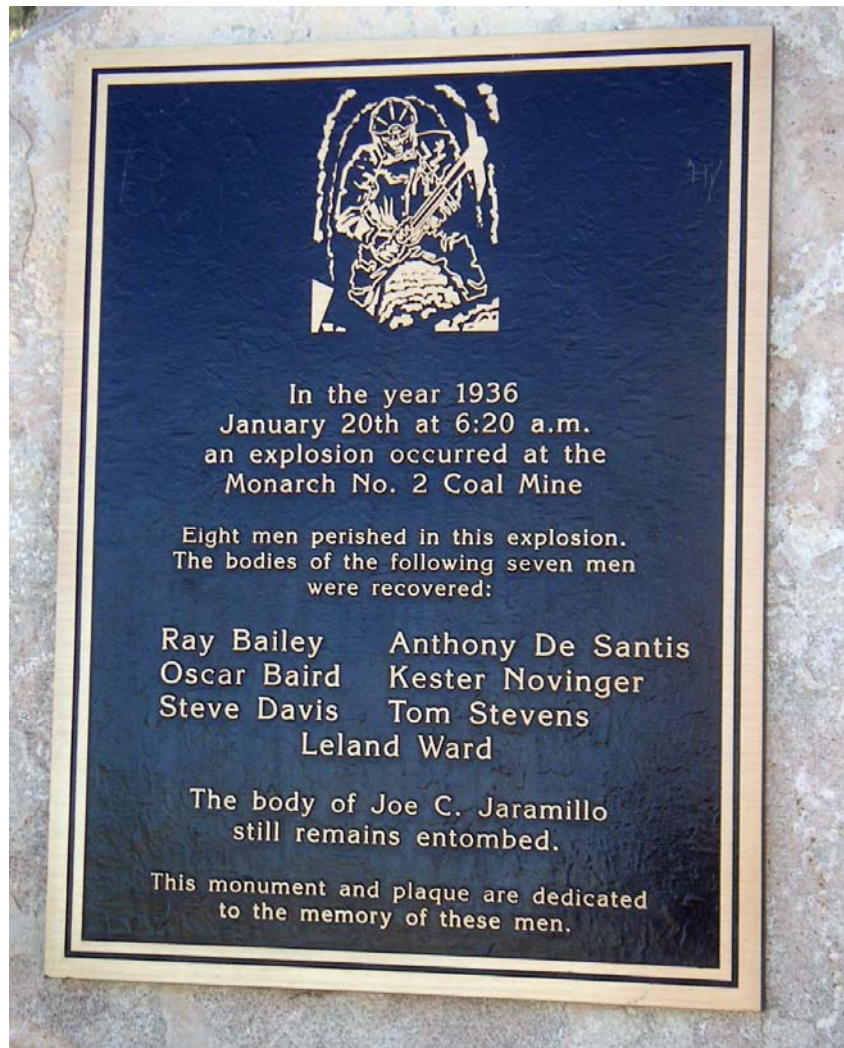


THE LOUISVILLE HISTORICAL MUSEUM
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BLAST: THE 1936 MONARCH MINE EXPLOSION

BY

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By William M. Cohen¹

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I. The Explosion

The headline in the afternoon edition of the January 20, 1936 Denver Post (27) announced to the public what sirens from the Monarch Mine No. 2 shaft house early that morning screamed out to the close-knit Northern Colorado mining community around Louisville:

EIGHT FEARED KILLED AFTER EXPLOSION TRAPS WORKERS IN COLORADO COAL MINE

SPLINTERED TIMBERS BLOCK RESCUERS 300 FEET UNDER SURFACE

Terrific Blast Fills Workings of Monarch Property Near Louisville with Debris; Two Men Escape Uninjured

Denver Post Correspondent D.F. Stackelbeck summed up the key elements of this emerging tragedy, which would have an impact on the trapped miners involved, their immediate and extended families, the close-knit Northern Colorado mining community and even, to some extent, the mining industry:

Louisville, Colo., Jan 20.—A terrific explosion trapped eight men in the wrecked underground workings of the Monarch mines, two miles southeast of here, at 6:20 a.m. Monday.

The trapped men are feared dead, either from the force of the explosion or from the noxious fumes that crept thru the miles of underground workings afterward.

Two miners escaped from the depths after the blast.

Had the explosion occurred three-quarters of an hour later it would have caught 100 men of the day crew underground. (27)

Miners from the day crew were already gathering at the mine shaft house to begin their shift “when the blast cut loose, sending a great gust of smoke, gas and dust up the shaft with a roar that was heard for miles.” (27) At 6:20 a.m., an engineer at the mine noticed “a puff of smoke coming out an air shaft ... located a mile west and slightly south of the main entrance shaft. A second later came the terrific explosion.” (11) Milton Hobbs, a pump and pipe man at the mine who also held a foreman’s certificate testified at the subsequent Coroner’s Inquest held to investigate the cause of this explosion that “as he

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² Revised September 26, 2006. This is a work in progress. As changes or additions are made to this article, they will be posted as revisions to the article on the Louisville Historical Museum webpage: <http://www.ci.louisville.co.us/museum.htm>. Information about the Monarch Mine explosion or about the families impacted by that explosion can be provided to William M. Cohen, 303-444-0970, chra@ucsub.colorado.edu, or to the Louisville Historical Museum, located at 1001 Main Street, Louisville, Colorado, (MAILING ADDRESS: 749 Main Street, Louisville, CO 80027), 303-665-9048. Permission to publish or reproduce all or any portion of this article at any time should be sought from these same sources.

stepped out of his house near the tippie” that morning, “he saw a puff of smoke come out of the air shaft and saw smoke flash out.” (31, at p. 23) Another employee, who was standing a few feet from the hoisting shaft observed “sparks and a ‘Roman candle’ effect in a dense cloud of smoke issuing from the hoisting shaft, [an] indication that flame traveled to the top of this shaft.” (*Id.* at p. 15)

The powerful force of the explosion ripped away “a large section of the metal covering” on the tippie above the main shaft, “and the side of an air shaft about a hundred yards northwest of the tippie was blown off.” Many sparrows lay dead at the base of the tippie after the blast. (11) (27) Flames, smoke and fumes escaping from the main shaft extinguished the light on the safety lamp of one miner waiting to enter the main shaft, indicating the presence of “deadly carbon monoxide” produced by mine explosions. (11) Propagation of the destructive force of the explosion and its accompanying poisonous “after-damp” throughout the tunnels where the night shift was working was facilitated by the presence of excessive amounts of coal dust in those tunnels.

The blast extended over about one-half of the mine workings, bringing down tons of coal, rock, and timbers into the tunnels that hindered and delayed the rescue effort that followed the explosion. (1)(31, at p. 1) “A rat-proof concrete feed bin with walls four inches thick, located near the mule stables in the mine, was pulverized by the force of the explosion.” (5)³ The force of the explosion also “sheared massive shoring timbers from the walls of the shaft,” obstructing the ability of rescue crews to enter the mine through the main shaft and delaying rescue attempts by several critical hours. (30)

II. The Eight Miners Killed

The ten men working inside the mine at that fateful moment were in the last hour of the night or “graveyard” shift. They were in different locations in the miles of tunnels then being actively mined, engaged in a variety of tasks to prepare the mine for its safe operation by the more than 100 day shift miners already shaping up at the top of the mine head shaft.⁴ Eight men were killed, five by the force of the blast or falling debris; three men appear to have succumbed by suffocation from the poisonous gas that erupted following the explosion, called “after-damp”. Two men escaped physically unscathed.

Cousins **John Kester Novinger and Leland J. Ward**, day men, were working on tunnel firewall located approximately one mile of underground tunnels away from the bottom of the main shaft. They were making repairs in the concrete firewall used to seal and “shut off the ever-burning flames in abandoned areas of the mine from the active workings.” (2) This wall was supposed to shut off air from feeding a fire in the nearby non-working section of the mine. (4) About 20-25 miles of abandoned tunnels abutted the active workings, posing a constant threat that either leaking methane gas or encroaching flames could ignite a disaster in the working portion of the mine.

At the time of the explosion, Novinger, 38, employed at the Monarch Mine since October 12, 1935, “apparently had been working on a scaffold” at the top of the firewall, “where he caught the full force of the blast.” (2)(4)

Ward, 46, had recently arrived in Colorado from Missouri. On only his third shift at the Monarch Mine, he had been working on the ground below Novinger, apparently “mixing concrete.” (2) The Boulder Daily Camera reported that Ward’s “body was hardly battered or burned at all, but county officials said he died instantly from monoxide gas.” (4) G. R. Henning, a Louisville mortician who

³ Inexplicably, mules residing in the nearby barn survived unharmed. (1) Mules were used extensively in the mine to haul empty cars into the working faces and to haul out cars filled with coal. About 15 mules were in the mine at the time of the explosion. Approximately 8 were killed; the remainder in the barn survived. (31, at p. 19)

⁴ According to the Federal Bureau of Mines Report on the Monarch No. 2 Mine explosion, this mine employed 105 on the day shift and 94 men on the night shift. (31, at p. 5) However, the mine did not operate on Sunday, January 19, 1936, and only 10 men were present when it exploded the next morning. (31, at p. 14)

examined Ward's body, testified at the Coroner's Inquest that Ward's body was "burned a little on each hand, slight bruises on forehead and chin, no broken bones. Death due to gas or shock." (31, at p. 22)

Tom Stevens, 33, the night shift foreman, worked that night in place of another miner who asked Stevens to take his shift. (28) Another night foreman, John Neish, testified at the Coroner's Inquest that he had inspected the mine around 2:30 a.m. the morning of the explosion. Neish said he found the ventilation was good and that no gas was present at that time. According to Neish, Tom Stevens came out of the mine with Neish at 2:30 a.m., but Stevens "must have re-entered a short time later." (19)

According to the Louisville Times:

Tom Stevens was driving a motor and had started for the coal loading machines which are located at 4th north, about two miles from the main shaft. The position of the motor controls indicated that he had stopped to throw a track switch. Six mules were ahead of him, being driven to the bottom for the day's hauling. The dead mules were found near the body of Stevens and near the motor. (5)⁵

Stevens' body was found some 6100 feet inside the mine. (2) The Boulder Daily Camera claimed that "it was apparent, according to the coroner, that Stevens also died without a struggle and probably as a result of monoxide gas. His face was black but he was not burned extensively." (4) In contrast, the Denver Post reported that "Stevens' body was badly burned." (2) The Louisville Times said that "Stevens incurred a bad cut in the back of his head, probably when he was knocked down by the explosion." This report speculated that "like the others, he probably died instantly, or was at least unconscious after the blast." (5) The Federal Report summarized Henning's testimony as "body burned, no bones broken, body charred from shoulders up." (31, at p. 22) The cause of death was not specified.

