

9- NARRATIVE***First Report of Fire***

On October 22, 2007, W-1 Julie GAUTHIER was driving southbound on Cajon Boulevard, and when she was near Kenwood Avenue and Cajon Boulevard she observed a large "blue ball of light" emitting from the top of a power pole located near the intersection. She estimated the light traveled five feet away from the top of the pole, and she described the blue ball of light as an "arc". Seconds after she witnessed the arc, a fire started on the ground near the power pole, and she described the fire spread as "really quick". W-2 Melissa GAUTHIER was a passenger in the same vehicle, and after she heard her mother-in-law exclaim "Did you see that!", or "Look at that", she saw the fire starting. The area they were looking at was approximately 150 yards away with a clear line of sight. Melissa GAUTHER used her cellular telephone to call 9-1-1, and she reported the arcing power pole and fire. San Bernardino County Communications Center received the call at 11:29 a.m., (refer to W-12 FRICK'S MOI with W-1 Julie GAUTHIER and W-2 Melissa Gauthier).

Assignment

On October 22, 2007, at about 11:35 a.m., I monitored fire traffic over the radio at my headquarters office located at 3800 North Sierra Way in the City of San Bernardino. I notified my dispatch center I was responding to the fire, and I photographed the smoke conditions I could see while enroute to the fire. The smoke was heavy dark grey colored smoke blowing towards the southeast. The winds were blowing strongly, and I passed two locations along Kendall Drive where the San Bernardino Police had controlled traffic to one lane due to large trees having fallen down because of the strong winds.

Arrival

At about 11:51 a.m., I arrived in the area on northbound Interstate 15 just southeast of Kenwood Avenue and parked next to the center medium and observed the fire was burning along its south side and along the south side of the southbound lanes. I took a picture of the fire and then exited onto Kenwood Avenue.

At about 11:54 a.m., I arrived in the area southeast of the intersection of Kenwood Avenue and Cajon Boulevard. There was a metal gate for restricting public traffic from entering Cajon Boulevard immediately southeast of Kenwood Avenue, and it was in the open position. I drove through and parked my vehicle on the east side of the gate, and I saw there were several Southern California Edison vehicles parked on the west side of it where Kenwood Avenue and Cajon Boulevard form a T-intersection.

I exited my vehicle to take photographs of the fire's backward spread. At about 12:00 p.m., I used a handheld weather instrument to take weather observations and recorded the temperature was 68.6 degrees Fahrenheit, and the relative humidity was 4.2 percent. The wind speed was steady at 20 miles per hour with gusts to 31 miles per hour, and it was blowing from the northwest.

1 Initial Status of Power Lines

2 There were power poles in and around the fire lined up in a northwest to a
3 southeast direction. I monitored my radio and heard the fire's incident commander
4 inquiring about the status of the power lines. At about 12:05 p.m., I drove back outside
5 the metal gate and made contact with W-3 EMORY, Lineman, who was sitting in his
6 Southern California Edison utility vehicle parked next to the gate, and I asked him if the
7 conductors were still energized. He said the top lines were 33kV transmission lines, and
8 they were not energized, but the bottom 12kV distribution lines were. I returned to my
9 vehicle to call the incident commander to report the status of the power lines but was
10 unable to get him on the radio. At about 12:10 p.m., EMORY approached me on foot and
11 said the bottom 12kV distribution lines were now de-energized because something
12 caused the circuit to trip.

13 Contact with W-4 GOLDSCHMIDT (USFS) and W-5 HOLMES (Water Tender Driver)

14 I decided to find the incident commander to relay this information, so I drove
15 back onto southbound Interstate 15 from Kenwood Avenue. The California Highway
16 Patrol had the southbound traffic stopped there. I passed the stopped traffic and saw a
17 person with a water tender on the northbound Interstate 15 center medium extinguishing
18 burning vegetation. I also saw W-4 GOLDSCHMIDT parked facing northbound in the
19 southbound lanes where traffic was stopped, and I got out of my vehicle to talk to him,
20 but he was giving instructions to fire personnel, so I drove over to the water tender at the
21 center medium and made contact with W-5 HOLMES.
22

