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E Lightning (Detection Method)

Approx.

20%

CAUSE DETERMINATION

Lightening occurrence records were obtained from the National Interagency Fire Center (Attachment A). These records showed no lighting occurring for the period of 03/09/12 to 03/26/12. Actual physical evidence of a lighting strike may include the object the lighting struck, most commonly a snag or tree, which would leave a fresh lighting scar running down a main branch or the trunk. The Investigation Team was unable to locate any physical signs of a lighting strike on nearby vegetation or on the ground near the general origin area.

See Summary in

**Attachments** 

= Excluded

(E)

N/A

N/A

(State Reasons of Determination & Elimination)

N/A

N/A

#### **E** Equipment Use (Exhaust, Brake Shoe, Aircraft, Vehicle Fire, Other)

(I) = Included Cause

Equipment use covers a wide variety of possible ignition sources (excluding railroad operations), related to the use of mechanical equipment. With equipment use, investigators look for indications of ignition from sources such as exhaust particles, friction, fuel and lubricate use, mechanical breakdown and radiant or conductive hear transfer. In most cases, physical evidence of the equipment presence is observable. No evidence of equipment caused ignition was found in or near the general or specific areas of origin. Further, witness interviews revealed no evidence of equipment caused ignitions.

E Smoking (Tobacco, Other)

A very narrow range of environmental conditions and physical circumstances must be present for a cigarette to successfully ignite a wildland fire. Temperatures, relative humidity, wind speed and direction, and fuel moistures must all fall within specific limited parameters as defined by extensive research. In addition to direct contact of the cigarette's surface, several environmental factors are important when considering a cigarette as a possible ignition source. Critical factors are the host fuel bed and the weather conditions.

The environmental conditions that were in existence at the probable time of ignition for the fire did not fall within the specific limited parameters as defined by research. The Investigation Team acquired data from the five closest functioning Remote Automatic Weather Stations (RAWS) to the Lower North Fork Fire point of origin (Attachment B). The first critical environmental component is ambient temperature. On average, a temperature of 80 degrees

Fahrenheit or higher is most conducive to ignition from a cigarette. RAWS data showed temperature readings ranging from 62 to 66 degrees Fahrenheit at the five stations. Wind speed has been demonstrated to play a material role in cigarette caused ignitions. A wind speed of 3 mph. has been suggested as an ideal speed to support ignition. Wind speeds greater than 3 mph. can increase the burn rate, but tend to pull the heat away from the fuelbed, which reduces the probability of ignition. In this case, the RAWS data showed a range of wind speeds from 17 mph. to 74 mph.

Relative humidity must also be taken into consideration. According to research, relative humidity in excess of 22% will preclude a cigarette from igniting wildland fuels. RAWS data from the five weather stations showed RH readings ranging from 4 to 6%.

Although the relative humidity levels fell within the appropriate parameters for a smoking fire, the temperature and wind speed did not. In addition, investigators did not locate any cigarette remains within either the general or specific origin area.

#### E Campfire (Cooking, Warming, Ceremonial, Other)

A campfire is defined as any fire made from wood or other combustible material that is being used for cooking, heating or lighting purposes. This category includes barbecues and gas camp stoves. Most campfires are usually built within the confines of a descendible rock ring. Campfires also leave physical remains in the form of coals and partially burned fuels that are easily recognizable due to the volume and arrangement. No evidence of these indicators was present in the specific origin area, nor was there any obvious sign of camping activity near the general or specific origin areas. Further, the origin area is on the private property of the Denver Water Board and is closed to motorized public entry via locked gates. Witness interviews revealed no evidence of campers or public campfire activity in the origin area.

The Investigative Team was advised of two possible campfires in the general vicinity of Foxton Road. Both campfires were ruled out as potential ignition sources due to their distance from the specific origin area as well as the fact that they both occurred days prior to the ignition of the Lower North Fork Fire.

#### I Debris Burning (Land, Slash, Refuse, Other)

Wildfires in this category include fires started by either creeping escapes or windblown embers from trash barrels, small piles of yard debris such as pine needles or leaves, stubble field burns, slash piles or any other controlled burning. On occasion, debris burning activity may not be apparent as the wildfire may have started from a source some distance away or was kindled by a holdover from a pile originally burned days or even weeks before.

The specific origin area, which was located in a saddle along the ridgeline northeast of the prescribed burn in Unit 4, showed evidence of ignition from multiple windblown embers. Investigators identified several cold embers within the specific origin area that would have been competent ignition sources on the day that the Lower North Fork Fire ignited. However, due to the amount of disturbance to the specific origin area resulting from the suppression effort and wind event, investigators could not be certain that the embers had not been disturbed.

In general, research has shown that most windblown embers will self-extinguish after about 40 feet. However, exceptions to this rule occur when the firebrand is thick, wind speeds are high, or the source of fire was large enough to create a convection column that provides lift to increase lateral travel. Investigators believe that most, if not all three of these exceptions are applicable to the Lower North Fork Fire.

#### E Railroad (Ignition Activities Associated with Railroad Companies)

Railroad related fires are defined as any fires that are associated with railroad operations. Examples of potential ignition sources include diesel locomotive exhaust carbon or brake shoe particles. There are no railroad operations near the general origin area.

#### E Incendiary (Ignition Component / Material First Ignited)

Incendiary, or arson fires, are defined as those fires started deliberately and with willful or malicious intent and that burn any grass, brush, timber or property that belongs to another. The Investigation Team did not locate an arson device within the origin area, or any evidence that would support a deliberate start. Investigative interviews illuminated no indication of arson activity in the area, and public access to the origin area is restricted by locked gates. Furthermore, interviews with fire and law enforcement officials that were routinely in the vicinity of Unit 4 of the prescribed burn

around the time that the Lower North Fork Fire ignited reported seeing no unauthorized personnel on the Denver Water Board property.

E Children (Ignition Activities Associated with Children)

The origin of the fire is in a remote area far from any schools, parks, playgrounds, or residential homes. No evidence of children, such as small footprints, discarded candy wrappers, juice containers, toys or clothing was found by the Investigation Team. Furthermore, the origin area is on the private property of the Denver Water Board and is closed to public entry. Witness interviews revealed no evidence of children being in or near the origin area around the probable time of ignition.

E Miscellaneous (Blasting, Structure, Fireworks, Pest Control, Logging, Power line, Glass, Target Shooting, Spontaneous Combustion, Other)

This category includes such causes as power lines, fireworks, blasting, cutting, welding and grinding, reflective glass and spontaneous combustion. There were no power lines near the general or specific origin areas. In addition, participation in many of the other ignition sources included in this category would generally result in some sort of physical evidence being left behind at the scene. For example, if fireworks had been used in the area, investigators should have found spent devices or charred portions thereof. If target shooting was occurring, investigators may have located spent shells, target material, and evidence of shooting on vegetative material. Welding and grinding activities generally leave evidence in the form of slag, discarded welding flux rods, waste metal and other small metal fragments.

Investigators did not find any evidence of such activities in either the general or specific origin areas.

X Cause Determined: State brief reason & include in the narrative		Cause Undetermined: State brief reason & include in the narrative
Reference Narrative under "Debris Burning" above.	N/A	

e 1 meneral in the state of the		Incident Number	CO-JEX-000176
30	NARRATIVE	Incident Date	03/26/2012

SYNOPSIS: (Date, Fire Name, Estimated Acres, Location, Jurisdiction) (Estimated Cost, Damage; Property / Resource) (Cause; Determined / Undetermined)

On Wednesday, March 28, 2012, a Wildland Fire Origin and Cause Investigation Team responded to the Lower North Fork Fire, near Conifer, Colorado, upon the request of the Jefferson County Sheriff's Office, Golden, Colorado. The Lower North Fork Fire ignited on Monday, 03/26/12 on the private property of the Denver Water Board. The Investigation Team consisted of Special Agents from the Department of the Interior, Bureau of Land Management (BLM) and the USDA Forest Service, and a BLM Park Ranger.