Stevens' son, Donald, 5 years old at the time of the blast, vividly recalls seeing bandages on his father's head and arm as Tom Stevens lay in his coffin during his funeral held on January 23, 1936. (28) Don's cousin, Vernon Zurick, a 5th grader in January 1936, remembers seeing Tom Stevens in his casket with a bandage over the top of and all around his head. (29) Neither Don Stevens nor Vern Zurick recalls seeing any burns on Tom Stevens' face. (5)

Miners **Ray Bailey**, 25, a day man, **Tony De Santis**, 37, a shot firer, and **Oscar Baird**, 33, a motorman, were riding together on a trip – a train of mine cars pulled by a motor – driven by Baird. According to the Louisville Times, they were "coming out of the mine with nine cars of rock." (5) The State Mining Inspector's ("SMI") Report and diagram of the explosion shows that these three miners were closest to the force of the explosion which was fixed by the SMI as "originat[ing] on the 13th and 14th West [tunnel] near the 7th and 8th South [tunnel]." (1) As a result of the explosion:

Eight of the cars were detached from the train, and were not located. The other car was still connected to the motor. The position of the controls indicated that the power was half on, that [Baird] had just passed over a hill, and was about to shut off the motor. . . . (5)

In contrast, the Federal Report filed by the U.S. Bureau of Mines' personnel who were on the scene of the explosion and participated in the rescue effort stated that "the locomotive had been on the way to the hoisting shaft with 7 cars of rock and 25 cars of coal. All of these cars were buried under rock falls which could not be traveled over." (31, at p. 4)

Bailey's, De Santis', and Baird's bodies "were found around the motor about 1,200 feet along the 13th entry," (1) "a distance of a mile and a quarter southwest of the main shaft." (5)

⁵ Between five and nine dead mules were found near Stevens' body, contributing initially to the theory that they were directly involved in causing the explosion. (2)(4)

Tony De Santis was found “with only his underwear and a belt left. His other clothing had been blown off by the explosion.” Only one of his feet “could be seen when he was found. He had been thrown 20 feet by the explosion. It was necessary to move a half ton of rock to remove his body.” (5) Mortician Henning determined that De Santis’ body was “burned all over in big blotches, lower jaw broken, and skull fractured.” (31, at p. 22)

Bailey and Baird were found fully clothed. “Bailey was thrown 12 feet and was partly under a mine car, with his head covered by debris. Baird was found sitting in a motor pit.” (5) According to Henning, Bailey’s body was “burned from chest up and skull fractured at base. Apparently no bones broken.” Baird’s body was “charred from shoulders up, no bones broken.” (*Id.*)

Steve Davis, 58, was the “fire boss” in the Monarch Mine when it exploded. (1, at p. 44)(5) It is not clear whether he was part of the night crew finishing its shift on January 20th, or the vanguard of the day shift shaping up for work early that morning.

Davis’ responsibility was “to go into the mine before the day crew entered and make an inspection for gas.” (10) Miners on the day shift were assembled at the main mine shaft entrance the morning of the explosion waiting for Davis to emerge and declare the mine safe for them to enter and begin work. The Louisville Times projected that “had the explosion occurred a few minutes later, there would have been 130 men of the day shift in the mine, as they were ready to enter” and “the loss of human life would have been multiplied many times.” (5) The Daily Camera said that “part of the day crew of 115 men scheduled to enter the mine at 6:50 [a.m.] had assembled near the shaft, so that an even greater catastrophe was averted by about a half hour.” (11) The Denver Post predicted that “had the explosion occurred three-quarters of an hour later it would have caught 100 men of the day crew underground.” (27) The Rocky Mountain News agreed that “if the explosion had occurred an hour later, the entire day shift would have been imperiled.” (30)⁶

Davis carried a safety lamp with him to detect gas in the mine. According to the Denver Post, it was a gasoline-filled lamp. If it burned bright and unflickering, it indicated that the air in the mine was “pure.” If it flickered, it meant the presence of methane gas. Once the oxygen content of the air dropped below 17 per cent, the light would go out, indicating the air was unbreathable, most likely due to the presence of a deadly level of carbon monoxide gas. (10, 11)

Several factors associated with Davis’ fate – his job, his location in the mine at the time of the explosion, his futile effort to escape the rapidly encroaching after-damp, the time and manner of his death, and the location of his body - are crucial to a meaningful investigation into the cause of and responsibility for the explosion and the deaths of these miners. Unfortunately, many of these facts are unclear, were not thoroughly investigated or analyzed by the responsible Government officials, were disputed in the press by the National Fuel Co.’s officials, or were overlooked in the Coroner’s inquest that followed the explosion. Some facts appear to have been concealed from the public.

The main source of information on Davis’ fate comes from various - and varying - contemporaneous newspaper reports. Mine officials and rescuers estimated from Davis’ normal routine and route that he was far enough from the main area of the explosion’s direct impact – designated as the “area of violence” by the SMI’s diagram (1) - to have likely survived the blast and made it to an area where he could have walled himself off from the creeping poisonous gas that flooded the lower levels of the mine following the explosion. (2)

⁶ Reports varied on the number of men waiting at the mine shaft entrance. The Denver Post reported 110 men waiting; the Boulder Daily Camera said it was 115. (10)(11) The Rocky Mountain News said it was “more than 100.” (30) No records of the National Fuel Co. have been located which could confirm the number and names of the miners who narrowly avoided being in the mine that morning when it exploded.

On Tuesday, January 21st, the Denver Post reported:

It was toward this point, more than two miles from the foot of the main shaft, that the rescue parties drove hard, forcing air into the mine with them as they went, at times scooping out with bare hands a way thru which they could crawl on stomachs over debris and rocks.

... Rescuers pointed out that the place they thought Davis could have reached was “forty feet higher than the general 300-foot level on which the explosion occurred and the gas might not have risen so high. (2)

Two days later, the Denver Post reported that shortly after midnight on Thursday, January 23rd, John Neish, the night mine boss, leading a rescue crew of twelve, came upon Davis’ body in the area rescuers projected they would find him, still 4000 feet from an air shaft and potential escape. “They found him just where they thought they would – back in the long recess of the sixth level, south.” (10)

The Louisville Times described the scene:

The body of Steve Davis was found at 12:30 Wednesday night. He was sitting with his face in his hands at 6th south entry, which runs parallel with 5th south. Indications are that he lived after the explosion, that he walked the track for 200 feet, fell and got up again and walked farther and died of after damp. His body was about 4000 feet from the main shaft. (5)

The SMI reported that:

About midnight, January 22, 1936, the body of [Steve Davis]⁷ was found in the inbye workings; his extinguished safety lamp was sitting up right beside him; tracks showed that he had walked some distance before being overcome by *carbon monoxide* poison.⁸ (1, at 42)(Emphasis added.)

The SMI’s diagram of the explosion area was not drawn to scale and lists only a few dimensions. Still, it is clear from the diagram that Davis’ body was found well outside the “area of violence” caused by the explosion, while the others 7 miners were trapped well within that area. (See Explosion area Diagram in SMI Report for the relative location of the 8 miners’ bodies. (1, at 40.))

The Rocky Mountain News on Jan. 24th gave the following account of Davis’ fate:

Fire Boss Davis died of suffocation, rescuers learned early Thursday when they found his body in a sitting position a half mile from an air shaft which would have led him to safety.

Sat Down to Die

Tracks in the dust showed he had spurted along the passageway when the explosion occurred. After running toward the air shaft for a short distance he slowed down – his steps became shorter and shorter – and then he sat down to die.

An experienced miner of the old school, Davis knew he couldn’t outrun or outfight the deadly after-damp which follows in the wake of mine explosions.

⁷ The SMI Report erroneously states that this was Tom Stevens’ body.

⁸ The Denver Post called this gas “after-damp,” stating it was a “deadly mixture of carbon *dioxide* and nitrogen.” (10) However, that combination is known as “black damp.” “After-damp” is defined as “the gas resulting from an explosion; it nearly always contains dangerous amounts of carbon *monoxide*.” See http://www.therhondda.co.uk/gases/mine_gases.html. It appears that after-damp killed Davis and probably Stevens and Ward, also.

From the story told in the dust and the position of his body, fellow miners reconstructed his last hours. When he started staggering he knew the end was near but he kept trying. Several times he fell, only to rise and press on again with feet of lead.

Watches Flickering Light

Finally he sat down, propped himself against the wall of the tunnel, and unfastened his safety lamp. He placed the lamp between his knees and watched its flickering light.

Davis died—even as he knew he would—when his light sputtered a last time and went out. (20)

The Boulder Daily Camera reported on January 23rd that Davis was found at “five minutes after last midnight ...” (26) The Denver Post said that “Davis had lived after the blast – just how long had not been determined. It was hours at least – perhaps a day and part of the first night.” (10)

However, the Camera quoted mine and State officials contradicting this important point:

Superintendent Roy Williams of the Monarch characterized as “poppycock” a report that evidence showed Davis met a terrorizing slow death from suffocation. State Mine Inspector Thomas Allen, while admitting he was not in direct contact with the rescue squad which located the body, agreed Davis could not have lived “for hours” as was rumored and said death was caused from monoxide gas. (26)

The Camera’s report continued:

Struggled Toward Safety

The rescue crew’s report to Williams did indicate, however, that Davis was not killed instantly by the blast last Monday morning, that he struggled a short distance toward the air shaft, that he gradually became unconscious and slumped into a sitting position with his head on his arm.