23
24 At about 12:15 p.m., I identified myself to W-5 HOLMES and asked him if he
25 had been in the area when the fire started. In essence he provided the following
26 information: HOLMES was driving his company water tender, which was empty of
27 water, southbound along Cajon Boulevard and was approaching Kenwood Avenue when
28 he saw a fire, that he estimated to be 50-feet in diameter, burning in the brush located
29 near the large metal storage container on the edge on Cajon Boulevard inside of the metal
30 gate. He said the fire was burning between Cajon Boulevard and the freeway near the
31 metal container. He also said his coworker who had been driving ahead of him by a few
32 minutes did not see any fire, so HOLMES knew he was seeing the fire when it first
33 started. He drove to the Devore fire station southeast of Kenwood Avenue (a distance of
34 1.5 miles) to report the fire, and there were no other fires burning along the freeway. He
35 filled his water tender and returned to the fire to help put it out. He had no further
36 information. I collected his identifying information and made contact with
37 GOLDSCHMIDT to tell him where HOLMES had put the fire origin when it was first
38 starting and I was going there to start the investigation. He said he would follow me as
39 soon as he finished giving an assignment to a fire crew.
40

41 I returned to Cajon Boulevard just inside of the metal gate at about 12:25 p.m.,
42 and saw three individuals, and I recognized one as a Southern California Edison
43 employee. I asked the three individuals not to do any work in the area I designated, from
44 the metal gate southeast to a power pole on the ridgeline, so I could conduct my
45 investigation. They acknowledged my request and walked back outside the metal gate,
46 and I took 3 pictures of a power pole just north of pole # 1745568E near the metal

1 container. After taking the pictures I saw W-6 PAYAN and W-7 SEDANO approaching
2 me on foot from their vehicle they had parked just inside the metal gate.
3

4 ***Contact with W-6 PAYAN, W-7 SEDANO (San Bernardino City Fire Investigators),***
5 ***evidence photos from W-8 CAMPBELL (Consultant)***

6 At about 12:30 p.m., W-6 PAYAN told me he had collected information from an
7 individual who was seen near the Kimbark Elementary school on Kenwood Avenue north
8 of the freeway, and he had identified the individual as W-8 CAMPBELL. Contact was
9 made with him when he was seen taking pictures of the fire. PAYAN related to me that
10 CAMPBELL said he had been over by the Glen Helen / Interstate 15 area when he saw
11 the fire first starting. He drove towards the fire and took several pictures as he
12 approached Kenwood Avenue. He also took a picture from outside of the metal gate
13 looking towards the fire, and he was able to provide copies of the photographs on 8-1/2"
14 by 11" size paper from a portable printer he had in his vehicle. PAYAN provided
15 CAMPBELL'S vehicle description for me and said he ran a vehicle registration check,
16 and the car was leased from Enterprise Car Rental to a company named WCPC
17 Inspections, which CAMPBELL said he worked for. CAMPBELL provided his business
18 card to PAYAN. W-7 SEDANO included the information the vehicle had a red white and
19 blue emblem on the rear window showing "In Memory of 26". SEDANO indicated the
20 size of the emblem was about 9 to 12 inches square. PAYAN provided me the original
21 six printed photographs given to him by CAMPBELL, and I marked each with "Cajon,
22 BDU 11627 @ 10-22-07; photo by Campbell" and I preserved them as evidence logged
23 at 12:45 p.m. Two of the photographs were of the same image.
24

25 ***Area is Secured***

26 W-4 GOLDSCHMIDT, USFS, arrived at the scene at about 12:50 p.m., and we
27 sat in his vehicle while I briefed him on all the information I had gathered up to that
28 point. He turned his vehicle to a northeast facing position, allowing us to view
29 CAMPBELL'S photographs and orient the landmarks in the images with the landmarks
30 in our line of site. I told him CAMPBELL'S photograph showed the metal gate had
31 been in a closed position, but the gate was open when I first arrived at the scene.
32 GOLDSCHMIDT said the gate had been closed when he first arrived, and a Southern
33 California Edison employee had opened the gate for him.
34

35 While comparing power poles in the photograph with the poles closest to where
36 we were parked in GOLDSCHMIDT'S vehicle, I noticed a single 33kV conductor was
37 swinging laterally back and forth and making contact with the adjacent conductor on the
38 southwest end of the top cross arm attached to the power pole. I also noted
39 CAMPBELL'S photograph captured this same power pole, and the conductor was
40 detached from the insulator at the time he took his picture. Furthermore, the fire was
41 burning southeast of the same power pole on the downwind side, with no fire on its
42 northwest or southwest side.
43

44 At this point I suspected the subject power pole with the detached conductor was
45 associated with the start of the fire, and GOLDSCHMIDT put flagging across the
46 opening of the metal gate entrance and along the northeast side of Cajon Boulevard to

1 secure the surrounding area.

2
3 ***Initial Close-up Examination of Subject Power Pole***

4 At about 1:35 pm, GOLDSCHMIDT and I hiked up the hillside approximately
5 150 feet towards the north to examine the area. The subject power pole was a vertically
6 upright wooden pole with a protective metal wrapping surrounding its circumference
7 from the ground level to a point approximately just below half its total height.