The Investigation Team conducted the on-scene origin and cause investigation and related interviews from 03/28/12-03/30/12. It is the finding of the Origin and Cause Investigation Team that the Lower North Fork Fire ignited at approximately 1340 hours on 03/26/12, and was caused by windblown embers from a prescribed fire burn that was conducted by the Colorado State Forest Service on 03/22/12.

DETAILS OF INVESTIGATION: (Initial Report, Initial Attack, Initial Investigation, Fire Behavior Analysis, Origin Examination, Cause Determination & Elimination)

#### Wednesday, March 28, 2012

On Wednesday, 03/28/12, a Wildland Fire Origin and Cause Investigation Team responded to the Lower North Fork Fire. The team was requested by the Jefferson County Sheriff's Office. Upon arrival, the team met with Andy Parker in Confer, Colorado for an entrance briefing (Attachment C). Parker was the Planning and Operations Chief for the Jefferson County Incident Management, Type 3 Team on the Lower North Fork Fire. The following is a summary of the pertianent information that Parker provided.

On 03/26/12, at approximately 1915 hours Parker received a call at home from James "Tim" McSherry, Director of Emergency Management with the Jefferson County Sheriff's Office. McSherry requested Parker's assistance with the Type 3 Team. At 1950 hours Parker arrived at the Incident Command Post for the Lower North Fork Fire in Conifer, Colorado.

According to Parker, the Colorado State Forest Service (CSFS) ignited a prescribed burn on the previous Thursday (03/22/12). The burn was also used as a training exercise, so there were over sixty people in attendance from various agencies, operating in several disciplines. The fuels were previously masticated. Parker stated that the prescribed burn unit had been black-lined approximately a week before the fire escaped.

On 03/26/12 crews were on-site to conduct mop-up. The Burn Boss was Kirk Will, CSFS Golden District, Golden, Colorado. Will had a trainee with him by the name of Kevin Michalak, CSFS Golden District. There was an Ignition Boss from Platte Canyon Fire Protection District near Fort Collins, Colorado. The Holding Boss was Sam Parsons from Fairmount Fire Protection District in Arvada, Colorado. Parsons had a trainee with him by the name of Rich Palestro, CSFS Boulder District, Longmont, Colorado. The Safety Officer was Rocco Snart, Fire Management Officer with the Jefferson County Sheriff's Office of Emergency Management, Golden, Colorado. Parker was under the impression that mop-up was not complete when the fire escaped.

Parker relayed the following information that he had received from Snart, who was reading from his notes. On 3/26/12 at approximately 1300 hours Snart received a call from Inter-Canyon Fire Protection District Fire Chief, Curt Rogers (later determined to be the Fire Chief for the North Fork Fire Protection District) and Bill McLaughlin, Fire Chief, Elk Creek Fire Protection District. Rogers and McLaughlin reported that the fire had escaped the controlled burn boundaries and that it was currently approximately 1.5 acres in size.

Michalak, who was the Incident Commander for the mop-up operation on 03/26/12, transitioned to the Type 4 Incident Commander when the escape occurred. Snart, who was acting as a quasi-dispatcher for the incident received a call from Will at approximately 1300 hours requesting three Type 6 engines.

At 1330 hours on 03/26/12, Dell Clineschmidt, Captain of Patrol with the Jefferson County Sherriff's Office, contacted his patrol units to see if they had checked on some reports of smoke in the area. Deputies replied that they had looked into the matter and that the fire was approximately five acres. Clineschmidt told the Deputies to get back to the fire. Upon returning to the fire, the Deputies reported that it had grown to ten acres in size.

Parker stated that the next report (time unknown) relayed that the fire had grown to 20 acres. This report came from an unknown person on scene.

At 1436 hours on 03/26/12, radio traffic relayed that the fire was making a massive run, and that the conditions were very windy. Parker did not know what channel the traffic was aired on.

In regard to the current situation, Parker stated that on 3/28/12 at approximately 1226 hours the fire was transitioned to a Type 1 Team and that the Incident Command Post was at the High School in Conifer, Colorado. Parker stated that Don Roach, Investigator with the Jefferson County Sheriff's Office had requested the Investigation Team on behalf of the Sheriff. The objective was to find out what happened. Parker informed the team that they were to work with Roach. The Type 1 Incident Commander for the Lower North Fork Fire was Paul Broyles (later determined to be the Deputy Incident Commander).

Parker informed the Investigation Team that the origin area was on State land (later determined to be the private property of the Denver Water Board). He said that he had requested that the origin area be protected and that the Jefferson County Sheriff's Office had been keeping people from entering the area. Parker defined the origin area as the location where the fire escaped the control line. He said that the Colorado State Forest Service thought they had the fire mopped up. Parker did not know if there was a burn ban in place when the prescribed burn was ignited on 03/22/2012. He informed the investigation team that a red flag warning had been issued for Friday, 03/30/12, 2012 and that 35-80 mph. winds were predicted.

When asked about other activity in the area, Parker stated that there were no known reports of suspicious activity or incidents. He mentioned hearing about an illegal campfire form Clineschmidt. He recalled that it was reported before the escape, but he did not know an exact location (Attachments D and E).

On 03/28/12, the Investigative Team met with Don Roach in Conifer, Colorado for an entrance briefing (Attachment F). Roach was the team's liaison with the fire's Incident Command Team. Following is a summary of the information that Roach provided regarding the Lower North Fork Fire.

In regard to the area where the fire occurred, Roach stated that the property was under the jurisdiction of the Denver Water Board. No one had been allowed near the potential origin area, which was in a location that was under evacuation and road closure restrictions.

Roach mentioned that the Jefferson County Sheriff's Office had four people on the prescribed burn on 03/22/12.

When asked about activities that have been occurring in the vicinity of the Lower North Fork Fire, Roach stated that there was an unattended campfire in Reynolds Park. He did not have an exact location and did not believe that the origin on the campfire had been protected.

Roach stated that he was an Arson Investigator with the Jefferson County Sheriff's Office; therefore, he would know if there were any arson problems in the vicinity of the fire, and he was not aware of any. The last known arson issue occurred last year (2011) and the subject is currently incarcerated.

Roach mentioned that there are two Deputies with the Jefferson County Sheriff's Office that work the area where the Lower North Fork Fire occurred, Mike Sensano and Ronnie Newman. According to Roach, Sensano and Newman

would be able to provide the Investigative Team with information about the activities that occur in and around the origin area of the fire.

Roach accompanied the Investigation Team to the Incident Command Post (ICP) in Conifer, Colorado, and proceeded to work through the logistics of arranging for the team to access the origin area of the Lower North Fork Fire the following day.

On 03/28/12, at 2000 hours, Schultz, Schnurr and Roach interviewed Bill McLaughllin, Chief, Elk Creek Fire Department regarding the Lower North Fork Fire (Attachment G). The interview took place at the ICP in Conifer, Colorado. The following is a summary of the information McLaughllin provided.

McLaughlin stated that at approximately 1355 hours [on 03/26/12] his Department was requested as mutual aid for the fire in the North Fork Fire Protection District. The request was for a Type 6 engine on a one acre slopover on Denver Water Board property.

McLaughlin stated that the CSFS crew was talking to their Golden office on the radio and the information was relayed to Jefferson County Fire Management Officer Rocco Snart. Snart then contacted Jefferson County Dispatch who requested the mutual aid response. Snart was at his Golden office when Kirk Will with CSFS contacted him. McLaughlin was in Aspen Park at a grass fire at the time of the mutual aid call and it took him approximately 30 minutes to respond to the fire scene.

When McLaughlin arrived he observed two engines from the North Fork Fire Protection District, an ATV from CSFS and a Type 6 engine. The North Fork responders were Chief, Curt Rogers and a volunteer and the Type 6 engine was Alex Parks and Scott Byars. Kevin Michalak with CSFS was with the ATV.

Rogers was already on scene doing size-up and told McLaughlin that Michalak was in charge and that they had a "slopover" that was burning downhill to the northeast.