The fact that Davis’ body was in an upright position and that his safety lamp was propped between his legs probably was “just happenstance,” mine officials asserted, and did not necessarily indicate the man had sat down, watching his safety lamp, and “waited to die.”

Unlike the six others found before him, Davis was not killed by the force of the explosion or by burns. His body, however, was beginning to decompose when it was located. Coroner George Howe said it would be impossible to estimate how long the man had been dead and reach a figure close enough to indicate whether he had lived for several minutes or several hours.⁹

Far Apart From Others

⁹ The failure of the coroner to determine how long Davis lived after the blast may well have contributed significantly to the ultimate conclusion by the Coroner’s Jury that the mining company was negligent in its maintenance of unsafe conditions in the mine but not responsible for the deaths of Davis and of any of the other miners killed in the January 20, 1936 explosion. How long he lived after the explosion was an important factor related to how far and how fast the after-damp traveled in the mine and whether he would have survived if the mining company had not negligently maintained the high level of coal dust in the mine. See discussion in Section V. Investigation, Causation and Responsibility for the Explosion, *infra*.

Davis ... was far away from the others whose bodies have been found. He was about 2500 feet from the base of the west air shaft, which is about a mile in surface distance from the main shaft, in an entry some fifty feet from a main haulage way. (26)

Joe Jaramillo's body was never recovered. The saga of the effort to do so and its aftermath supports a mini-legend including ghost stories and a migrating monument.

The SMI version of Jaramillo's fate states that "Jaramillio [sic] was the barn boss, and when the explosion happened he was driving several mules ahead of him into the working places to be ready for the drivers on the day shift." (1, at p. 43) According to the SMI:

The mine was searched by rescue crews in every direction, but no trace could be found of the last man, Joe Jaramillio. The history of the probable movements of the victims was traced, and it was *an assured fact* that the body of Joe Jaramillio was buried in a very heavy rock fall in the haulage tunnel on the 13th and 14th West. This fall completely closed the tunnel so that no one could get through or over it. All work was concentrated on excavation of this rock fall for the purpose of trying to recover the body of Joe Jaramillio. All work had to be done from the inbye end of the fall, as the condition on the outbye end stopped any possibility of work from that end.¹⁰

... All the mules, excepting two, were accounted for, when excavation was started on the rock fall. The missing mules were found by those excavating for the body of Joe Jaramillo.

Regular crews were kept on, clearing up this rock fall until February 6, 1936, when it was decided that the conditions in the mine were too hazardous to risk any more lives trying to recover the body of Jaramillio.

On February 6, 1936, the mine was ordered abandoned and to be sealed off permanently. This work was done by sealing the air shaft A, and building concrete stoppings at a little distance away from the main air shaft and hoisting shaft. (1) (Emphasis added.) (See SMI Diagram for presumed location of Jaramillo's buried body.)

Jaramillo, 48 or 49, was the "veteran" employee of the Monarch Mine, having worked there for twenty years. (4) As barn or stable boss, he cared for the mules stabled in the depths of the mine in a room off the main south tunnel within 200 yards from the bottom of the main shaft. (11)

On January 21, Jack Carberry of the Denver Post reported that "it was mine routine for Jaramillo to start out at 6 a.m. with his mules from the mine stables underground to drive them back into the workings where they would be used" to haul mine cars full of coal to the haulage area at the bottom of the main shaft. According to Carberry, "Jaramillo customarily used a motor, driving the mules ahead of him, *and miners said the mules kicked up great clouds of dust.*" (2) (Emphasis added.) These work habits of Jaramillo contributed to some of the early speculation about what caused the explosion.¹¹

Bodies of five of the mules were located by rescuers early on in the debris caused by the explosion and the remaining two were found by January 28, in the prolonged, tedious, and dangerous effort to reach Jaramillo's body, presumed crushed under tons of rock brought down by the explosion. (2)(21)(22)¹²

¹⁰ The mining term "inbye" means towards the working face or interior of the mine; away from the shaft or entrance. In contrast, "outbye" means away from the working face; toward the mine entrance. "Glossary: Mining Terms," Kentucky Coal Education, <http://www.coaleducation.org/glossary.htm>, 4 July 2006.

¹¹ Numerous theories about the cause of the explosion are discussed in the "Investigation, Causation, and Responsibility for the Explosion" section of this study. See Section V, *infra*.

¹² The drama surrounding the ultimately fruitless, eighteen-day effort to reach Jaramillo's body is described in detail in the "Attempt at Rescue" section of this study. See Section IV, *infra*.

On February 15, 1936, nine days after the effort to recover Jaramillo's body was ended, the National Fuel Company announced it had purchased a five foot high granite monument. On the monument, according to the Denver Post, would be carved Jaramillo's name (Joe C. Jaramillo), the years of his birth (1887) and his death (1936), and the epitaph, "A Faithful Employee Who Died in the Performance of His Duty." (25) This monument was planned to be put in place "as soon as the ground thawed" directly above the approximate location of Jaramillo's body 300 feet below ground, approximately three-fourths of a mile southwest of the main shaft. "Until that time, a simple wooden cross will mark the spot." (25)(16)(3).

"Several months" after the explosion, National Fuel Co. erected this gravestone-like monument above the location in the mine where Jaramillo's body was believed buried under the rock pile and a memorial service was held there for Jaramillo. (3) Jaramillo's lonely monument sat in place, tended by his family, for 62 years "isolated in the rolling range land due south of StorageTek about a quarter mile from Highway 36." (16)

In March 1998, the developer of Flatiron Crossing, Westcor Partners, moved this monument to a temporary location to allow development of the shopping center on this site. (3)(14)

On June 27, 2000, Frank Varra Park and Miner's Memorial were dedicated on the northwestern edge of the Flatiron Crossing property on the south side of US 36. It includes the original Jaramillo Monument and a new Memorial Plaque dedicated to all of the miners killed in the 1936 explosion. (9) Along with an etching of a coal miner, the plaque recites:

In the year 1936
January 20th at 6:20 a.m.
an explosion occurred at the
Monarch No. 2 Coal Mine

Eight men perished in this explosion.
The bodies of the following seven men
were recovered:

Ray Bailey	Anthony De Santis
Oscar Baird	Kester Novinger
Steve Davis	Tom Stevens
Leland Ward	

The body of Joe C. Jaramillo
still remains entombed.

This monument and plaque are dedicated
to the memory of these men. (37)¹³

III. Escape: Nick Del Pizzo and William Jenkins

¹³ Several security officers at Storage Tek's facilities, built in the 1970's in the vicinity of the Monarch Mine, have reported seeing evidence that Jaramillo's ghost roams Building 6 on their corporate campus. In an October 31, 2003 column, Denver Post writer Al Lewis related some of the observations that Storage Tek security officers claim are manifestations of Jaramillo's ghost inhabiting their building. Al Lewis, "Storage Tek 'ghost in Building 6' mines fear," Denver Post 31 Oct. 2003, reprinted at <http://www.denverpostbloghouse.com/lewis/index.php/2005/11/04/i-aint-afraid-of-no-ghost/>.

Two Louisville miners, Nick Del Pizzo, two days shy of his 34th birthday, and William Jenkins, Jr., 25, were working at a site inside the mine sufficiently far from the explosion area that they were not seriously injured by its force or immediately overcome by the after-damp rapidly spreading through the mine's tunnels. Jenkins, interviewed on the day of the explosion by the Boulder Daily Camera, said he thought that "Nick and I were about a quarter mile away from the others."

"There was an explosion and then a terrible rumbling," Jenkins said. "We were knocked down and a coal car we were loading was overturned. Some way, we managed to find our way to the airshaft." (11)

On January 21st, the Denver Post's Jack Carberry provided a more elaborate description of Jenkins' and Del Pizzo's escape and their conditions afterwards:

Del Pizzo, overcome by the shock of his experience, lay mumbling incoherently in a semistupor at his home.

Jenkins was up and about, but somewhat stunned by shock. His lips were seared and his throat raw. He had evident difficulty collecting his thoughts as he talked.

"I don't know just what happened to us," he said.

"It was the biggest wind I ever felt. It just blew us down flat."¹⁴

"There was a terrible low rumbling that seemed to run everywhere thru the mine."

"At first we didn't know which way to run. We ran the wrong way then we ran to the air shaft. We never stopped till we came out on top."

The two men emerged from a shaft on the open prairie, a mile away from the mine. At first exhausted after their 300-foot climb up the shaft, they lay until they gathered their strength, then went to the mine buildings. (2)

Carberry also reported that these "two men were being hailed as the luckiest ever to go down in the mine." (2) (See the State Mine Inspector's Diagram for Del Pizzo and Jenkins' approximate location at the time of the explosion and the location of "Air Shaft A" from which they escaped. (1))

Two days later, on January 23, the Louisville Times reported that "Jenkins and Del Pizzo first went to the generator room and tried to phone to the office after they heard the rumbling of a distant explosion. Finding the phone out of order, they decided to run for the airshaft. Jenkins knew the way out, and led the way, a distance of about 1,500 feet. They stumbled and fell but were able to keep ahead of the approaching smoke." (5)

The Louisville Times did not indicate it had interviewed these survivors and did not quote them. In subsequent interviews given years after the explosion, Jenkins and, especially, Del Pizzo elaborated on what happened in the mine that fateful morning. In a 1975 Daily Camera interview, Jenkins described the blast: "'It blew chunks of dirt and timbers, pieces of paper and pieces of coal as big as marbles' through the tunnel and knocked the two men to the ground, he said." (3)

In an earlier Camera interview in 1965, Del Pizzo recalled the explosion and escape "this way":

"Bill Jenkins and I were working as maintenance men. We were supposed to keep repairing the walls that set off the section of the mine in which a fire burned continuously.

"We had worked the midnight shift and it was about twenty after six when the explosion occurred.