8
9 Two individual cross arms were attached to the upper portion of the pole. Both
10 cross arms were oriented with their longer ends pointing northeast to southwest. Each
11 cross arm supported three insulators, with one insulator being on the extreme southwest
12 end of the cross arms and two insulators on the northeast half of the cross arms.

13
14 The lower cross arm's insulators were grey in color and each was equipped with a
15 clamping system to hold the individual 12kV conductor in place. Each of the lower
16 insulators were secured to the cross arm by way of a bolt running vertically from the
17 bottom of the insulator through the cross arm and secured from the underside of it with
18 two flat washers and a nut.

19
20 The upper cross arm insulators were brown colored porcelain with each having
21 three bell-shaped convolutions topped with a collar that was narrower at its base and
22 wider at its top end. The insulator's convolutions and collar were molded as a single
23 piece of hardware. A "V" shaped groove was engineered into two sides of the collar
24 opposite each other to provide a depression for the 33kV conductor to lay across it in a
25 cradled fashion. The individual conductor was secured to the insulator by a system of
26 wrapping an approximately 1/4-inch diameter aluminum non-insulated tie wire around the
27 conductor on each side of the insulator, and also wrapping the wire around the collar at
28 the top of the insulator. The upper cross arm's three insulators were secured to it by way
29 of a bolt running vertically from the bottom of each insulator through the cross arm and
30 secured from the underside of the cross arm with two flat washers and a nut. The center
31 conductor over the top cross arm had become detached from its insulator, and the tie
32 wires which had been secured around the collar where protruding outward away from the
33 conductor approximately 9 to 12 inches.

34
35 Each cross arm had a single ground wire running along its length. The ground
36 wire was attached in-series to each of the three insulators. The ground wire was wrapped
37 around the bolt extending down from the bottom of the insulator and compressed
38 between the two flat washers held in place by the nut on the underside of the cross arm.
39 The ground wires did not descend to ground level.

40
41 Both the upper and lower cross arms were intended to be stabilized with a "V"
42 shaped metal brace attached to the pole and to the underside of each cross arm. Each V-
43 brace had three locations for attaching it in place with a carriage bolt running through
44 each of the holes drilled through it. The locations of the drilled holes on the brace were
45 on the ends and at the "point" of the "V". I had observed the upper cross arm's V-brace
46 had been rotating as the wind gust had steadily increased in strength from the time of my

1 arrival, and the brace stopped rotating after the end of the V-brace reached an
2 11-o'clock position as viewed from the west side. I also observed the top cross arm's
3 northeast and southwest ends were rocking up and down in a teeter-totter motion for lack
4 of support from the V-brace. The free movement of the V-brace indicated the nuts
5 securing it to the upper cross arm were not in place.

6
7 While we were on the hillside examining the area the winds had continued to
8 increase, and a "firing-out" operation had been started at the intersection on Kenwood
9 Avenue and the on-ramp to southbound Interstate 15. The smoke and ash started to blow
10 directly into our area, so we returned to our vehicles and waited for conditions to improve
11 before continuing our examination around the power pole. During our initial
12 examination, I took photographs of the power pole cross arms and the area to the
13 southwest actively burning as a result of the firing out operation.

14 15 ***Interstate 15 Closed in Both Directions***

16 At about 2:47 p.m., W-3 EMORY contacted me on Cajon Boulevard south of the
17 subject power pole, and he asked if somebody could extinguish a fire that was burning on
18 the ridgeline northeast of the subject power pole on one of two poles supporting a single
19 structure EMORY referred to as an H-frame. He said if the pole collapsed it would twist
20 and the power lines would fall across Interstate 15. GOLDSCHMIDT contacted the
21 Cajon Operations Chief, and fire crews extinguished the fire, but Interstate 15 was shut
22 down until the H-frame structure was reinforced with another pole the next morning.

23
24 Between 2:51 p.m. and 3:15 p.m., I observed the wind conditions increase, and I
25 took photographs of the subject power pole to document the lateral swaying of the loose
26 conductor making contact with the conductor on the southwest end of the upper cross
27 arm, and its up and down rocking motion. I then contacted my dispatch center and asked
28 dispatcher Chris Nichols to check how the initial report of the fire was received, and I
29 told him I would call him back for that information. During the time I was taking
30 pictures, W-9 HARP arrived at the scene.