McLaughlin stated that the winds were 20-22 mph, with gusts to 60-80 mph. The wind was blowing so hard they couldn't keep hardhats on. Rogers had a Kestrel that recorded the wind speed and McLaughlin recalled that the Kestrel maxed out at the 80 mph reading. McLaughlin estimated the temperature was in the 70's.

The control line for the prescribed burn was the dirt road on the ridge top. McLaughlin stated the fuel bed of the prescribed fire was masticated fuel, 4-6 inches deep that had burned on the top layer and was reburning deeper in pockets in locations inside the prescription unit. The masticated fuel was primarily ponderosa pine debris.

McLaughlin observed the fire on the downhill side of the ridgeline, to the northeast of the prescribed fire unit. He observed flame lengths of 1-2 feet, with pockets of flame lengths of 4-8 feet, and occasional single tree torching.

McLaughlin stated the fire was not crowning when he observed it. The ponderosa pine trees were approximately 30 feet apart and were not supportive of a crowning fire at that location.

McLaughlin's Type 6 engine started a wet line along a flank of the slopover area, but anything they put water on was such heavy fuel it was reigniting so he directed his crew to work a scratch line.

While McLaughlin and his crew were on scene the fire had not crossed the drainage to the north and was approximately 200' downhill of the ridgeline.

McLaughlin marked on a map the location where they put the wet line and where the fire was burning when he arrived. In addition, McLaughlin marked on the map the locations where the portable pump hose lines were laid on the northeast (escape) side of the ridge. McLaughlin initialed and dated the map and it is part of this interview record

On 03/28/2012 at 2037 hours, Tokos, Schultz, Schnurr and Roach interviewed Boyd Lebeda, District Forester, CSFS, Fort Collins District Office, Fort Collins, Colorado at the ICP in Conifer, Colorado (Attachment H). Following is a summary of the information provided by Lebeda.

Communications for the entire Lower North Fork Fire took place on VHF radio frequencies. He stated that the command, holding and firing units all used car-to-car, tactical channels. CSFS does not have a manned dispatch. The only manned dispatch in relation to the fire would have been Pueblo Interagency Dispatch. Lebeda did not have any knowledge if there was actual communication with Pueblo Dispatch via the repeater on Devil's Head during the incident. He suspects that the Burn Boss used County Dispatch on 03/26/12. He mentioned that the Burn Boss had indicated that he could communicate with Pueblo.

Lebeda did not think there were any recordings of the radio traffic on the car-to-car channels. He stated that Pueblo Dispatch may have a recording (Attachment I).

Lebeda said that in regard to the Lower North Fork Fire, a burn plan was written, and burn units were identified. A hydro-axe machine was used to thin vegetation, in particular, Ponderosa pine trees. The fuel in the area was not consistent, there were open areas. Unit 4 was a bowl with three prominent drainages.

On Monday, 3/19/12, crews blacklined the top of the ridge. The blackline was approximately 100' wide. The sides were completed with a handline.

Lebeda stated that the burn plan identified a holding crew and a firing crew. On Thursday, 03/22/12, there were more holding resources on site then what was called for in the burn plan. According to Lebeda, the prescribed burn on Thursday was successfully fired and held.

Lebeda mentioned that on 03/23/12, resources went back up to the burn location and secured and mopped up some small spot fires. All spot fires were contained and extinguished. On 03/24/12, patrol and monitoring occurred. He did not believe anyone went back up to the unit on 03/25/12.

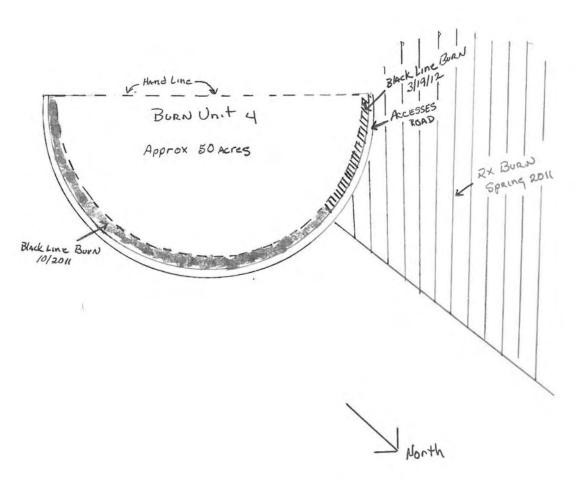
Lebeda said that on 03/26/12, a crew consisting of Kevin Michalak, Robert Kriegbaum (CSFS Technician II/Engine Crew, Golden District Office) and others went up to the burn unit in the morning. He did not think that they saw too much fire activity until the afternoon when the wind picked up and the fire took off.

#### Thursday, March 29, 2012

On Thursday, 03/29/12, the Investigation Team, accompanied by Roach, Fire personnel and Kevin Michalak drove to location of the Unit 4 of the prescribed burn area. Investigative Team members Shannon Tokos (BLM Special Agent) and Troy Schnurr (BLM Park Ranger) interviewed Michalak (Attachment J). Following is a summary of the information that Michalak provided regarding the Lower North Fork Fire.

Unit 4 of the prescribed burn was bordered by the road that ran the ridgeline with a hand line running roughly parallel to the ridge, closing the unit. Michalak stated that Unit 4 contained approximately 50 acres. Roughly four years ago the fuels within the unit were masticated. A hydro-axe was used to treat the fuels below the road, approximately one chain deep (66 feet). After that, the terrain became too steep to use the machine. The goal of the prescribed burn in Unit 4 was to only burn between the road and the handline.

Michalak mentioned burning a test plot near Unit 4 in the spring of 2011 in order to determine how the fire would burn given the fuels and terrain. In October 2011 crews put in a blackline below most of the road along the ridge in anticipation of the upcoming burn. The black line below the road was finished on 03/19/12. According to Michalak, the burn was on property owned by the Denver Water Board.

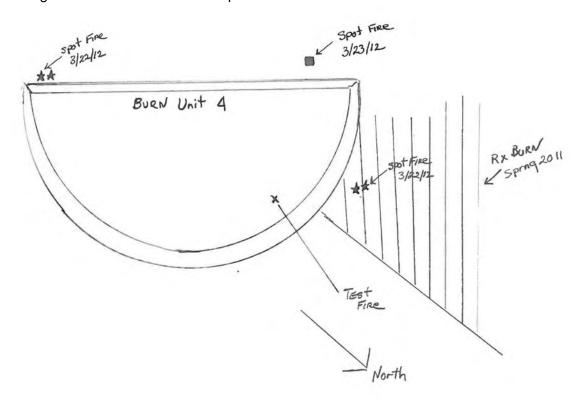


On 03/22/12, the day that the prescribed burn in Unit 4 was ignited, there were approximately 80 people in attendance, including but not limited to:

- 20 person SWIFT (Department of Corrections) crew,
- 20 person Type 2 CSFS crew,
- 6 Type 6 Engines,
- A Type 5 Engine in standby,
- A Type 7 Engine in standby,
- 2 people monitoring Colorado air quality,
- Jefferson County Fire Management Officer, Rocco Snart with a refresher class, and
- A 6 person firing crew from the Platte Canyon Hot Shots.

Unit 4 was ignited on Thursday, 03/22/12 at approximately 1045 hours. The burn began with a test fire that expanded for about 50'. Winds were variable from multiple directions at the time of ignition, but the weather was still in prescription. Michalak stated that there was no burn ban in effect and a red flag warning had not been issued. He said that hazardous weather was not predicted until Monday, but the warning about Monday did not come out until Saturday night or Sunday (3/25/12).

According to Michalak, the plan for Unit 4 was to burn from the black line down to the handline. Michalak stated that the burn was a little difficult due to the shifting winds but the project was successful. During the prescribed burn, Michalak stated that there were 4-5 small spot fires outside of the perimeter. He believed that they were caused by rolling material due to the steep grade and wind conditions. The spot fires ignited in duff and smoldered. Crews were able to completely extinguish them. Michalak also mentioned some isolated tree torching in the interior of the prescribed burn. The burn ended at approximately 1630-1700 hours. Crews remained on site to mop-up until approximately 2000 hours. At the time the final crews left the burn area, there were a few stumps burning and cold weather was setting in. There were no known spot fires when the crews left the area.



