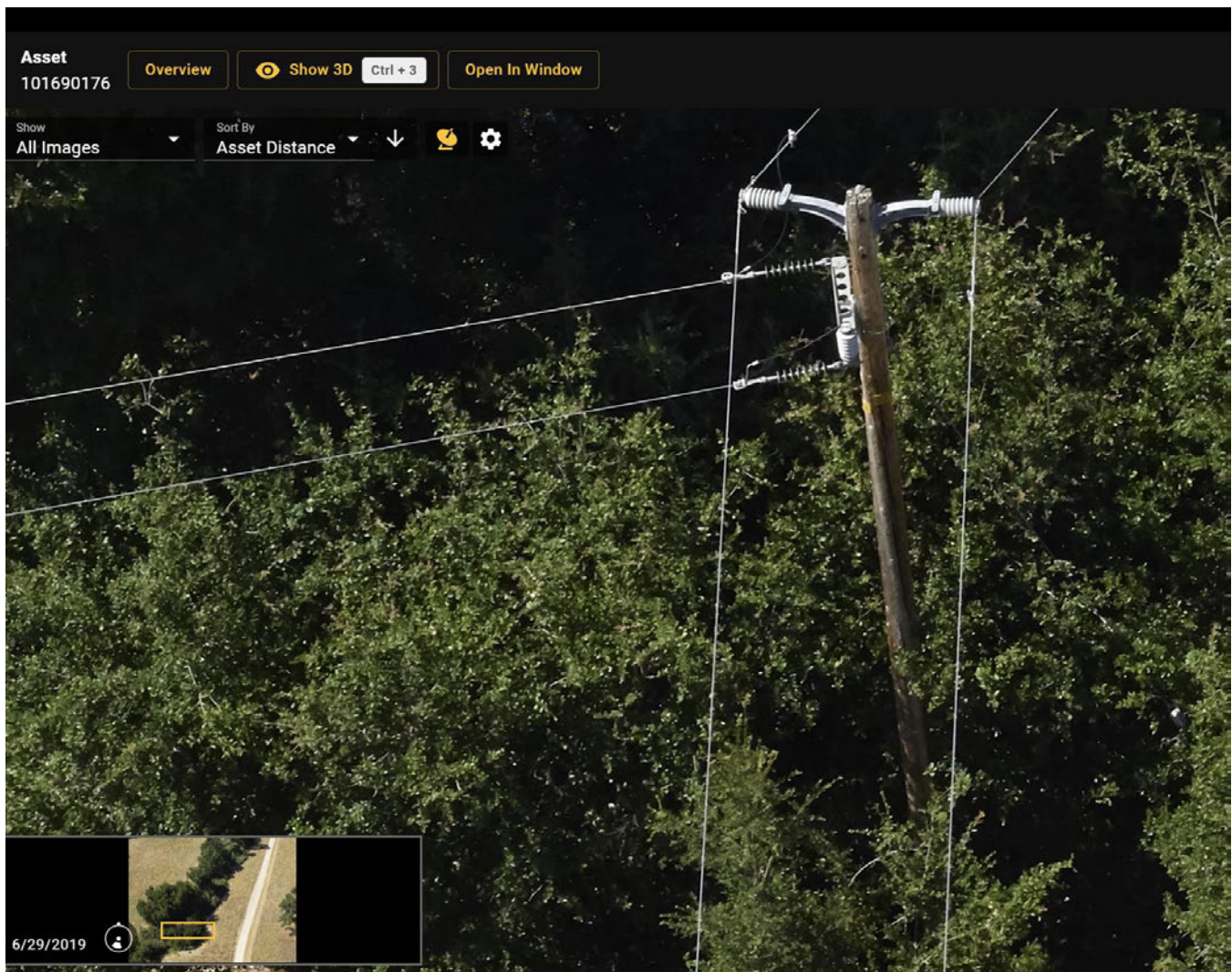


Figure 15 - SAP Pole ID: 101690176 (Source Side), picture taken from Shaper Shape dated June 29, 2019

## Attachments

Attachments and references can be located in the ESA folder, located below:

[REDACTED]

-----END of REPORT-----