31 32 ***Contact with W-9 HARP (USFS Law Enforcement), and Video Record Subject Power Pole***

33 W-9 HARP sat in my vehicle and I briefed him on all the information I had up to
34 that point. As we were discussing the action of the swaying power line I used my digital
35 camera, which has a video camera function, and I started video recording the subject
36 power pole and its conductors at 3:25 p.m., until 3:28 p.m., narrating my observations as
37 they occurred. Ken HARP was present while I recorded this video.

38 39 ***Contact with W-10 COKER***

40 At about 3:30 p.m., W-10 COKER identified himself as a Southern California
41 Edison claims representative and was inquiring about the cause of the fire. I told COKER
42 I was the fire investigator and was conducting my initial investigation around the subject
43 pole based on my witness account from W-5 HOLMES who saw the fire starting, and
44 based on a photograph provided by W-8 CAMPBELL showing the fire, and on my
45 observation of the conductor swaying loose with the wind. I told him when I first arrived
46 and talked to W-3 EMORY, he told me the 33kV power lines had tripped. I asked

1 COKER if he could tell me what time the circuit trip had occurred. He answered his
2 supervisor was on the way, and he would have to provide the information for me.

3
4 ***Contact with W-11 PIMENTEL (Claims Representative)***

5 At about 4:10 pm, W-11 PIMENTEL arrived at the scene, and I briefed him on
6 the same information I had given to W-10 COKER. W-4 GOLDSCHMIDT, W-9 HARP
7 and I began our second examination of the power pole and surrounding area. PIMENTEL
8 asked if he could accompany us to take pictures, saying he would not interfere with our
9 investigation, and I agreed he could.

10
11 ***Subject Power Pole and Area Scene Examination***

12 When we got up to the subject pole GOLDSCHMIDT and HARP began
13 examining the area, and I set my camera to take continuous pictures so I could capture
14 still-frame movement of the center conductor. I took a series of 37 pictures, and while I
15 was standing under the power pole, I could see that two of the three nuts used to attach
16 the V-brace in place to support the lower cross arm were missing. Specifically, the nut
17 that would have been attached to the underside of the cross arm's southwest end, and the
18 nut attaching the point of the V-brace to the power pole were missing. I looked below the
19 cross arm and saw a single square-shaped nut lying on top of the burned ground. I
20 encircled the nut on one side with my probing hook that has an opening of 4-1/2 inches
21 for a visual size reference and took photographs of the nut. I placed a yellow flag marker
22 next to the nut and took photographs to show the distance of the nut from the base of the
23 power pole and estimated the distance was about 6 feet away on the south side. I found a
24 carriage bolt long enough to pass through the diameter of a power pole lying on the
25 ground on the west side of the subject power pole's base, but could not see any location
26 on the pole from where this piece of hardware could be missing, and attributed its
27 existence to work previously performed in the immediate area. After examining the nut,
28 PIMENTEL asked me if he could take a closer look at the nut and take a photograph of it,
29 and I said yes. While he was looking at the nut, I expressed my opinion it appeared, due
30 to the fact there were nuts missing from the lower cross arm V-brace, and the fact the
31 upper cross arm V-brace had rotated clockwise, that there had not been any recent
32 maintenance on the subject power pole cross arms, because if there had been the nuts
33 would have been tightened, and/or the missing nuts replaced, and PIMENTEL agreed
34 with me. He also said he did not see any signs of arcing while looking up at the cross
35 arms, and I told him I still wanted to look at the items on top of the pole when it was
36 repaired. He said it probably would be a while before repairs to the subject pole would be
37 made, because the H-frame support pole had to be repaired first so Interstate 15 could be
38 reopened, and repairs would begin as soon as I finished. I told him as soon as we finished
39 looking at the indicators on the ground, I would release the scene back to Southern
40 California Edison so they could begin their repair work and open up Interstate 15, and I
41 would wait at the scene for the repair work on the subject pole to be completed.

42
43 I rejoined GOLDSCHMIDT and HARP in their search of the area surrounding the
44 power pole. During the examination of the ground area I noted the burn indicators,
45 including the evidence of the intensity of the burning, by looking at where vegetation was
46 completely consumed versus partially consumed, and that area of vegetation sheltered by

1 other objects such as rocks. The appearance of partially burned vegetation was examined
2 for the location of burn upon its structure, angle of cupping on the tips of vegetation, and
3 the appearance of leaf freeze. The location of smoke staining on rocks and on the power
4 poles was noted. At the time of my arrival at the fire I witnessed the area back-burning
5 from northwest of the subject power pole counterclockwise to the southwest, and
6 W-8 CAMPBELL'S photograph showed the area that had not yet burned upon his arrival.
7 Based on the observed burn indicators, my initial on-scene observations, and on the
8 witness photograph, my preliminary general area of origin was placed on the northeast to
9 southeast side of the subject power pole.