On Friday, 03/23/12, Michalak arrived at Unit 4 at approximately 0900 hours. The SWIFT crew, four Type 4 Engines and a Utility Terrain Vehicle (UTV) with water were on scene that day. According to Michalak, there were two areas of heavy smoking in the interior of the burn. There was also one spot fire that had ignited below the handline. Engine crews were working from the road into the burn unit for approximately 100 feet. A hand crew worked the handline and spot fire until the spot fire was completely extinguished. They worked the entire length of the hose lay from the road, which accounted for 1200 feet. Michalak stated that the mop-up work on the unit that day was successful and that there were no other smoking areas or spot fires. The fire was put into patrol status and he left the burn unit at approximately 1700 hours.

On Saturday, 03/24/12 Michalak arrived at Unit 4 at approximately 1030 hours. The SWIFT crew was not on scene that day. Upon arrival, Michalak walked the west (weather station) side of the unit and did not see anything active within two chains (approximately 132') from the road. Michalak did notice one spot in the interior of the unit where an area of needle cast and litter was still smoldering. He knew that the SWIFT crew had worked at that location the previous day (03/23/12) and when they had finished there was very little smoke coming from the site. Michalak also walked the south side of the unit, down to the handline and did not notice anything of concern. According to Michalak, the entire blackline of the fire was completely cold. He left the area at approximately 1400 hours.

Michalak decided not to go up to Unit 4 on Sunday, 03/25/12 because the site looked good the previous day, the weather prediction was favorable, and he intended to visit the site the on Monday (03/26/12).

On Monday, 03/26/12, Michalak returned to Unit 4 around 1030 hours. He was accompanied by Rob Kriegbaum, Fire Fighter I, CSFS, Golden District Office and Ryan Cox, Fire Fighter II (seasonal), CSFS, Golden District Office. Michalak stated that his intention that day was to check the unit and then remove all of the remaining suppression equipment (e.g. hose, pump, signs, UTV). The crew started by collecting Global Positioning System (GPS) data on the unit. Michalak drove Kriegbaum to the west corner. Kriegbaum then walked the bottom handline with the GPS. Michalak then drove to the south side to meet with Kriegbaum. At that time, Kriegbaum informed Michalak that the unit looked good. The only visible smoke was from the interior of the unit at the needle cast area that the SWIFT team had worked on 03/23/12 and from a downed log that was also in the interior of the unit. Michalak then drove the UTV back to the west side of the unit to complete his mapping. Kriegbaum and Cox remained on the south side of Unit 4 pulling up a hose line.

According to Michalak, by about 1230 hours on 03/26/12, he and his crew were on the south side of Unit 4. They had packed everything into their vehicle and loaded the UTV. Michalak noticed that the winds were starting to pick up. He estimated them to be 10-15 mph. out of the south/southwest at that time. Michalak and his crew drove in their truck to the northeast side of the burn unit. At that time, he estimated that the winds were 15 mph. with gusts to 20 mph. out of the south/southwest. Michalak stated that he and his crew noticed small puffs of smoke; he called "duffers", emerging inside the burn unit, below the road. Kriegbaum and Cox jumped out of the truck and began working the area with hand tools. Michalak took the UTV down to a water source near the red gate. He was gone approximately 15 minutes. He stated that when he returned with the UTV, his crew was working 2-3 small spot fires that had jumped the road on the north/northeast side of Unit 4. Michalak said that all of the spots were within five feet of the road, and that nothing went over the lip of the ridge [beyond the shoulder of the road]. Kriegbaum and Cox were using hand tools, and were getting the spots under control. By this time, it was around 1300 hours.

Michalak said that when they were finished with the spots, the crew began working on numerous fires that had ignited on the burn unit side of the road. He mentioned that when they put water on the fires they would dry out in 10-15 minutes and re-ignite. Michalak called Will, on the radio and requested a Type 6 Engine. Will was the Acting Fire Duty Officer. Michalak stated that Kriegbaum may have called Will first, but he was not sure.

Michalak, Kriegbaum and Cox continued to work the area, inside the burn unit, below the road, on the north/northeast side, for 10-15 minutes. Michalak stated that the winds were picking up to 20-30 mph. and gusting.

Michalak started noticing more smoke coming from the south side of Unit 4. Kriegbaum walked toward the south side to check on the smoke. He told Michalak that he did not see anything, only smoke coming from the interior of the burn unit. They continued to work on the area where the fires were occurring on the north/northeast side of the unit. They ran out of water. It was now between 1330 and 1340 hours. Michalak stated that he began noticing more smoke coming from the south side of Unit 4. He took the UTV down to check, and noticed similar "duffing" as they were fighting on the top of the ridge (north/northeast side). Since all of the duffing was coming from inside the black line, Michalak drove back up to his crew.

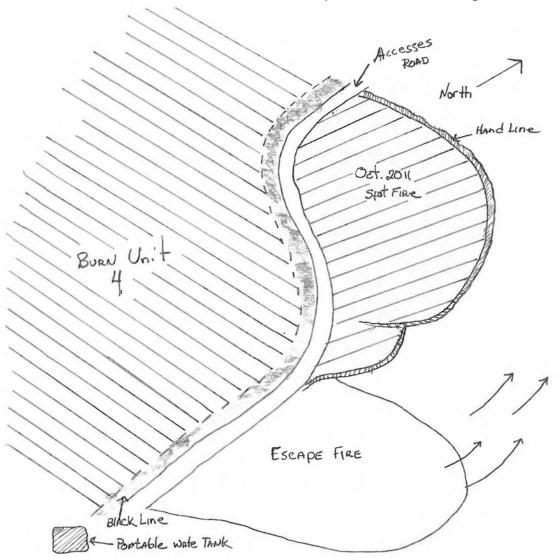
Michalak got ahold of CSFS Engine 862, and they informed him that they were five minutes from the red gate. He and his crew continued to work the area on the north/northeast side with hand tools. They were out of water. He said they were working fires on both sides of the road, but none of fires that were outside of Unit 4 went over the lip of the ridge.

Michalak then noticed, what he described as, a significant amount of smoke on the south side of the unit. He drove the UTV down to check and noticed a fire, approximately 1/10 to 2/10 of an acre in size, outside of the burn unit. The fire was in unburnt masticated fuels. He estimated the winds to be 20-30 mph. Michalak drove the UTV back up to his crew and the vehicle and called Will on the radio. Michalak advised Will of the fire and requested four additional engines and two hand crews. He also requested a Fire Duty Officer and advised Will to check on the availability of the Jefferson County Type 3 Incident Management Team.

By this time, Michalak stated that the CSFS Type 6 Engine had arrived at their location. The CSFS employees that brought the engine to the scene returned to the CSFS Golden District Office in the chase truck, leaving Michalak, Kriegbaum and Cox at the fire, with the Type 6 Engine. Michalak took the UTV back down to the fire on the south side of Unit 4. He stated that the smoke was heavy.

At this point in the interview, Michalak and Tokos were standing at the location where the fire escaped on the south end of Unit 4. Michalak informed Tokos that the day after they burned part of the blackline in Unit 4 in October 2011, they (CSFS) received a call requesting that they go back up to the site and check on the unit. Upon arrival Michalak located a spot fire on the south/southeast side of the unit. The fire was outside of the burn perimeter. They used handline to put it out. Michalak indicated the area where the October 2011 spot fire occurred and identified the associated handline, which was still visible on the ground.

Michalak stated that when he came back down to the fire on the south side on UTV on 03/26/12 the fire had wrapped around the area that was burnt in the October 2011 spot fire and was moving back toward the unit.



Michalak returned to the top of the ridge and staged at that location with Kriegbaum and Cox. He said that they did not initiate any suppression effort on the fire at that time due to the weather conditions and their limited resources. They knew that additional resources were enroute to the scene. Michalak then reiterated that nothing on top of the ridge (the north/northeast side of the unit) went over the lip.