¹⁴ The Denver Post's initial report by D.F. Stackelbeck stated that "the point of the explosion was so far from [Jenkins and Del Pizzo] that they were not even knocked down by the blast." However, it did not quote either man. (27) Carberry's and the Camera's versions written soon after Stackelbeck's article are consistent with the accounts given by both men years later. (3) (13)

"I can't ever forget that. But I had been under the impression the mine was going to explode any day. I had expected it to happen the day before. I think the fire caused the explosion, but they never said for sure.

"In the place where we were working there was not supposed to be any blasting. We started to hear the commotion and feel the pressure of the air but we didn't know what had happened until we smelled the smoke.

"I told the kid the mine had exploded and he said, 'what are we going to do now?' I said, 'we are going to try to run out and if we don't make it they'll find us stretched out dead!'

"We had to go 800, or maybe 1,000 feet. I said 'we can't go straight, but follow me whatever happens.'

"We started down one tunnel and had only gone 50 feet when we found it had caved in. Then we went back and down another road.

"We started to run and we ran out of the place where we worked. We missed the smoke and had clear air. Then we stopped to rest. But [Jenkins] wanted to go back. We went back about 100 feet to a telephone, but we couldn't get an answer from the surface or from deeper in the mine.

"Then he started to play around in the smoke like a little kid. He wanted to go into another tunnel and I said OK, that I would wait and come on through if it was clear. Or I could go in and bring him out if he got sick.

"It was quite an experience. I think it must have been 7:30 by the time we got out of the mine.¹⁵ Then I went home to see my family and later I went back. (13)¹⁶

In a futile attempt to rescue the other trapped miners, Jenkins subsequently re-entered the mine twice through Air Shaft A, but each time he was turned back by the deadly carbon monoxide gas. (3)(5)¹⁷

IV. The Attempt at Rescue

When the Monarch Mine exploded on Monday, January 20, 1936, at 6:20 a. m., the "startled miners" gathering for the day shift "dropped back from the shaft mouth, and then ran to the [nearby] mine office to set going emergency work." (27)

The first rescue attempts took place shortly after Jenkins and Del Pizzo emerged from Air Shaft A. about an hour following the explosion. The would-be rescuers were A.C. Ward, Mine Foreman and possibly the brother of trapped miner Leland Ward, Joseph Stevens, miner and brother of trapped miner Tom Stevens, and Assistant Mine Foreman William ("Billy") Davitt. Acting independently of the rescue operation being organized by State and mine officials at the main shaft house, these three, along with Bill Jenkins, started to enter the mine through Air Shaft A in the hope of reaching their trapped neighbors¹⁸ and relatives. By this time, however, after-damp was coming up the shaft. They were overcome by the

¹⁵ The Federal Report of the Monarch Mine Explosion stated that Del Pizzo and Jenkins "climbed up the air shaft stairway through a brownish smoke to safety" "about 30 minutes after the explosion." (31, at p. 1-2)

¹⁶ In a 1976, Oral History interview, Del Pizzo related essentially the same account of events from the explosion until his and Jenkins' escape up the 300-foot spiral staircase of the airshaft. See Nick Del Pizzo, interview with Michael Collard, "Study on Coal Mining," 1976 (Carnegie Library, Transcript OH002. (Some parts of the interview are confusing and the transcript has gaps.)

¹⁷ Both Jenkins and Del Pizzo continued to work in coal mines after the Monarch Mine explosion. Del Pizzo came to the U.S. from Italy in 1920. He worked in mines for 31 years. Later, he was injured doing construction work at Rocky Flats. He then worked as a meat cutter at Colacci's Restaurant in Louisville until retirement. Nick Del Pizzo, interview with Michael Collard, "Study on Coal Mining," 1976 (Carnegie Library, Transcript OH002. He died in Louisville on July 19, 1993, at the age of 91.

Jenkins owned a coal mine near Meeker, Colorado for several years. He died in Meeker on April 2, 1994, at the age of 84. (3); <http://ssdi.rootsweb.com/cgi-bin/ssdi.cgi>.

¹⁸ According to the 1936 Boulder County Directory, p. 389, Stephen Davis and his wife Winifred lived at 516 (currently 1021) LaFarge Avenue, Louisville, and Tom Stevens and his family lived across the street at 1016 LaFarge Avenue. William Davitt lived a few blocks away at 702 LaFarge Avenue.

poisonous gas and had to be “rescued by other miners who were around the shaft top” who “used makeshift loops and lines of wire and chains to hoist them out.” The men were revived after they were brought back to the top. (1) (2) (4) (5) (11) (31, at p. 2). Boulder County Sheriff George Richart “later stationed guards at the two airshafts to prevent further attempts to enter” in this manner. (4)¹⁹

“Shortly after 7 o’clock” on the morning of January 20th, officials from the National Fuel Co., the mining company that owned the Monarch Mine, and from the Colorado State Mine Inspector’s Office and the Federal Bureau of Mines began arriving from Denver and elsewhere in Colorado to organize a rescue effort and to investigate the cause of the explosion. These officials included T.E. Jenkins, Vice President and General Manager of the National Fuel Co., and Roy Williams, Superintendent of the Monarch Mine No. 2. Also responding to calls for help were Thomas Allen, State Mine Inspector, and James W. Graham, Sr.,²⁰ Deputy Coal Mining Inspector for Northern Colorado. Deputy Inspectors Hugo H. Machin of the Central District in Cañon City and W. M. Laurie of the Southern District in Trinidad also arrived later at the scene, making a total of 80% of the State mine inspection staff.

At about 8:30 a.m., the State mining inspectors were joined by personnel of the United States Bureau of Mines, E. H. Denny, Howard J. Bird, and W.H. Forbes, along with a federal mine rescue truck, specially equipped with oxygen tanks, gas masks, and other emergency equipment. Volunteer rescue crews from mines in the Northern District as well as crews from the Public Service Company of Colorado and from the Mountain States Telephone Company²¹ “reported for any service they might render; county officials also offered their services and gave help handling the surface arrangements.” (1)(11)(27)(31)

The would-be rescuers were confronted with a complex situation. The conditions in the mine soon after the explosion were extremely dangerous. When officials arrived, “smoke was issuing from the main hoisting shaft.” (1) The experience of the impromptu rescuers at Air Shaft “A” established that poisonous after-damp had spread through the mine tunnels for miles and was coming up that shaft. There was a serious risk and concern that rescue crews could trigger further explosions in their effort to reach trapped miners. Yet, the officials knew that time was of the essence to reach the trapped miners, if any of them were to be brought out alive.

After assessing the situation from the mine surface and balancing these competing considerations, the ventilating fan at the main shaft, still functioning despite the damage to the fanhouse, was employed to clear the main shaft of smoke and noxious fumes, while exploratory crews were organized and equipped for potential rescue attempts. (1)

Meanwhile, according to the Daily Camera, “a milling, orderly crowd of about 350 persons convened at the scene of the mine—many of them mothers with babes in arms.” (11) The Denver Post described the vigil:

About the mine mouth is gathered one of those stolid grim-faced crowds of men, women and children, many of them kin of the trapped men, waiting helplessly until something can be done for the men underground, praying that those men come up alive. (27)

Published photos showed Marge Domenico, sister of Tom Stevens, and Joe Jaramillo’s 12 year-old son, Ernest and his “ever-present dog, Shep,” waiting for the rescue attempt to begin and for some word of their relatives’ fate. (2)(7)(12) The Jaramillos lived in the Monarch Mining Camp adjacent to and surrounding the main mine shaft. Ernest, his mom, older brother Joe Jr. and two sisters undoubtedly

¹⁹ According to the Daily Camera, “William Davis also was said to have started to enter the shaft, but it was not learned whether he is a brother of Steve Davis, who was trapped.” (4)

²⁰ Deputy Inspector Graham was the father of State Representative James W. Graham, Jr. of Lafayette.

²¹ The Denver Post reported that E.L. Holden, manager of the Boulder exchange of Mountain States Telephone & Telegraph Company, supplied rescue crews with an emergency portable telephone and reels of wire, allowing them to be in constant contact with rescuers at the top. (27)

heard and felt the mine explosion beneath them as they awoke that morning and the children prepared to go to school.

Although State Mine Inspector Allen reported that the hoisting shaft at the mine entrance was “cleared” by the fan “in a few minutes” after “about 8 A. M.,” the first crews were lowered into the mine via the east cage “at 10 a.m.,” according to the Daily Camera, three hours and forty minutes after the explosion. (11)

This crew – consisting of James W. Graham, Sr., Monarch miners Milt Hobbs and James Capps, Columbine Mine foreman Charles Hilton and another unidentified Columbine miner – inched its way slowly down the east cage in the main shaft until they were obstructed from proceeding further at about 260 feet below the surface by the debris from the explosion piled between 15 to 30 feet from the bottom of the shaft. “Tenseness at the coal camp over what was feared to be the worst catastrophe in Boulder county’s [mining] history increased” when this exploratory crew was hauled up “at 10:45 a.m. and reported, with solemn shakes of their heads, that the tunnels were badly caved in.” (11) Deputy State Inspector Graham reported: “As far as we could see, the whole place down there is wrecked.” (27) These men were lowered again down the west cage to a point about 10 feet lower than the first effort. From there, they “cut a hole through the timbering from one compartment to another, and reported that men could get to the bottom of the shaft by going through the hole they cut.” (1)(11)(27)(31, at p. 2)

At about 11 a.m., additional crews totaling about 20 men entered the mine by lowering themselves by rope and ladder to the foot of the shaft from the point on the west side where the cage stopped. They proceeded to clear the debris and obstructions, to shore up the damaged areas with timbering, and to make preliminary exploration of the tunnels in search of the trapped miners. (1) Included in these crews were miners Louis Gutfelder, Alvie Berretta, Frank Varley, and Boney LaSalle, one of Tony De Santis’ relatives. (27)²²

One of members of the first rescue squad, Kelly Parsons told the Rocky Mountain News: “‘It looked like hell down there.’ ‘If the falling timbers didn’t kill the men, they succumbed to deadly monoxide gas,’ Parson said.” (30) Unfortunately, as it turned out, Parsons pessimistic assessment was correct.