10
11 During the examination of the area, I eliminated other possible causes of the fire.
12 The area in and around the general area of origin was examined for items suspicious in
13 nature having characteristics associated with a device made to start a fire, as well as items
14 or objects recognizable as having been fireworks, or smoking material, and none were
15 found. Objects capable of magnifying the sun's rays such as broken glass were not found.
16 The closest railroad tracks were approximately 2000 feet southwest of the general area of
17 origin. There were no vehicle tracks in or around the immediate area on the hillside
18 above, below, or to either side of the general area of origin. Interstate 15 was
19 approximately 370 feet northeast of the subject power pole and was below the level of a
20 ridge line separating Interstate 15 and the general area of origin. There was no evidence
21 of discarded smoking material in the area. Cajon Boulevard was approximately 150 feet
22 southwest of the general area of origin, and the gate denying access restricting vehicle
23 traffic to this area was reported as being closed upon W-4 GOLDSCHMIDT'S arrival at
24 the fire. An examination along the edge of Cajon Boulevard revealed additional hardware
25 associated with power poles lying in the drainage parallel to the road, but no items were
26 found that I could determine were a cause or contributor to the fire's start. A large
27 diameter pipe used to channel water runoff under Cajon Boulevard was located
28 approximately 450 feet southeast of the subject power pole. The pipe was large enough
29 for a person to enter into it and was typical of an area associated with transient persons
30 taking refuge. The inside of the pipe was examined, and there was no evidence of
31 habitation or evidence any type of warming fire had been used. There were no stores,
32 schools, places of business, or parks in the immediate area that would promote foot
33 traffic, and there was no evidence or reports of persons being in the restricted area
34 southeast of the metal gate at the time the fire was reported. Although the weather was
35 extreme as it pertained to the high wind and low humidity, there were no reports of
36 precipitation, cloud cover, or lightning activity before or after the report of the fire. As a
37 result of these observations, fire causes associated with incendiary devices, fireworks,
38 railroad activity, vehicles or vehicle exhaust, smoking, camp or warming fire,
39 spontaneous combustion, persons playing with fire, and lightning were excluded.

40
41 W-9 HARP and I completed our examination and returned to the road while
42 W-4 GOLDSCHMIDT continued his search of the area. He did locate what appeared to
43 be a piece of flat metal 16 inches to 24 inches long lying on the ground on the down slope
44 side southeast of the subject power pole, and it resembled an old piece of power pole
45 hardware. There was evidence of a previously burned power pole immediately adjacent
46 to the power pole, located two poles southeast of the subject power pole. I photographed

1 GOLDSCHMIDT on the hillside where he found the flat piece of metal. After
2 photographing the metal piece, I returned to the subject power pole to take a GPS
3 reading.

4 At about 5:25 p.m., I told W-11 PIMENTEL they could start their repairs, and I
5 would remain at the scene to examine the subject poles' cross arm components when they
6 made those repairs. He asked me if I could provide the names and phone numbers of the
7 witnesses I had talked to and the report time of the fire, and I provided him all the witness
8 information I had up to that point. I called my dispatch center to get the information I
9 requested earlier regarding the first report of the fire and was told the initial call came in
10 via a cellular 9-1-1 phone from a "passerby". The call was received at 11:29 a.m., and I
11 gave this information to PIMENTEL.

12
13 At approximately 6:00 p.m. I advised GOLDSCHMIDT and HARP I would
14 remain at the scene and released them from the preliminary examination, and they
15 departed from the scene some time after my advisement. I remained in my vehicle
16 waiting for the repairs. While waiting in the immediate area, W-11 PIMENTEL also
17 remained at the scene. At one point he told me the repair crews were waiting for a
18 bulldozer that was enroute to the scene, but it was delayed in traffic due to the closure of
19 Interstate 15. He told me when it got there it would first have to cut a road up to the
20 H-frame power pole structure to make the repairs, and after those repairs were made a
21 road would be cut to the subject power pole and work would start there.