Michalak took the UTV down a two-track road that runs along the bottom of the drainage below the ridgeline. He stated that the fire was still contained between the two roads (the two-track and the ridgeline road). It was heading north with winds of 20-30 mph. and gusting with heavy smoke.

Michalak went back to his crew at the top of the ridge. Additional resources from Aspen Park and Indian Hills arrived on scene along with a fire crew from the Jefferson County Sheriff's Office. At this point the suppression effort began.

When asked about weather data, Michalak stated that there was a weather station near the west side of the unit. He was under the impression that it was functioning, and agreed to obtain weather information for the Investigation Team upon his return to the office (it was later determined that the station was malfunctioning).

When asked about other types of activities in the area, Michalak provided the following information.

- During the unit preparation, which began in the spring of 2011 and continuing through 03/26/12, Michalak did
  not recall seeing anyone other than authorized personnel in the vicinity of the Lower North Fork Fire. He
  said that the red gate was locked and only the Denver Water Board and CSFS employees had keys to
  access the area.
- Michalak stated that on 03/22/11, he observed some of the personnel on scene smoking, but he said that they were primarily in the black.
- On 03/22/12, during the execution of the prescribed burn in Unit 4, Michalak heard some unspent shells go
  off in the interior of the unit. There were no people associated with the shells, and no shooting activity was
  taking place in the vicinity of the fire. He advised that the firing crew had used drip torches and flares to
  ignite the prescribed burn.
- Michalak stated that the area had not seen any rain or weather in "awhile".
- The local community had been made aware of the prescribed burn before it took place on 03/22/12. Michalak stated that signs were posted on 03/18/12 advising of the pending activity and providing a phone number to call with questions or concerns. He was not aware of any calls or complaints.
- Michalak was not aware of any arson activity in the area.
- Michalak mentioned that on Saturday, 03/24/12, he went to the south end of the burn unit and used binoculars to view the area on the other side. He mentioned that he saw an attended fire that was at least one mile down from the burn unit near the South Platte River. He was not sure if it was a campfire or if it was associated with a residence.
- On Friday, 03/23/12, Michalak was on scene at Unit 4 when a campfire in Reynolds Park was reported. He
  believed that the campfire was approximately 1.5 miles from the red gate, or 1-1.5 miles as the crow flies
  from Unit 4 on the west side of Foxton Road.

Later that day, Michalak provided the team with a copy of the prescribed burn plan (Attachment K), a map of the burn units (Attachment L), and a record of CSFS radio communications from 03/26/12 (Attachment M).

On 03/29/12, after concluding the interview with Michalak, the Investigative Team initiated the physical examination of the origin area. The team started with a systematic approach in determining the general origin area by walking around the area identified by Michalak as the perimeter of the initial escape on 03/26/12. The investigators identified and examined macroscale and microscale indicators to determine if the physical evidence left by the progression of the fire matched the information presented by Michalak. The team determined the general origin area, which was documented with photographs (Attachment N) and sketches (Attachment O).

As fire travels through an area it leaves physical indicators on objects in its path. Investigators use the indicators to determine the fire's progression. The Investigation Team entered the general origin area from an area of advancing fire and continued to examine burn indicators. They worked through a search pattern placing colored flags delineating indicators that showed the fires progression. Through this process, the team identified a specific origin area, which was approximately 20' 10" x 10' 10".

Due to decreasing natural light, the Investigation Team left the general origin area at approximately 1730 hours, with the intention of returning the following day to complete the origin and cause determination. Roach made arrangements to secure the origin area.

#### Friday, March 30, 2012

On Friday, 03/30/12, Tokos, Schnurr and Fire personnel returned to the general origin area. Tokos and Schnurr began by documenting the scene with photographs (Attachment P). The specific origin area was then divided into grid lines and each line was examined in detail, visually and scanned with a magnet. During this process, the team continued to identify microscale burn indicators that confirmed the location of the specific origin area. While Schnurr and Tokos were working the origin area, Schultz took aerial photographs (reference Attachment N).

During the examination of the specific origin area, Tokos and Schnurr did not locate a single point of origin or an ignition source. However, evidence of several ignition points was located. These specific points were defined by burn indicators and appeared to be in a scattered pattern within the specific origin area. The burn pattern that the investigators identified showed advancing fire generating from the specific origin area and continuing into the general origin area. Schnurr and Tokos also located what appeared to be the remnants of lightweight airborne embers in a few of the ignition points. These embers were more significantly charred then the surrounding burn indicators. Unfortunately, suppression efforts and wind had damaged the specific origin area to the point that the investigators were not able to confirm whether or not the embers had been disturbed.

The team had the information on the general and specific origin areas layered onto maps for reference (Attachment Q).

On 03/30/12, Tokos and Schnurr returned to the ICP. Schultz was in the process of interviewing Rocco Snart, Fire Management Officer for the Jefferson County Sheriff's Office (Attachment R). The interview took place at the ICP in Conifer, Colorado. Following is a summary of the information provided by Snart.

On 03/16/12 Snart had checked the fuel moisture near the prescription unit and the 1,000 hour fuels were at 34%. Snart stated it is difficult to forecast the winds in that area because of the terrain; it has always been known as a difficult wind area.

Unit 4 had been blacklined the Monday prior (03/19/12). The top of the unit was blacklined approximately one chain deep.

On 03/22/12 Snart was at the Lower North Fork Fire Prescribed Burn briefing. Snart was assigned as the Safety Officer on the prescribed burn as a collateral duty. He had a training crew with him that day (8 people) for their annual fireline refresher training. Snart stated he had the trainees with him most of the day on the prescribed fire unit then he released them at approximately 1430 hours. The trainees were Parks and Open Space Staff and Rangers.

Snart recalled that by approximately 1500 hours the prescribed burn crew had split the firing crews and were igniting in additional locations in Unit 4. The fire was burning well in the interior of the unit. Snart stated that he established the line was secure and there were no imminent threats to the line. At one point there was what Snart referred to as "one tiny spot" outside the blackline and it was recognized immediately and taken care of. Snart marked on a map where he recalled the spot was. That map was initialed and dated by Snart and is included as part of the investigation record with this interview. The spot Snart referred to is to the west of the 03/26/12 slopover areas.

Snart stayed on the prescribed fire until approximately 1930 hours. He recalled that the ignition action had been completed by approximately 1600-1700 hours. The fire was consuming the masticated fuels on the ground and had moved into some of the stringer fuels in the drainages.

Snart stated they started the ignition on 03/22/12 along the west side of Unit 4 and carried it east along the ridge. Schultz showed Snart a map of the area and he marked the location where the prescribed burn ignition started. Snart stated he was not on the "go/no go" checklist signature line for the prescribed burn on 03/22/12. Snart stated he was the one making the "go/no go" decision on that unit last fall (2011) and had cancelled that prescribed burn due to the conditions. At that time (fall 2011) he had blacklined some of Unit 4 and the conditions had led to slopovers during the blackline work so he cancelled the burn. The slopover of the blackline in the fall of 2011 was in the saddle at the ridgeline along the northeast side of Burn Unit 4 so when he heard that the 03/26/12 slopover was in the same area as the fall slopover he knew where it was located.

Snart stated there is a RAWS station, the North Waterton RAWS in the area, but it was not functioning.

Snart stated he has a Type 6 Engine and crew and they returned to the prescription unit at approximately 0900 on Friday (03/23/12) and started mopping up. Snart spoke to Allen Gallamore (CSFS, District Forester) on Friday and was told by Gallamore that the line was secure. Snart understood the crews were going to continue patrol and monitoring on Saturday and Sunday (03/24-03/25/12).

The fire behavior Snart expected during the patrol and monitoring is that the fire would not have surface spread, but would burn out the heavier fuels within the interior of the unit. The purpose of the patrol was to monitor that nothing was jumping the line.

Snart did not receive any phone calls regarding the prescribed fire on Sunday, 03/25/12. On Monday, 03/26/12 Snart's fuels crew returned to their normal operations.