Such gloomy views, however, failed to completely dampen the hope of the trapped miners’ relatives. According to the Rocky Mountain News, “the fact that ventilator fans remained in order thruout the day and apparently drove fresh air to most parts of the mine buoyed up the wives and children of the trapped men as they kept vigil at the mouth of the shaft -- waiting for some hopeful word from the rescue crews.” (30)

The initial exploration was very tedious and difficult. The trapped miners were “caught behind masses of timbers and dirt tossed into the shaft by a terrific explosion.” (30) The rescue crew at the bottom of the shaft had to work in very tight spaces to clear the fallen debris from the area and to haul it up the shaft and out of the mine. (27) The fan-aided natural flow of fresh air allowed these crews to work without masks and oxygen tanks. A crew consisting of Allen, Graham, U.S. Bureau of Mines officials and some miners, using the natural ventilation, slowly worked its way south approximately 1700 feet down the Main South tunnel from the Main shaft bottom until they reached the intersection with the 7th and 8th West tunnel running east to west. Little damage was found along these entrees. No bodies were found near the shaft bottom or in the Main South Tunnel. (1)(31, at p. 2-3)

“Shortly after noon,” Boulder County Sheriff George Richart also went down the shaft and “wriggled back 200 feet” from the bottom. He found mules alive in the mule barn located on one side of

²² These rescue workers were identified by an unknown source from a copy of a Denver Post photo in the files of the Louisville Historical Museum. (27)

the entrance tunnel close to the shaft. (31, at p. 2) The Daily Camera reported: “That was somewhat heartening because it meant that the monoxide gas was absent or at least present only in a small degree there.” (11, 27) Richart said “the barn was sheltered from the full force of the explosion.” (11) However, the SMI considered it “some freak” occurrence that the mules escaped the violence of the explosion since there was considerable evidence of wreckage on the stable walls and in the vicinity of the barn. (1)(31, at p. 2)

These initial explorations revealed that the explosion did not emanate from old mine fires contained by fire walls in the 7th and 8th West tunnel, but from somewhere along the 13th and 14th West tunnel 1500 feet further South from the main shaft. This was the main haulage-way for coal cars filled with mined coal headed to the haulage lift at the main mine shaft. (1 and SMI Diagram.) However, further exploration of the 13th and 14th West tunnel was prevented by the presence of “carbon monoxide in quantities” sufficient to require helmets and oxygen masks. (1)(31, at p. 3)

Sheriff Richart at this point correctly predicted it could take hours before the helmet crews could work their way back far enough from the main shaft to, hopefully, locate any miners or their bodies in this area. (11)

The first helmet crew entered the mine at 2:50 p.m., Monday afternoon. It included Howard J. Bird, of the U.S. Bureau of Mines stationed in Denver, Joe Bostnick, of Lafayette, and Dan Hodson, of Louisville, employees of the Columbine Mine, Anthony La Salle and Monarch miner Frank Varley, of Louisville, and Hiway miner Louis Gutfelder, of Louisville. (4)²³

About 4:00 a.m. Tuesday, January 21st, the first bodies -- those of Leland Ward and Kester Novinger -- were located “near the fire walls where they were working at the time of the explosion and for some time before that.” (1, 4, 5 and SMI Diagram.)²⁴ A helmet squad equipped with oxygen had to “push their way in” between 4,000-5,000 feet from the base of the main shaft to reach them. “Two hours later – nearly a full day from the time the disaster occurred – the tedious task of carrying them to the surface was completed.” (4, 5) A Camera photo shows members of the “grim-faced” rescue squad bringing out Novinger’s body. (4) Novinger was married to his wife, Pola, and had a 19 month-old daughter, Sally Belle. Ward was single at the time of his death and had no children with his former wife. (17)²⁵

The helmet squad that located these bodies was headed by William Forbes of the U.S. Bureau of Mines and included Hugo Machin, Deputy State Mine Inspector from the Canon City District, John Truesdell, former State Representative from Boulder County James W. Graham, Jr., Joe Bostnick, of Lafayette, an employee of the Columbine Mine, Bob Johnson, and several others. (4).²⁶ It took twelve men to bring a body out “because of the difficulty in moving in the debris-choked passages.” (2)

Next came several hours of dangerous search in gas-filled tunnels as rescue crews wearing oxygen apparatus dug through serious cave-ins. Among the first to reach the scene on January 20th were

²³ Other members of these helmet crews were Monarch Mine employees Nat Miller of Boulder, and John Stevens, Tom Stevens’ brother, of Louisville; Industrial Mine employees Art Thompson of Louisville, Gerald Thorn and Thomas Kerr of Superior, and Columbine Mine employees Bert Alexander, John Zaile, Elmer Moon, Frank Bruger and William Adamson, all of Lafayette, Tom Davis of Denver, Foreman Charles Hutton of Arvada, George Hoos of Boulder, and Jim Snow of Louisville. In addition, J.N. Bayless of Rock Springs, Wyoming, Assistant General Manager of the Union Pacific Coal Co., and a trained helmet crew of three men arrived on Monday night and assisted in this effort. (4)(5)

²⁴ The SMI set the time four hours earlier at “Monday, January 20, 1936, at midnight.” (1)

²⁵ For a detailed account of each deceased miner’s history and surviving family see “The Miners and Their Families” section of this article, Section VI, *infra*.

²⁶ The Louisville Times reported that the helmet squad that located the first bodies included Tony La Salle, Frank Varley, Louis Gutfelder, Jr., Alva Beretta, “and others from other towns.”

E.L. Holden and Earl R. Cummings of the Boulder telephone office, who set up a portable phone system for use by the rescue squads. The mine's system had been destroyed by the blast, except for one phone at the base of the main shaft which remained connected to the mine engineer's office. (4) At about 11:00 a.m. Tuesday morning, the portable system was used to report the location of a third body, that of Tom Stevens, the night boss. (4)(5)²⁷ Stevens' body "was found on a locomotive on the main west entry haulage road just outby 2 north entry," about 6100 feet from the main shaft. (31, at p. 3, 2) Several dead mules were found nearby.²⁸ Twelve men wrapped Stevens' body in canvas, carried it over debris to the main shaft, and hoisted it to the surface about an hour later. (2, 4)

Rescue exploration then was redirected down the Main South entrance into the 13th and 14th West entries. According to the Federal Report, "extensive falls of rock were leveled so that men could get over them readily." Early in the evening of Tuesday, January 21, the bodies of Tony De Santis, Ray Bailey, and Oscar Baird were located in or about a locomotive about 1200 feet inby the main south entries, about 4700-5100 feet from the main shaft. (31, at p. 4)(1 & SMI Diagram)²⁹ "The locomotive had been on the way to the hoisting shaft with 7 cars of rock and 25 cars of coal. All of these cars were buried under rock falls which could not be traveled over." (31, at p. 4). The Daily Camera reported that De Santis, Bailey, and Baird's bodies were found "in a motor car ... at 8 o'clock" Tuesday evening. "The difficult task of carrying them through the tunnels, some of which are only about four feet high, to the base of the main shaft and up in the cage to the surface was completed at 1 a.m." Wednesday morning, January 22nd. (32) Bill Harris, a "buddy in the mine" of Bailey's, was in the rescue squad that helped carry out his body. A fresh air squad of 18 men removed these 3 bodies "with great difficulty," using a board as a stretcher. (5)³⁰

Tensions and emotions of the crowd gathered at the mine entrance were heightened by the worry over the fate of the trapped miners and fear for the safety of the rescue crews operating in the presence of poisonous gases with the ever-present danger of further rock cave-ins or explosions. At one point on the evening of January 20th, mine and government officials faced with bad air coming out of the main shaft decided to reverse the fans to drive fresh air through the mine. This created the risk that oxygen combined with the known existing fire in the sealed-off portion of the mine or with volatile gases coursing in the mine tunnels could cause another explosion. Sheriff Richart was instructed to warn the crowd of this risk, which fortunately did not occur. (4)³¹

The Camera reported that "much of the time" rescue workers worked in "good air. When they reach bad air, but still containing oxygen, gas masks are used. In the more treacherous carbon-monoxide areas large helmets, oxygen apparatus, are used. A special instrument determines when it is necessary to don the helmets." (32)

Miraculously, the rescue workers suffered no "mishaps." (32) However, contrary to a Camera report, (32) at least one rescue worker was overcome by gas. Marion Bailey (Wycoff) (no relation to miner Ray Bailey) was 9 years old and attending the third grade in Boulder on January 20, 1936. Her father, William "Buster" Bailey was a miner at the Monarch Mine. She was picked up at school that day and told that her father was involved in an explosion at the mine. Marion was driven to the Superintendent's house in the mining camp where she was relieved to find her father recuperating. Buster

²⁷ The Camera reported that the call came at 10:00 a.m. and that Stevens' body was hauled out of the mine at 11:35 a.m. on January 21. (4)

²⁸ The Federal Report listed 6 dead mules nearby. (31) So did the Louisville Times. (5) The Camera said there were nine. (4)

²⁹ Tony De Santis was survived by his wife, Adeline, and six children. Ray Bailey left his wife, Helen, and 3 children. Oscar Baird's family consisted of his wife, Opal and two children. See Section VI, *infra*.

³⁰ Also listed in this squad by the Denver Post were SMI Thomas Allen, E.H. Denny and Howard Bird of the U.S. Bureau of Mines, Charles Hutton of the Columbine Mine, and Bayless' Wyoming crew. (2)(5)

³¹ Miners on the surface of mines have been killed by explosions within a mine. See Report on the "Mine Explosion in the Black Hawk Mine," 7 Dec. 1923, files of the U.S. Mine Safety and Health Administration.