22 23 ***Repairs to Subject Power Pole***

24 The bulldozer arrived at about 11:00 p.m., and it made a road to the H-frame
25 power pole. Once the road was cut into the hillside, the repair crews attached a second
26 support pole to the burned pole. On October 23, 2007, at approximately 3:00 a.m., the
27 roadwork to the subject pole began, and then a PAR Company utility vehicle (contractor
28 for Southern California Edison) with a truck mounted aerial lift bucket was positioned
29 next to it. Two PAR employees were lifted up to the cross arm position while a third PAR
30 employee remained at ground level next to the vehicle. I was on the ground next to the
31 vehicle with PIMENTEL. I photographed the lift bucket while positioned next to the
32 subject power pole's upper cross arm, and then one worker removed the three sections of
33 wrapped aluminum tie wire from the center 33kV conductor with his gloved hand and
34 dropped the pieces onto the floor of the lift bucket. He then yelled down to PIMENTEL
35 and said the insulator was "O.K.". I told PIMENTEL I wanted to see the center insulator,
36 so the crew removed the insulator and replaced it with a new insulator with a clamping-
37 type system for securing the conductor in place. At ground level I photographed the
38 aluminum tie wires and the top and bottom of the insulator. The top of the insulator did
39 not appear to be missing any pieces of porcelain around the collar or the three bell-shaped
40 convolutions. There was no discoloration that would indicate arcing had occurred
41 immediately on top of this insulator. There were scratch marks on the collar where the
42 detached conductor had slid back and forth across the rim of its top edge. The bolt
43 attached to the underside of the insulator was examined, and the portion of bolt that
44 would be protected by its insertion through the cross arm had evidence of discoloration
45 similar to burn marks. The three individual aluminum tie wires were examined, and they
46 were approximately 18 inches to 24 inches in length. I photographed their lengths and

1 their ends to document the different marks and discolorations on the wires, and to
2 identify the wires for future examination. In the low light, and without the assistance of
3 magnification, I did not see any outstanding marks suggesting molten aluminum on the
4 wire ends, but there were smaller markings I wanted to examine under the magnification
5 of the digital pictures. I did not collect the tie wires or the insulator since I had
6 photographed them and PIMENTEL told me they would be secured at the Rosemead
7 office available for examination upon request. After my examination I advised
8 PIMENTEL I needed to leave the scene for another fire that had been reported around
9 1:00 a.m. not far from the Cajon fire, and I would be contacting him on the telephone for
10 follow up information. As I was leaving, one of the PAR linemen told me they were
11 going to go back up and tighten some nuts. I cleared the scene on October 23, 2007, at
12 about 4:55 a.m.
13
14

15 ***Special Agent Stephen Frick***

16 On October 23, 2007, at about 8:30 a.m., I received a phone call from Cal Fire
17 Chief Pete Marquez advising me W-12 FRICK, Special Agent from the U.S. Forest
18 Service, had been assigned to the Cajon Fire incident. At about 12:30 p.m., FRICK
19 arrived at my office in San Bernardino, and I provided him with a verbal briefing of the
20 fire, and we reviewed the photographs and video I had taken. We then drove to the scene
21 of the fire for additional examination, and Special Agent Frick took some photographs. I
22 called W-11 PIMENTEL on his cellular phone to tell him I had decided I wanted to
23 collect the aluminum tie wires and insulator in his possession, and he replied he would
24 make them available for my inspection but he was not going to relinquish control of the
25 items to me. I contacted Chief Marquez to advise him of the situation, and he said he
26 would make a follow-up call to PIMENTEL the following day when I met with him to
27 provide my preliminary briefing. Before we cleared the scene, Special Agent Frick and I
28 established we would meet back at the scene the following morning so he could use
29 colored flags to mark burn indicators and draw a sketch of the fire's area of origin, and he
30 would also make contact with the initial reporting party to obtain a statement.
31

32 ***Area of Origin Documentation***

33 On October 24, 2007, at about 9:30 a.m., I met Special Agent Frick back at the
34 scene of the subject power pole. He used red, white, and blue colored flags to mark burn
35 indicators and items of interest. We both took photographs of the area, and I examined
36 the area looking for any additional items to note, but none were found and we cleared the
37 scene at about 12:30 p.m.
38

39 ***Second verbal request to W-11 PIMENTEL for insulator and tie wires***

40 At about 1:30 p.m., I met with Chief Marquez at the Riverside office and briefed
41 him on the status of the Cajon Fire investigation, including my request to W-11
42 PIMENTEL for possession of the aluminum tie wires and insulator and PIMENTEL'S
43 denial of my request to take possession of those same items. Chief Marquez subsequently
44 called PIMENTEL on the phone at about 2:00 p.m. and he reported back to me that
45 PIMENTEL had given him the same answer as he had given me the day before. I finished
46 my meeting with Chief Marquez at about 2:30 p.m., and I returned to my office to

1 examine the digital photographs I had taken.