On 3/30/12, Tokos and Schnurr interviewed Ronnie Newman, Deputy, Jefferson County Sheriff's Office, Golden, Colorado (Attachment S). Deputy Newman provided local history and access information in relation to the Lower North Fork Fire.

Deputy Newman's patrol sector includes the area in which the Lower North Fork Fire occurred. The land, upon which the fire ignited, is under the jurisdiction of the Denver Water Board. He advised that public access into the area is controlled by locked gates. Deputy Newman patrols the area often and at no time has he come into contact with unauthorized personal behind the locked gates. He did state that the Denver Water Board leased access to the previous land owner; however, approximately five years ago the lease was revoked due to abusive use.

Deputy Newman mentioned a report of a campfire in the vicinity of Reynolds Park on 3/23/12. He stated that the location of the campfire was approximately three miles from where the Lower North Fork Fire ignited on 03/26/12.

Deputy Newman stated that in the fall of 2011 he responded to a smoke report on the Denver Water Board property, behind the locked gates. Upon arrival he found that a previously ignited prescribed burn on the south end of Unit 4 had crossed the road and reignited. He expressed concerns over the lack of oversight. Deputy Newman stated that he initiated suppression and that the Colorado State Forest Service responded.

On 3/30/12, Tokos and Schnurr interviewed Rich Palestro Technician II/Engine Boss, CSFS, Boulder District Office (Attachment T). Following is a summary of the information Palestro provided regarding the Lower North Fork Fire.

On 3/26/12, approximately 1350 hours Palestro received a call from Gallamore to assist on a "slop over" fire located south of Conifer, Colorado. The fire was reported to be approximately one acre in size at the time Palestro received the call for assistance. Previously that week (specifically on 03/22/12) Palestro had been involved with a prescribed burn that was near the reported location of the "slop over".

At approximately 1530 hours Palestro arrived on scene and estimated that the fire had grown to 20 acres with 30 to 40 mph. sustained winds. Palestro staged his engine to the far south end of the fire were there was a foldable tank with water. He proceed to work with a fire crew to set up a portable pump and establish a hose lay of approximately 600 ft. to try and flank the fire. While the crew was attempting to flank the fire Palestro hiked down the northeast flank to get a better view of how fast the fire was progressing. Once Palestro got into a better position to size up the fire, he found that the fire was making a fast run and that it would be difficult to head off the fire and try to stop the progression. He made the decision to pull himself and the crew out for safety reasons.

On 03/30/12, Schultz and Schnurr interviewed Allen Gallamore at his office in Golden, Colorado (Attachment U). Gallamore is the District Forester for the Golden District, CSFS. Following is a summary of the information provided by Gallamore.

Gallamore explained that the project site of the Lower North Fork prescribed fire is on Denver Water Board land and is a locked site, closed to the public. There is no public access, camping, or picnicking allowed and no public fires are allowed.

Gallamore was present on site the day the controlled burn was ignited (03/22/12). Gallamore stated that on the day of the burn he received a report from Jefferson County Dispatch (JeffCo) that there was an individual at Reynolds Ranch Open Space Park, up on the Eagle Cliff Trail, toward the top of the hill, who came down the day of the prescribed burn and reported a fire that they had seen from the Eagle Creek Trail. JeffCo Dispatch called the CSFS and wanted to know if it was the CSFS prescribed burn the reporting party was seeing. From the information provided by the reporting party, Gallamore at the time, thought it was the prescribed fire

As Gallamore left the prescribed fire area that evening (03/22/12) at approximately 1900 hours, he stopped at the Eagle Creek trailhead parking area on Foxton Road and looked back toward the prescribed fire area as well as toward the area of Reynolds Ranch where the fire report had come from and he saw no smoke or fire activity in the Reynolds Ranch area. The only smoke he observed was in the area of the prescribed fire. Gallamore did not see or contact the reporting party of the Reynolds ranch fire report.

On 03/23/12 Gallamore was aware of a fire page that he believed turned out to be the Reynolds Ranch campfire report from the previous day. The page was for an escaped campfire on the Eagle Creek Trail in Reynolds Ranch. Gallamore stated that Scott Halladay responded and confirmed there was an escaped campfire, burning less than one acre in size. The fire was extinguished and did not escape further. This campfire site was in excess of one mile from the area of the Lower North Fork prescribed fire (reference Attachments D and E).

On 03/26/12, Gallamore was at home when he heard about the prescribed fire escape. He does not recall the exact time, but believes it was around 1300. Gallamore called into the Golden District Office to find out what was happening with the fire response and he later drove into the office.

Gallamore stated that he recalls that on 03/26/12, at the time of the prescribed fire escape, Kirk Will was on his way back from another CSFS prescribed fire in White Ranch and was hearing radio traffic between Kevin Michalak and Brenda DeHerrera in the Golden CSFS District Office related to a slopover on the Lower North Fork prescribed burn. Gallamore stated he understood that Kirk Will was communicating both on the radio and on the phone with DeHerrera and with Rocco Snart at JeffCo.

Gallamore stated that DeHerrera does not normally keep a radio report log of the radio discussion, but Gallamore told DeHerrera to go back and jot some notes down regarding the events surrounding the escaped fire. It is Gallamore's understanding that DeHerrera received the radio calls from Kevin Michalak and was relaying Michalak's information to Kirk Will via the radio or to Kirk Will's cell phone. The radio traffic with the Golden District Office is not recorded.

On 03/30/12, Tokos and Roach interviewed Kirk Will, Assistant District Forester, CSFS, Golden District Office (Attachment V). Following is a summary of the information provided by Will.

On Monday, 03/19/12, Will was the Burn Boss for the prescribed burn in Unit 4. The crews completed the blackline below the road in anticipation of the upcoming prescribed burn. When they were finished, the blackline was one to two chains in width (66'-132'). The area was mopped up completely and there were no issues with spot fires that day.

On Tuesday, 03/20/12, Will remained at the Golden District Office. He sent a crew up to check on the unit and install a hose lay, porta tank and pump. Will did not receive any report of smoke or fire activity from the site that day.

On Wednesday, 03/21/12, Will was involved with burning a unit called White Ranch near Colorado State Highway 93. He sent someone up to the Lower North Fork to check on Unit 4, and they reported that there were no issues at the site.

That evening (03/21/12) Will worked on making arrangements for the prescribed burn that was scheduled to take place the following day. He confirmed that there would be two 20 person crews on site along with the Platte Canyon Firing Crew, Type 6 Engines from Boulder, Fort Collins, Lyons, and Canon City as well as overhead personnel. Will mentioned that signs alerting local residents about the pending prescribed burn had been posted the previous Thursday (03/15/12).

On Thursday, 03/22/12, Will was the Burn Boss for the prescribed burn in Unit 4. He explained that he had double the resources on site, then what was called for in the burn plan. The crews met in Reynolds Park for a briefing at 0830 hours. When Will arrived at the unit, the blackline was cold and looked great. He completed the "Go No-Go Checklist" and determined that the burn was in prescription.

In regard to communication, Will stated that they were utilizing "Jeffco South" and each unit had their own channel (e.g. holding, firing etc.) All channels were being monitored. There was an 800 mhz. radio on scene, and both the Jefferson County Sheriff's Office as well as the Pueblo Interagency Dispatch were notified of the burn.

According to Will, the prescribed burn was lit and the fire progressed without incident. It burnt to the blackline and died out. Will reported that there were 4-5 spot fires during the burn. They were all within feet of the line and were barely expanding. The fire was not spotting frequently, so there was no need to stop the prescribed burn. Mop-up was initiated to secure the line. Will stated that the fire line was secured one to two chains in toward the interior of the burn (66'-132'). The interior of the unit was left to burn itself out. The crews left the area between 1900 and 1930 hours. Will stated that there were no known problems with the burn that day.

On Friday, 03/23/12, the 20 person SWIFT crew returned to Unit 4 along with at least four Type 6 Engines. The crews continued to mop-up the area. According to Will the unit was bordered by two to three chains (deeper in places) of solid black line. Will received a report from Kevin Michalak that there were no issues with the unit.