Bailey had been part of the day shift waiting to enter the mine when it exploded. He had gone down into the mine with a rescue crew and been overcome by gas. (33)

Hope for finding any of the miners alive faded as bodies were located and brought to the surface. Tom Stevens's three sisters, Marge Domenico, Norma Stevens (Brown), and Mildred Stevens, were in the crowd when his body was brought out. Stevens' wife, Josephine, was reported to be "prostrated at her home with her son, Donald, 6." (2)³² Novinger's wife was described as "standing in the wan-eyed crowd of women pressing at the ropes around the mine mouth" when his body was carried out. "She gave way to grief when hers was the first certainty that her husband was dead." (2) All day Monday, following the blast, and Tuesday, Joe Jaramillo's youngest son, Ernest, 12, "hung close to the shaft head with his dog, Shep, at his feet. Now and again the boy would run to his home in the camp and reassure his mother, then dart back." (2 and photo of Ernest and Shep)

"A spark of hope" that Steve Davis might have survived the blast and the deadly gas that followed was fueled by opinions circulating in the crowd that Davis' routine might have resulted in his being far enough from the explosion area that he could have "taken rescue in a room and walled himself off" with canvas or timber to keep out the gas. (2)(4) A rumor circulated in the waiting crowd "that a tapping sound was heard in the mine – as though Davis, perhaps, was signaling for help." This was "flatly denied" by State and local mine authorities and rescue crew members who had been in the mine. (32)

As the Camera noted, Davis was believed to be in a different section of the mine from the other miners and "the outside hope that he might have reached a room and might be alive will persist in some minds until he is found." (32) Those hopes were dashed when searchers found Davis' body around midnight, Wednesday, January 22, "a short distance off of 5 south entry on 3rd east entry." (31, at p. 4) According to the Federal Report, "he had traveled some distance as evidenced by his tracks and had died of carbon monoxide poisoning. His flame safety lamp, extinguished, was sitting upright by him; his electric cap lamp was not burning." (31, at p. 4)(10)(1 & SMI Diagram) His body was brought to the surface around 2:00 a.m., Thursday morning, January 23rd. (26)

According to the Denver Post, rescue parties had known since Monday "just where Davis' body would be found." However, "because of the gas from the after-damp, they [were] unable to penetrate the sixth level" to reach him. "It was not until Wednesday night that air, directed by brattice cloth barriers, had been circulated thru this tunnel in sufficient quantity to allow the men to enter the chamber," where they located Davis' body as expected. (10)

The Camera reported that Davis' wife, Winifred, "who had been induced to return to her home in Louisville, was not informed that the body had been recovered until late Thursday morning." (10) This couple had no children. (11)

New crews were sent into the mine "immediately after Davis' body was removed in an effort to reach [Joe] Jaramillo's body," the sole remaining trapped miner. Beginning with Wednesday's editions, newspaper accounts stated that it was known "almost definitely" that Jaramillo was "completely buried under tons of rock." (32) The next day, the Denver Post concluded "there was no possibility that the man could be alive. He is buried under a fourteen-foot rock cavein." (10)

As bodies were recovered, family members and friends left the mine shaft vigil to plan and attend funerals, beginning with services held for Tom Stevens' on Thursday afternoon, January 23rd. (12, 34)

³² Donald Stevens, born on May 17, 1930, was only 5 years old on January 20, 1936.

Services and/or burials were held for the seven miners whose remains were recovered while the search for Jaramillo's body continued.³³

By Thursday, January 24th, only Josephine Jaramillo, Joe's wife,³⁴ and his son Ernest with "his ever-present dog, Shep, at his heels," beside her, stood a lonely vigil while harboring a futile hope Joe would be found alive or his body would be recovered. Friday's issue of the Rocky Mountain News confidently predicted that "Jaramillo's body will be found within the next few hours, rescuers believe, as they are certain it rests under a heavy rockslide." (20) Mrs. Joe Tapp, keeper of the Monarch Mine Camp boarding house, offered Josephine coffee and pleaded with her "to come into the little hotel and rest." "'I'll wait for Joe,'" the News quoted as her reply. "Maybe they find him." (12)³⁵ Despite a concerted effort by recovery teams, who no longer considered themselves "rescuers," it was not to be. (36)

Jaramillo's body was believed buried under a huge rock fall at the seat of the explosion. On Sunday, January 26th, the Denver Post reported that "the rock fall is approximately 500 feet long and is twenty feet deep in most places. Crews, hampered by bad air, have been attacking this huge mass with picks and shovels and wheelbarrows, so that progress is extremely slow." Thomas Allen, the State Mine Inspector, said it might take weeks to recover Jaramillo's body and that work might have to cease in a few days unless heavier mining equipment could be brought in to assist in this effort. (35) Still, crews of about eight or nine men – the maximum number that could work at one time in the caved-in tunnels – continued the effort to locate Jaramillo's body in uninterrupted shifts up to seven hours at a time. (32, 36)

By Tuesday morning, January 28th, eight days after the explosion, these crews had advanced only 33 feet into the 500-foot long rock pile believed to be covering Jaramillo's crushed body. At that point, Inspector Allen ordered the work crews out of the mine because of the danger to them from falling coal. Timber was brought in to brace-up the top of the tunnel. "Cramped for lack of space," the Camera reported, "and working carefully to prevent additional cave-ins," each crew could only advance "two or three feet during each seven-hour shift." They had progressed only 40 feet into the huge rock pile in five days. The bodies of two mules presumed to have been with Jaramillo at the time of the explosion were located in this debris, but no trace of Jaramillo was found. (22, 21, 31)

By that time, concerns about both the safety of the recovery workers and the cost of the effort,³⁶ prompted the National Fuel Co. officials to make two offers to Mrs. Jaramillo in an attempt to induce her to consent to abandoning any further search for her husband's body. First, they offered to pay her \$1,000. The Superintendent of the Monarch Mine, Roy Williams, was quoted by the Camera as stating that this sum of money "would be 'simply a gift ... because we have found no law which requires us to recover the body.'" If Mrs. Jaramillo accepted this money, it would be in addition to the approximately \$4-5,000 total she was expected to receive because of her husband's death in the mine from insurance carried by National Fuel Co. in the event of the death of its miners from mining accidents. (22)(24)

³³ Stevens was buried in the Louisville Cemetery. Oscar Baird's body was shipped to La Follete, Tennessee, his former home, on Wednesday evening, January 22nd. Novinger and Ward's joint funeral was held on Friday afternoon, January 24th. They were buried in adjoining graves in Green Mountain Cemetery in Boulder. Bailey's funeral was held that same day at the Crescent Grange Hall in Broomfield. He also is buried in the Louisville Cemetery. (18) Tony De Santis' funeral was on Friday morning. He, too, is buried in the Louisville Cemetery. (17) Steve Davis' funeral was held at the Henning Mortuary in Louisville on Saturday, January 25th. His body was sent to Florence, Colorado for burial. (34)

³⁴ Several newspaper reports referred to Mrs. Jaramillo as "Dolores." (12, 21) Her grandchildren, one of whom was named after her, are certain that her name was "Josephine." (39)

³⁵ According to the Louisville Times, "Mrs. Tapp served more than 300 lunches at the Monarch Hotel on Monday, and has been feeding the hungry day and night since then, with the help of several extra assistants. She had sold 78 gallons of coffee up to Wednesday morning." (5)

³⁶ According to the Camera, "From one source it was reported this work is costing the National Fuel company 'from \$500 to \$1,000' every day." (22)

The mining company also offered to dedicate a portion of the Monarch Mine where Jaramillo was believed buried as his “grave site” and to erect a tombstone-like monument to him above that location. Company officials reportedly “told Mrs. Jaramillo they would run a survey to determine the point on the surface directly above the place where Jaramillo lies.” A small plot on the prairie above the spot would be fenced and a headstone marker erected there. (21)(22)(SMI Diagram) However, still hoping that her husband’s body would be found and brought to the surface, Mrs. Jaramillo at this point would not consent to these offers. SMI Allen deferred to her wishes, but noted that the difficult, slow and dangerous work to find Jaramillo would continue perhaps for two more days. The finding of two dead mules in the area being worked raised hope that Jaramillo’s body lay nearby. (21)(22)

A few days later, as the search for Jaramillo’s body continued beyond Allen’s deadline, a report surfaced that Jaramillo had been wearing a money belt containing \$900 at the time of the explosion. The source of the report, Roy N. Austin, of Louisville, the Clerk to the Boulder County Commissioners, said the information came from Jaramillo’s wife, “who said her husband always carried his savings with him.” Austin claimed to be acquainted with Jaramillo and “knew this was the miner’s custom.” (23) Mrs. Jaramillo’s objection to terminating the search was later attributed by her friends in part to the potential loss of these sorely needed funds to help support her and her four children following her husband’s death. However, these same friends later said that Jaramillo’s savings were found in a Louisville bank account. (24)³⁷

On Thursday, February 6, 1936, SMI Allen ordered search for Joe Jaramillo abandoned. He publicly gave three reasons for this action:

“First, fire in abandoned areas might break through stoppings; second, the mine was only temporarily ventilated; and third, there might be a second explosion.

“I hated to leave the body of Jaramillo in the mine,” Allen said, “but workers would be trapped like so many rats if the fire walls broke out. We couldn’t take the chance.” (24)

Workers had advanced about 75 feet over 11 days, digging into the huge rock pile where Jaramillo was believed to be buried, before the search was abandoned 17 days after the deadly mine explosion. (24, 31, 1) Allen decided then “that the conditions in the mine were too hazardous to risk any more lives trying to recover the body of Jaramillo.” (1)³⁸

The words of one unidentified Louisville coal miner, who entered the dangerous mine tunnels each day to search for the bodies of his fellow miners, reflects the attitude of the miners who toiled so long and hard in that risky task:

“I figured that if I was down there buried under that rock pile those fellows would do that much for me, so I do it for them.” (5)

About a week after the search ended, National Fuel Company announced it had purchased a five-foot high granite monument to serve as Jaramillo’s grave marker 300 feet above where his body was

³⁷ Jaramillo’s grandchildren, Josephine Najera and Betty Barela, confirmed that, to their knowledge, Joe, Sr. did not bank his money, he did not believe in banking. They therefore doubt that the story of his having money in a bank account was true. However, they have no knowledge about whether he had money in a money belt in the mine or what other compensation, if any, their grandmother might have received because of Joe, Sr.’s death and non-recovery of his body. (39)

³⁸ On February 6, 1936, Allen also ordered the damaged section of the mine abandoned and sealed off permanently. This was done “by sealing the air shaft A, and building concrete stoppings at a little distance away from the main air shaft and hoisting shaft.” Thereafter, the shafts were sunk to a depth of 105 feet below the 300-foot level of the explosion and the mine re-opened in late 1936. (1)(16)(22). The Monarch Mine No. 2 continued to operate until 1947, when it closed for good after 40 years of operation. (40)

entombed in the shuttered Monarch Mine No. 2. The monument, to be set on a granite base, would bear Jaramillo's name and the years of his birth and death along with the simple epitaph:

"A Faithfull Employee Who Died in the Performance of His Duty." (37)

Several months later in 1936, Jaramillo's monument was erected with a metal fence around it. There it sat as a lonely reminder of the largest mine disaster in Boulder County history in an empty field about three-quarters of a mile southwest of the Monarch's main shaft. (3, 25) For decades it was maintained by Jaramillo's granddaughter, Nancy Martinez. On June 27, 2000, this monument was moved to a permanent location in Frank Varra Park by Westcor, the developer of Flatiron Crossing. Nearby was erected a memorial plaque in memory of all eight miners who perished in the Monarch Mine No. 2 explosion on January 20, 1936. (38)(37)

V. Investigation, Causation and Responsibility for the Explosion

1. Theories of the Cause of the Explosion.

Speculation by both officials and miners about what caused the Monarch Mine explosion began soon after the blast occurred. Various theories were expounded.