2
3 ***Additional evidence of arcing located***

4 While reviewing the digital photographs on my computer, I realized I had
5 captured evidence of arcing on the center conductor in the form of groove impressions
6 molded into the contour of the conductor (photo 2-27). Upon magnified examination, it
7 was noted the construction of the conductor was comprised of individual wire strands laid
8 side by side and wrapped spirally upon each successive layer to form the desired diameter
9 of the conductor. The visible groove impressions on the underside of the conductor were
10 impressed into the outside layer of individual wire strands to a depth that appeared to be
11 almost halfway through the individual wires. The recesses in the grooves were shiny and
12 smooth, and the area of conductor immediately adjacent to the grooves had a darker oval
13 discoloration than the rest of the conductor. I interpreted this darker area to be flash
14 marks from the arc. The grooves were situated in a location between the aluminum tie
15 wires that were wrapped around the conductor to hold it in place on the insulator. These
16 same grooves were photographed two weeks later (11-6-06 Photo # 6-3) and had the
17 same shape and appearance, and the aluminum tie wires were no longer in place because
18 the new insulator had a clamping-type system to hold the conductor, eliminating the need
19 for tie wires. It was evident the grooves were not the result of long duration compression
20 from the tie wires being wrapped around it because in comparison, that area of conductor
21 on each side of the grooves that no longer had tie wires wrapped around it had not created
22 any type of impression other than a slight spiral discoloration. It was my conclusion the
23 grooves were the result of electrical arcing.

24
25 ***Aerial Photographs of Subject Power Pole***

26 On October 25, 2007, at about 12:00 p.m., I took aerial photographs of the Cajon
27 Fire area of origin. While over the subject power pole I took a total of 45 pictures. After
28 reviewing magnified close-ups of the digital pictures on my office computer, I
29 determined there was visual evidence of discoloration which was most likely residue
30 resulting from an electrical arc on top of the insulator located at the southwest end of the
31 upper cross arm on the subject power pole, and the appearance of the discoloration could
32 not have been seen from below the insulator because of its location on top of the
33 insulator.

34
35 ***Verbal confirmation of Cajon Fire Circuit Trip by W-11 PIMENTEL***

36 On October 30, 2007, at about 2:24 pm, I spoke to W-11 PIMENTEL on the
37 telephone, and he told me "the circuit trip on the Cajon fire was at 11:28 a.m.". He also
38 said he had been out at the site of the subject power pole on Friday (10-26-07), and he did
39 not see any evidence of arcing with his binoculars. I told him I flew over the subject pole
40 in a helicopter, and it did look to me like arcing had occurred.

41
42 ***Additional Photos of Insulator with Signs of Arching***

43 On November 4th, at about 9:30 a.m., I returned to the scene of the subject power
44 pole, and I was accompanied by Cal Fire Captain Gary Aguilar. I had asked him to come
45 with me in the event I needed assistance while taking pictures. Once on scene, I walked
46 around from the northwest to northeast to the southeast perimeter of the subject power

1 pole to provide different angles for taking pictures from below, above, and level with the
2 subject power pole insulators. I used a 300 millimeter camera lens to document the visual
3 evidence of discoloration on the insulator located on the southwest end of the upper cross
4 arm on the subject power pole. After taking these pictures I noticed the second power
5 pole southeast of the subject pole had insulators on the top cross arm similar in shape and
6 size to those on the top cross arm of the subject pole. The conductors were attached to
7 these insulators in the same fashion using aluminum tie wires. The insulators appeared to
8 be tilting towards the subject pole at an angle suggesting excessive tension was being
9 applied to the tops of the insulators resulting in the twisting of the upper cross arm they
10 were attached to. I also noted that on the third power pole southeast of the subject power
11 pole were nuts that secure the V-brace on the underside of the lower cross arm. The
12 carriage bolt which the nut would have been attached to was no longer passing through
13 the hole in the V-brace on its northeast end but was butting against the edge of it. I
14 photographed these observations and left the scene at about 11:00 a.m.

15
16 ***Scene examination by Electrical Engineer W-14 Dr. Rhodes***

17 On November 6, 2007, at about 3:00 p.m., I returned to the site of the subject
18 power pole and met W-13 DEATON (USFS Special Agent) who had called me the week
19 before to advise me W-14 RHODES, an electrical engineer, was going to be in the area
20 and he would come to the site to examine the subject power pole. W-15 LANNON
21 accompanied me to the site. Upon our arrival, DEATON and Dr. RHODES were at the
22 site, and I took additional pictures of the ground wire configuration on the underside of
23 the top and bottom cross arms. Dr. Rhodes said he would like to see the tie wires and
24 insulator that had been removed as well as the insulator still in place on the top cross arm
25 at the southwest end of the subject power pole. He said he would examine these
26 components once they became available. While examining the area around the subject
27 power pole, LANNON noted a small piece of burned wood similar in appearance to the
28 wood material of the subject pole, and it was collected as an item of interest and logged
29 in as evidence. We cleared the scene at about 4:30 p.m.