On Saturday, 03/24/12, Michalak reported to Will that there were two small areas within the interior of the burn unit that were still smoking. Michalak stated that there were at least two chain lengths (66'-132') of cold line surrounding the fire, and nothing was threatening. Will and Michalak discussed the need for crews to return to the unit on Sunday, and they decided that it was not necessary.

On Sunday, 03/25/12, Will stated that the unit was not checked by CSFS personnel.

On Monday, 03/26/12, Will checked the burn unit at White Ranch in the morning and headed back to the Golden District Office. He was hoping to be able to put the Lower North Fork prescribed burn into patrol status by the end of the day. At approximately 1300 hours, while enroute back to the office, Will overheard Michalak call the Golden District Office on the radio and request a Type 6 Engine. Will contacted Michalak on the radio and asked if he needed to respond. Michalak stated that he did not need him at that time.

Will arrived at the CSFS Golden District Office at approximately 1330 hours. He heard Michalak state that the winds had picked up and they had a fire slop over the line. Michalak requested more resources.

At approximately 1345 hours, Michalak called Will on the phone and stated that the unit was experiencing heavy winds and that he needed more resources. Will mentioned that his tabular forecasts did not predict the winds that Michalak was experiencing until that day.

On 03/26/12, at approximately 1346 hours, Will called Rocco Snart, on the phone. Will informed Snart that there was a slopover on the Lower North Fork Fire prescribed burn and requested contingency resources. According to Will, Snart called in additional resources. Will also requested suppression resources from the CSFS, Boulder District Office.

At approximately 1350 hours, Will received a call from Michalak. Michalak stated that the fire was growing fast and requested more resources. Will then called Allen Gallamore and advised him of the situation.

At approximately 1415 hours, Will called Michalak for a status check. Will stated that at 1430 hours, the Lower North Fork Fire was declared as an "escape" because it could not be controlled with on-scene resources even though it was still within the boundaries of the Maximum Management Area, as defined by the prescribed burn plan. Will requested that the Jefferson County Type 3 Incident Management Team be activated along with additional resources. Will stated that there was some discussion regarding activating air suppression, but it was determined that the wind conditions were too high for aircraft to fly.

On 03/26/12, at approximately 1515 hours another fire was reported in the foothills near Lookout Mountain.

According to Will, at approximately 1530 hours Gallamore headed up to the Lower North Fork Fire as the Fire Duty Officer. A Type 7 Engine was sent up to act as a radio repeater. At this point a third fire was reported in the vicinity of Stagecoach and Grapevine. That fire was reported to be approximately 30 acres in size.

At 1600 hours, Michalak reported over the radio that the Lower North Fork Fire escape was approximately ten acres in size. Will then assumed the role of agency representative/liaison and Snart became the contact for resource requests.

On 03/26/12, at approximately 1630 hours the Type 3 Incident Command Team from Jefferson County began taking over the incident.

At 1643 hours, Will heard that Curt Rogers, Fire Chief, North Fork Volunteer Fire Department, had assumed the role of Incident Commander on the fire (reference Attachment E).

Some of the information that Will reported, came from radio transmissions that he heard while in his vehicle or in the CSFS Golden District Office. Additional information was obtained via phone conversations. Will said that he took notes on a CSFS Incident Communications/Action Log, which he referred to during the interview. However, he mentioned that he did not make the notations contemporaneous to the actions. Roach obtained a copy of the log, which is included in the investigative file.

At this point on 03/26/12, Snart requested that Will respond as the State Agency Representative to the Grapevine Fire.

Will finished with the Grapevine fire around 1830-1900 hours on 03/26/12. He then drove to Golden, Colorado to meet with Snart.

On 03/30/12, Schultz and Schnurr interviewed Ryan Cox at the CSFS Office in Golden, Colorado (Attachment W). Cox is a seasonal firefighter (Firefighter 2) with CSFS.

Cox stated he left the CSFS Golden District Office at approximately 1000 hours on 03/26/12 and arrived at the prescribed fire site at approximately 1100 hours. He stated they were pulling the prescribed fire signs down along the way then they proceeded up to the burn unit. At approximately 1245 hours, when they got up to the ridge the winds were really kicking up so Michalak told them to sit on it and pay attention because of the winds. Cox stated Michalak was on the UTV monitoring hotspots and flare ups and he was along the ridgeline and was dealing with slopover spots. Mostly he was able to extinguish the slopover starts by stomping on the starts. While he was dealing with the spots across the line higher up on the ridge Michalak called on the radio for Engine 862 to get more water because of the spots.

Cox stated the slopover was in two locations along the ridge, but it was the southern location that escaped.

Cox provided a typed note page to Schultz at the end of the interview. That note page is included in the investigation file.

#### **Additional Information**

On 03/29/12, the Colorado Bureau of Investigation received a call on their Arson Hotline (Attachment X). The caller, who identified himself as Bill Tyler, stated that he had a "hunch" about the cause of the Lower North Fork Fire.

Roach followed up on the tip. On 04/02/12, Roach received a call from Tyler. In the call, Tyler stated that he had a "hunch" about several fires that had occurred in the last year along roadsides in Jefferson County as well as fires along Parker Road, all the way to Colorado Springs, Colorado. Tyler went on to say that his "hunch" came from information he had gathered from watching the news, which indicated several fires had occurred along roadsides and appeared to be 15 minutes apart. Tyler had no specific information in regards to locations, dates of fires or cause, but it was his belief that an individual was going around and lighting fires.

At this time, the Jefferson County Sheriff's Office does not anticipate any follow-up investigation into the information provided by Tyler.

SUMMARY: (Cause Determined / Undetermined, Causes Excluded / Not Excluded, Subjects Known / Unknown, Actions)

In summary, it is the finding of the Origin and Cause Investigation Team that the Lower North Fork Fire ignited on Monday, 03/26/12 at approximately 1340 hours from lightweight, windblown embers from a prescribed burn that was ignited the previous Thursday (03/22/12) by the Colorado State Forest Service.

Investigative activities determined that the prescribed burn was not completely extinguished on 03/26/12, and heavy winds carried embers from the southeast side of the saddle to the northeast side of the road running along the ridgeline, which was the boundary line for Unit 4 of the prescribed burn. The embers landed in unburnt fuels along the edge of the road, igniting the Lower North Fork Fire.

11 montage of the states			Incident	Incident Number			
***************************************	IDENTIFICA		Incident	Date	03/26/2012		
(0	ODE: S - Subject, W - Witness, V -		er, 0 - Other)				
Name (Last, First, Middle)		Alias	DOB	Race	Gender		
W Cox, Ryan		N/A	N/A	N/A	M		
Address (Home) Parent's Residence		Phone (Home)	Hair Color	Eye Color	SSN		
N/A		N/A	N/A	N/A	N/A		
Address (Business) (Tax Identification	on Number if Required)	Phone (Work)	Height	Weight	License / ID		
Fire Fighter II (seasonal)							
Colorado State Forest Service-	Golden District Office		N/A	N/A	N/A		
1504 Quaker Street			1,712	1,771	14/11		
Golden, CO 80401							
Name (Last, First, Middle)		Alias	DOB	Race	Gender		
W Gallamore, L.M., Allen		N/A	N/A	N/A	M		
Address (Home)		Phone (Home)	Hair Color	Eye Color	SSN		
N/A		N/A	N/A	N/A	N/A		
Address (Business) (Tax Identification	on Number if Required)	Phone (Work)	Height	Weight	License / ID		
District Forester	<u> </u>						
Colorado State Forest Service-	Golden District Office						
1504 Quaker Street			N/A	N/A	N/A		
Golden, CO 80401							
Name (Last, First, Middle)		Alias	DOB	Race	Gender		
W Kriegbaum, Rob		N/A	N/A	N/A	M		
		Phone (Home)	Hair Color	Eye Color	SSN		
Address (Home) 12619 W. Dakota Ave. Apt. 13A	1	Thone (Home)	Hair Color	Lye Color	221/		
Lakewood, CO 80228-2573	1	N/A	N/A	N/A	N/A		
Address (Business) (Tax Identification	on Number if Required)	Phone (Work)	Height	Weight	License / ID		
Technician II/Engine Crew							
Colorado State Forest Service-	Golden District Office		N/A	N/A	N/A		
1504 Quaker Street			IN/A	IN/A	N/A		
Golden, CO 80401							
Name (Last, First, Middle)		Alias	DOB	Race	Gender		
W Lebeda, Boyd		N/A	N/A	N/A	M		
Address (Home)		Phone (Home)	Hair Color	Eye Color	SSN		
N/A		N/A	N/A	N/A	N/A		
Address (Business) (Tax Identification	on Number if Required)	Phone (Work)	Height	Weight	License / ID		
District Forester	V 1 /						
Colorado State Forest Service							
Fort Collins District			N/A	N/A	N/A		
5060 Campus Delivery, CSU							
Fort Collins, CO 80523							
Name (Last, First, Middle)		Alias	DOB	Race	Gender		
W McLaughlin, Bill		N/A	N/A	N/A	M		
		Phone (Home)	Hair Color	Eye Color	SSN		
Address (Home) N/A		N/A	N/A	N/A	N/A		
Address (Business) (Tax Identification	on Number if Required)	Phone (Work)	Height	Weight	License / ID		
Fire Chief, Elk Creek Fire Prot		I HOHE (WOTK)	neight	weight	Literiot / ID		
11993 Blackfoot Road	ACCEPTE A THE TOP		N/A	N/A	N/A		
Conifer, CO 80433			14/71	11/12	14/71		
Comici, CO 60433							