The Camera's Jan. 20th edition stated that "the cause and circumstances of the explosion were purely speculative, and authorities of the state and federal bureaus said they were concerned at present with getting into the mine, letting the investigation of the cause go until later." (11) Still, it quoted SMI Allen saying, "Possibly there was a short circuit in the wiring, possibly the fire broke out, or there may have been something else – nobody knows." (11) The fire to which Allen referred had been burning in this mine for years in the worked-out portion of the mine adjacent to where the active mining was located. Novinger and Ward were working on repairs to the walls separating the two areas at the time of the explosion. However, Allen said that just the day before the explosion, "the fire was under control." (11)

The Denver Post that first day was a bit more explicit, claiming that Allen "said the explosion might have been caused by this fire bursting thru, or it might have been caused by an electric spark *igniting gas*." (27)(Emphasis added.)³⁹ T.E. Jenkins, the mining company's Vice President and General Manager, appeared to support this theory by expressing his belief to a Rocky Mountain News reporter that "a chance spark ignited gas which had accumulated in the tunnels over night." "It is possible," Jenkins hypothesized, that inflammable gas from the long-burning fire in the mine "had slowly filled the upper level." (30) This speculation, if accepted by State and Federal Government officials, might exonerate the mining company from responsibility for this explosion by deflecting attention away from hazardous conditions Jenkins knew existed in this mine that could also have caused the explosion or exacerbated it effect considerably.

The next day a new theory, purportedly circulated by "experienced miners, some of them in semi-official capacities, seemed to be crystallizing in the belief the fatal explosion was caused by a collision of two motor cars or one motor car and several mules." (4) Boulder Sheriff George Richart, who had been down in the mine, also "came up with the announcement he believed a collision had been the cause of the explosion." (2) This theory evolved as follows:

Studying the probable movements of the miners who were in the mine, fellow-workers considered it possible that Jaramillo was in a motor car "herding" the mules in front of him, and that a collision occurred on a curve with a motor occupied by Baird and Bailey. This contact

³⁹ The Post also stated that the "Monarch does not have a reputation of being a gaseous mine, however." (27) To the contrary, the Federal Report states that "the Monarch No. 2 mine is rated by the Colorado State Mine Inspection Department as a *gassy* mine." (31, p. 6)(Emphasis added.)

could have caused an arc, or a spark, which would explode the *dust* kicked up by the mules. (4)(Emphasis added.)

The mine tunnel intersection where this collision allegedly occurred was known as the “Big Parting,” presumably where tunnels 7 and 8 North crossed the Main South tunnel (See 1, SMI Diagram). (2) This theory assumed that a second motor and Jaramillo’s body would be found near where the first motor and Baird’s, De Santis’ and Bailey’s bodies were located. (2)

However, T.E. Jenkins, the mine owner’s representative, “discounted this theory.” (4)⁴⁰ As we shall soon see, the mining company did not want anyone to conclude that this incident was caused by a coal dust explosion.

Within the next two days, several of these theories were eliminated. On Wednesday, January 22nd, the SMI and other officials agreed that the “fire in the mine had nothing to do with the disaster. The concrete wall which sealed off the fire has been found to be in good condition – not even damaged by the blast.” (1)(31, at p. 3)(32)

Also, officials would not confirm or deny reports of the collision of motor cars or of motor cars and a group of mules. Still, the Camera was reporting with certainty that a “cloud of gas formed in the mine – not unusual because the Monarch produces gas,” but what caused the spark “which ignited the gas” was still unknown. Nevertheless, “one official pointed out that the dust kicked up by the mules could not in itself cause an explosion,⁴¹ but that the dust will intensify and propagate a blast.”⁴² (32)

Finally, by Thursday, January 23rd, officials discarded the theory that a collision caused the necessary spark to ignite some type of explosion because the motors were located 1,000 feet apart. Also, neither Jaramillo’s body nor the motor he was supposedly driving were ever located. Clearly, they were not anywhere in the vicinity of the motor on which Baird, De Santis, and Bailey had been riding at the time of the explosion. (5).

The reason the mine company was promoting the “gas explosion caused by a spark or collision” theory was revealed in the next day’s Rocky Mountain News. The night before, it became public knowledge that Deputy State coal mine Inspector James W. Graham, in charge of inspections for the Northern Colorado District, had inspected the Monarch Mine on November 21 and 22, 1935, accompanied by A.C. Ward (believed to be Leland Ward’s brother), W. Davitt, and “the fire boss, Steve Davis, whose body was found early [that] morning.” (20) Among other safety concerns, Graham’s inspection report submitted to SMI Allen found that the mine’s “haulage ways [were] dry, dirty, and dusty.” Graham was aware that “subbituminous dust can explode if there is a fire or similar cause.” (31, at p. 25) Graham’s recommendations to Allen “suggested [that] the dusty haulage ways be sprayed or sprinkled.” (20) Such a mitigation step was known to prevent coal dust explosions and reduce propagation of gas explosions, thus avoiding or containing coal mine explosions and saving miners from injury or death.

⁴⁰ So did the Federal Report: “Whether eight mules, some of them possibly running and kicking, could have stirred up enough coal dust to be lit by a trolley arc seems unlikely but perhaps possible.” (31, at p. 18) Deputy State Inspector Graham concurred. (Id. at p. 25) However, explosion-survivor William Jenkins thought the combination of coal dust and methane gas was responsible for the explosion. In a 1975 interview, Jenkins said, “the coal dust five to six inches deep on the floor of the mine was constantly being blown into the air by methane gas feeding into the tunnels. ‘It was like having slow burning powder in a rifle,’ he said.” (3)

⁴¹ The Federal Report established that the subbituminous coal dust in the Monarch Mine was indeed ignitable, a fact crucial to establishing responsibility for the explosion and the deaths of all of the miners. (31, at p. 13-14).

⁴² This undisputed fact – that large accumulations of coal dust unmitigated by rock dust or water will intensify and propagate a mine explosion – is material to the assignment of responsibility for Davis’ death and possibly for some or all of the other miners’ deaths. (31, at p. 25)

Revelation of the contents of the November 1935 inspection report and safety violations prompted varying, inconsistent, and hedging statements by State and mine company officials about possible causes of the Monarch Mine explosion while being careful not to point the finger of responsibility for the explosion towards negligent conduct by National Fuel Co. For example, a Rocky Mountain News article reported that officials said “tho the operators have made every effort to correct the difficulty,” i.e., the dry, dirty, and dusty conditions in the mine’s haulage ways, “*dust* may have been responsible for the blast.” (20) (Emphasis added.) Still, SMI Allen is quoted as stating, ““We cannot reach a definite conclusion until we have made a complete and thoro investigation.”” (20) Allen also “expressed confidence in T.E. Jenkins . . . who worked day and night with the rescue crews.” (20)

Jenkins, for his part, continued to attempt to deflect public focus away from the accumulation of coal dust in the haulage ways as the source of the explosion. While admitting that ““there was no appreciable gas in the mine proper,”” based on his own regular inspections in addition to the customary inspections, Jenkins advanced the “possibility a *minor* dust explosion destroyed stoppings built in the mine years ago, releasing gas which then exploded with terrific force.” ““We have found two stoppings intact,” Jenkins said. ‘As soon as we reach two more this possibility will definitely be settled.’” (20) (Emphasis added.) This theory, however, was never substantiated. The remaining two stoppings were also found intact. (31, at p. 3)

However, another speculative theory was also floated at this time:

A heavy fall in sealed-off workings might have generated enough gas to blow out stoppings and cause an explosion in the mine proper, without dust ever having entered into the tragedy, officials said. (20)

This theory was also not substantiated, however.

Graham’s November 1935 safety inspection report was transmitted by SMI Allen to Jenkins. On December 14, 1935, Jenkins, on behalf of the mining company, “informed Allen that spraying or sprinkling was not practical, as it would endanger maintenance due to the condition of the mine bottom.” Two days later, Allen and Jenkins discussed the dust problem. The result was that Jenkins “purchased rock dust to nullify the coal dust.” (20)

However, this rock dust was not adequately spread in the dangerous, coal dust contaminated Monarch Mine haulage ways during the two month period between the inspection and the explosion. The Federal Report stated that the “*mine was not rock-dusted* but the National Fuel Company before the explosion had secured a number of tons of rock dust to be used in dusting haulage roads.” (31, at p. 14)(Emphasis added.)

Over the weekend following the explosion, the January 26th Sunday Denver Post reported:

At this time, [SMI] Allen says, *he inclines to the theory that the explosion was caused by lignite dust*, although he said some investigators are working on the theory that gas leaking from some of the old workings was responsible. The theory of a collision of two motor cars has been abandoned. (35)(Emphasis added.)