30
31 ***Original Digital Photographs taken by W-8 CAMPBELL***

32 On November 9, 2007, at 8:46 a.m., I received an email forwarded to me from
33 W-6 PAYAN containing the digital photographs W-8 CAMPBELL had taken the day the
34 Cajon Fire started. I was able to review the photographs with closer scrutiny by
35 magnifying the digital image, and I noted an indistinguishable darker area on the
36 conductor near the insulator it had become detached from. I contacted W-16 DEROSIER
37 and asked him to meet me at the site to determine what the dark spot in the digital image
38 may have been. We arrived at the scene at about 2:00 p.m., and I again examined the
39 length of the conductors on both the top and bottom runs between the subject pole and
40 one pole to its southeast using binoculars, checking for any type of evidence or burn
41 marks along the conductors, and none were found. I did locate a piece of aluminum tie
42 wire approximately 70 feet away from the subject pole and 22 feet downhill of the
43 conductors. I photographed the tie wire and then collected it. DEROSIER had located
44 another length of tie wire approximately 250 feet southeast of the subject pole along the
45 edge of Cajon Boulevard, and I collected it as evidence showing the area was littered with
46 different components associated with power poles and conductors. After my examination

1 I took photographs from the same location W-8 CAMPBELL had taken his photograph
2 for a before and after comparison. After my examination I concluded the dark spot on the
3 center conductor in CAMPBELL'S digital photograph was the tie wires hanging free
4 where they had detached from the center insulator. We left the scene at about 3:45 p.m.
5

6 ***Additional evidence showing lack of maintenance on power poles***

7 On December 9, 2007, I was reviewing all the photographs I had taken at the
8 Cajon Fire for details and noted several photographs taken on November 9, 2007,
9 showing the missing nut on an adjacent power pole V-brace were of poor quality with
10 minimal photographic detail. I therefore returned to the scene to photograph the same
11 area with the use of a mirror to reflect light up onto the subject. I was assisted by the
12 engine company fire crew from the Devore fire station commanded by Captain Terry
13 Acrey. We arrived at the scene at about 2:40 p.m., and we walked up to the power pole
14 located two poles southeast of the subject pole. While a firefighter focused light onto the
15 underside of the cross arms with a mirror, I took pictures of the single missing nut on the
16 lower cross arm V-brace at the northeast end of the cross arm, and we cleared the scene at
17 about 3:40 p.m.
18

19 On December 10, 2007, at about 12:30 p.m., I returned to the Cajon Fire scene at
20 the third power pole southeast of the subject power pole, and I photographed the lower
21 cross arm which was missing two nuts, one nut from the northeast side, and one nut from
22 the southwest side of the lower cross arm. The carriage bolt, which I also photographed
23 on November 9th, was still in its original position butting against the edge of the V-brace
24 instead of passing through the V-brace hole as it was intended to when secured with the
25 nut. This provided evidence that a missing nut allowed the cross arm to rock up and down
26 to the point of becoming free of the carriage bolt. I photographed a small oval-shaped
27 metal tag nailed to this pole which read "OSMOSE / INSP 2000". There was another
28 half-moon shaped metal tag behind this tag with the name or word "WOODFUME".
29 After photographing the tags, I noted the GPS location of this pole as Latitude
30 N 34° 14'01.0" / Longitude W 117° 25'22.8", and then I cleared the scene at about
31 1:40 p.m.
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1 11. Other causes for the Cajon Fire were eliminated.
2

3 The most probable scenario leading up to the arcing is that the missing nuts on the
4 V-brace attached to the upper cross arm on the subject power pole allowed the wind to
5 move the upper cross arm for an unknown duration of time sufficient to cause a failure of
6 the system used to secure the center conductor to its insulator. The failure allowed the
7 conductor to sway laterally in the strong wind to the point it made contact with the
8 adjacent conductor on the same cross arm. This contact resulted in the electrical arc
9 allowing an undiscovered piece of hot material to ignite the vegetation.
10

11
12 ***Case Disposition***

13 The case remains open and additional information and material items will be
14 requested from Southern California Edison. Physical evidence in their possession and any
15 additional physical evidence collected will be examined by technical experts for opinions
16 and conclusions.
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23 RODNEY J DELGADO ID # 1159
24 Fire Investigator / Sworn Peace Officer
25

December 11, 2007