Name (Last, First, Middle)	Alias	DOB	Race	Gender
W Michalak, Kevin	N/A	N/A	N/A	M
Address (Home)	Phone (Home)	Hair Color	Eye Color	SSN
N/A	N/A	N/A	N/A	N/A
Address (Business) (Tax Identification Number if Required)	Phone (Work)	Height	Weight	License / ID
Technician II/Engine Boss	Thone (Work)	Height	Weight	
Colorado State Forest Service-Golden District Office				
1504 Quaker Street		N/A	N/A	N/A
Golden, CO 80401				
·	Alias	DOB	Race	Gender
Name (Last, First, Middle)  W Newman, Ronnie	N/A	N/A	N/A	M
Address (Home)	Phone (Home)	Hair Color	Eye Color	SSN
N/A	N/A	N/A	N/A	N/A
Address (Business) (Tax Identification Number if Required)	Phone (Work)	Height	Weight	License / ID
Deputy	Thone (Work)	Height	weight	Election / ID
Jefferson County Sheriff's Office				
200 Jefferson County Parkway		N/A	N/A	N/A
Golden, CO 80401				
·	Alias	DOB	Race	Gender
Name (Last, First, Middle)		N/A	N/A	M
W Palestro, Rich	N/A			
Address (Home) N/A	Phone (Home) N/A	Hair Color	Eye Color N/A	SSN N/A
		N/A	-	
Address (Business) (Tax Identification Number if Required)	Phone (Work)	Height	Weight	License / ID
Technician II/Engine Boss				
Colorado State Forest Service-Boulder District Office		N/A	N/A	N/A
5625 Ute Highway				
Longmont, CO 80503				
Name (Last, First, Middle)	Alias	DOB	Race	Gender
W Parker, Andy	N/A	N/A	N/A	M
Address (Home)	Phone (Cell)	Hair Color	Eye Color	SSN
6023 Yank Court		N/A	N/A	N/A
Arvada, CO 80004		1771		
Address (Business) (Tax Identification Number if Required)	Phone (Home)	Height	Weight	License / ID
Retired		N/A	N/A	N/A
Name (Last, First, Middle)	Alias	DOB	Race	Gender
W Rogers, Curt	N/A	N/A	N/A	M
Address (Home)	Phone (Home)	Hair Color	Eye Color	SSN
N/A	N/A	N/A	N/A	N/A
Address (Business) (Tax Identification Number if Required)	Phone (Work)	Height	Weight	License / ID
Fire Chief, North Fork Volunteer Fire Department				
P.O. Box 183		N/A	N/A	N/A
Buffalo Creek, CO 80425				
Name (Last, First, Middle)	Alias	DOB	Race	Gender
W Snart, Rocco	N/A	N/A	N/A	M
Address (Home)	Phone (Home)	Hair Color	Eye Color	SSN
N/A	N/A	N/A	N/A	N/A
Address (Business) (Tax Identification Number if Required)	Phone (Work)	Height	Weight	License / ID
Fire Management Officer-Jefferson County Sheriff's Office				
800 Jefferson County Parkway		N/A	N/A	N/A
Golden, CO 80401				

Name (	(Last, First, Middle)	Alias	DOB	Race	Gender
W	Will, Kirk	N/A	N/A	N/A	M
Addres	s (Home)	Phone (Home)	Hair Color	Eye Color	SSN
N/A		N/A	N/A	N/A	N/A
Addres	s (Business) (Tax Identification Number if Required)	Phone (Work)	Height	Weight	License / ID
Assist	ant District Forester				
Colora	ado State Forest Service-Golden District Office		N/A	N/A	N/A
1504 (	Quaker Street		IN/A	IN/A	IV/A
Golde	n, CO 80401				

	3					Incident Number	CO-JEX-000176			
		ATTACHMENTS				Incident Date	03/26/2012			
	Attachment Name									
Α	Lower North Fork Lightening Map, Created by the Department of the Interior, Bureau of Land Management on 04/04/12.									
В	North Fork Fire Weather Data Summary created by B. Schultz.									
С	Department of the Interior, Bureau of Land Management, Memorandum of Activity, Andy Parker, created 04/11/12.									
D		•	Office, Narrative of Phone Interview with							
Е	Jefferson Coun	ty Sheriff's	Office, Narrative of Phone Interview with	Curt Rogers, cond	ducte	ed 04/03/12.				
F	Department of t	he Interior	, Bureau of Land Management, Memoran	dum of Activity, De	on R	oach, created 04/1	1/12.			
G	USDA, Forest S	Service, M	emorandum of Interview, Bill McLaughllin,	conducted 03/28/	12.					
Н			, Bureau of Land Management, Memoran			•				
1			Pueblo Interagency Dispatch Center: CO-	JEX 2012-176, "L	ower	r North Fork Fire" \	Vildfire			
			Number: CO-JEX-176, printed 03/31/12.							
J			, Bureau of Land Management, Memoran				cted 03/29/12.			
K			er North Fork 2012 Prescribed Fire Incide	nt Action Plan, un	date	d.				
L			& Contingency Map, undated.							
M			rvice, Incident Communications/Action Log	•						
N			Schultz on 03/29/12 and 03/30/12, including							
			oint sketch, contact sheets of the photogra			<u> </u>				
0	03/30/12.		eral origin area, the burn indicators, and th							
Р			Schnurr on 03/30/12, including the Departi	ment of the Interio	r, Bu	reau of Land Man	agement			
_	Photo Log and		•							
Q			s of the Lower North Fork Fire general and	<u> </u>	eas,	created 04/04/12.				
R			emorandum of Interview, Rocco Snart, cor							
S			, Bureau of Land Management, Interview			•				
Т			, Bureau of Land Management, Interview		_	conducted 03/30/2	12.			
U			emorandum of Interview, Allen Gallamore,							
V			, Bureau of Land Management, Memorano		Kirk \	Will, Conducted 03	3/30/12.			
W			emorandum of Interview, Ryan Cox, condu							
X	Jefferson Coun	ty Sheriff's	Office, Narrative of Follow-up to CBI Arso		ondu					
P	repared By (Sign	nature):		Submitted To (Name/Title):	tl	Ted Mink/S hrough Don Roach				
						"				

Shannon Tokos/Special Agent

04/12/12

Name/Title:

Date:

Agency:

Date:

Jefferson County Sheriff's Office 200 Jefferson County Parkway Golden, Colorado 80401

04/12/12