2. The Coroner’s Inquest

Meanwhile, Boulder County Coroner George W. Howe was preparing to convene a Coroner’s Inquest to determine the cause of the explosion and whether there was probable cause to believe anyone was criminally responsible for the deaths of the eight miners.

Howe had been delaying the inquest with the expectation that Jaramillo's body would soon be found and the expense of a second inquest would be avoided. However, by Saturday, January 25th, the jurors had already been selected and had viewed the seven recovered bodies as required by Colorado law. (36)

In preparation for the Inquest, SMI Allen, accompanied by three U.S. Bureau of Mines representatives, E.H. Denny, Howard Bird, and William Forbes inspected the mine on Monday and Tuesday, January 27th and 28th, and took numerous air, dust and gas samples. These samples were sent to the Bureau of Mines laboratory in Pittsburgh for analysis. However, the results of those analyses were not presented at the Inquest held on Thursday, January 30th, at the Henning Mortuary in Louisville. (35)(31, Appendix)(19) Of more significance to the thoroughness of the information presented at the Inquest, federal regulations prohibited any of the federal officials testifying at that proceeding until the Bureau of Mines completed its investigation. (6) That was not accomplished until June 1936. Those officials, however, apparently were present at the Inquest. (31)

The Inquest was presided over by Coroner Howe, with Howe, Boulder County Deputy District Attorney James D. Lewis, and SMI Allen examining witnesses. (31, at p. 21) The jurors were Henry Schaeffer, Clyde Kearns, and H.C. Beard, all of Boulder, and Harold Machin, Angelo Ferrari and Herman Biella, all of Louisville. Contemporary newspaper accounts of the testimony at the Inquest were sketchy, incomplete, and somewhat inaccurate and misleading. The only other source of information about that testimony is a "Summary of Coroner's Inquest" included in an Appendix to the Federal Report (31, at p. 21-28.) That Report, stamped as received at the Bureau of Mines in Pittsburgh, Pennsylvania, on June 8, 1936, (31, at p. 1) was apparently not made public until recently when it was obtained by this author and another researcher.

The Inquest began around 1:00 p.m. on January 30th and concluded with the jury's verdict around 7:00 p.m. that evening. (22)(41) The first witness was G.R. Henning, a Louisville mortician who examined the deceaseds' bodies and prepared most of them for their funerals. (19) Henning described the condition of each body as follows:

- (1). John Novinger – body charred from shoulders up and head charred and burned; upper part of breast crushed, left foot off at ankle, clothing stripped and body perforated with coal dust and dirt.
- (2). Leland Ward – body burned a little on each hand, slight bruises on forehead and chin, no broken bones, death due to gas or shock.
- (3). Thomas Stevens – body burned, no bones broken, body charred from shoulders up.
- (4). Anthony De Santas [sic] – body burned all over in big blotches, lower jaw broken, and skull fractured.
- (5). Raymond Bailey – body burned from chest up and skull fractured at base. Apparently no bones broken.
- (6). Oscar Baird – body charred from shoulders up, no bones broken.
- (7). Stephen Davis – body not burned but putrefaction had set in; death came from shock or gas.

(31, at p. 21-22.)

Apparently no formal autopsy was conducted on any of the bodies, nor was the time of death fixed by the coroner for any of the dead miners.

Next, John Neish, the night boss, testified that he had been employed at the Monarch Mine about six months prior to January 20, 1936. He left the mine sometime between 2:30 and 3:30 a.m. that morning, traveling by locomotive with Tom Stevens, his replacement as night boss, who came to work around 12:30 a.m. that morning.⁴³ “He met Stevens at the fire walls and traveled with him on the locomotive along 2 North entry to the junction [with 13 and 14 West entries] and thence to the shaft bottom. Stevens apparently re-entered the mine thereafter. According to Neish, ventilation was good that night in the mine and he found no gas at the time he left the mine between 3 and 4 hours prior to the explosion. (19)(31, at p. 22) He also said “the violence of the explosion seemed to come from 2nd north entry.” (32 at p. 22)

Nick Del Pizzo testified he “was engaged in timbering and loading rock in the mechanical loading section of the mine into which the explosion did not penetrate. He went with Tom Stevens, the night boss, into 11 west entry with a locomotive to get timber about 20 minutes before the explosion. At the time of the explosion he was working with a Mr. Jenkins about half way along 11 and 12 west entry in the 2nd north section.” (31 at p. 23) According to the Camera’s report on the Inquest, Del Pizzo also said “the air seemed normal to him before the blast.” (19) He and Jenkins escaped up an air shaft ahead of the deadly after-damp rapidly circulating through the mine tunnels after the explosion. (31, at p. 23).

The next witness, Milton Hobbs, described variously as an “assistant foreman” and a “pump and pipe man” who “holds a foreman’s certificate,” testified he was outside the mine when it exploded. “As he stepped out of his house near the tippie, he saw a puff of smoke come out of the air shaft and saw the smoke flash out.” (31 at p. 23) Hobbs went down into the mine with the first rescue crew that entered following the blast. (19)(31, at p. 23)

Hobbs testified that he “had examined the main south section many times and found black damp⁴⁴ *but not explosive gas.*” (31 at p. 23) He had made similar findings at various other locations in the mine. “He occasionally found small quantities of methane when he opened the valves in the seals in 7 and 8 entry. He sometimes also found methane behind the stoppings which were about 65 feet off of 14 west entry in 9 and 10 south entries.” (*Id.*)

Hobbs ruled out the possibility that any explosive gas could have come from the 9 and 10 south entries “because the seals there were intact after the explosion.” However, according to the Federal Report, Hobbs stated that “explosive gas *might* have come from the 7 and 8 south entries where the seals were blown out by the explosion or from 3 and 4 south entries.” (31, at p. 24) The Camera reported Hobbs testifying that “a cave-in in old workings *may* have forced gas out.” (19) (All emphasis added.)

With respect to any safety steps taken by the mining company to reduce the danger of a coal dust explosion, the Federal Report records Hobbs only vaguely saying “he knew of some cleaning and sprinkling done in the mine from time to time; he used to sprinkle.” (31, at p. 24)

The testimony of other Monarch miners was more explicit about the presence of coal dust and the company’s lack of serious effort to abate the safety risk it presented. Lewis Rosser, a former Monarch

⁴³ Though the Monarch Mine did not operate on Sunday, January 19th, inspectors like Neish were on duty that day and “the usual inspections had been and were being made.” (31, at p. 14.)

⁴⁴ Blackdamp - A term generally applied to carbon dioxide. Strictly speaking, it is a mixture of carbon dioxide and nitrogen. It is also applied to an atmosphere depleted of oxygen, rather than having an excess of carbon dioxide. <http://www.coaleducation.org/glossary.htm>. Black-damp is also known as choke-damp or stythe, and is a mixture of nitrogen and oxygen in proportion varying from 5 to 20 % of carbon dioxide. It is not a poisonous gas except in proportions which would cause death by suffocation in a short time. http://www.therhondda.co.uk/gases/black_damp.html.

miner said, “the dust in the Monarch mine was pretty thick along the main haulage prior to November 22, 1935, especially if there were a bunch of mules in front.” (31, at p. 27)

William Harris, a miner who was working at the Monarch at the time of the explosion, stated, “there had been a man cleaning the mine road but that this man had worked at the shaft bottom for 10 days before the explosion, up to Tuesday or Wednesday when one place got so full of dust that he was called back to clean part of it out so the locomotive could go through.” It was Harris’ opinion that “the company should have kept 14 west entry and the main south entry freer from dust and that *the rock dust which the company had on the surface should have been distributed in the mine.*” (31, at p. 27-28)(Emphasis added.)

Harris worked at the Monarch Mine the Saturday night before the explosion and observed “rock dust near the fire wall” that evening, but “he didn’t know what it was going to be used for.” (*Id.* at p. 28)

John La Salle, a Monarch miner and the brother-in-law of Tony De Santis, testified that “there was plenty of dust on the haulage” ways. “The company,” he said, “did a little bit of cleaning but didn’t follow up systematically.” (*Id.*)⁴⁵

Deputy State Mine Inspector James W. Graham, Sr. “broke down and wept when, during his testimony, Deputy District Attorney James D. Lewis asked if he could give the cause of the catastrophe.” “‘I thought I could, but I can’t,’ Graham sobbed. He regained his composure quickly and did not elaborate on his statement.” (19)

However, the Federal Report summary of Graham’s inquest testimony provides much more detail:

[Graham] last examined the mine on November 20, 21, and 22, 1935. He reported certain parts of the mine as dry and dusty and that the air movement was sluggish in the south district and fair in the north district of the mine.

... In one exploration after the explosion he examined the 9 and 10 south and the 7 and 8 south entries and found gas (explosive) there. Gas was encountered 20 feet off of 14 west entry in the 7th south entry.

Subbituminous dust *can* explode if there is a fire or similar cause. He thinks that a low barometer may have something to do with this explosion. *He believes that if the roadway in 14 west entry had been moistened there would have been no extension of the explosion by the dust. He does not think that coal dust stirred up by mules could be ignited.*

...

Mr. Graham stated that Mr. Jenkins of the National Fuel Company had written him in response to his request stating that he was cleaning roadways as fast as men could work on them, but that he could not accept the recommendation of spraying or sprinkling. (*Id.* at p. 25-26)(Emphasis added.)

Several jurors contributed to the information provided at the inquest about the role of coal dust in the Monarch Mine:

⁴⁵ Henry Dhieux was 20 years old when he and his father, August, worked as miners for one week in the Monarch Mine. They quit about two weeks prior to the explosion because August said the mine contained too much coal dust and was dangerous. Henry Dhieux, personal interview, by William M. Cohen, 12 June 2006. Henry Dhieux, a lifelong resident of Louisville and a coal miner for 36 years, died on August 24, 2006, at the age of 91. “Obituary of Henry Dhieux,” Boulder Daily Camera 26 Aug. 2006: 9A.

... One stated that he loaded Monarch mine dust in a car and threw it on the mine dump and when it hit the fire in the dump it exploded and injured the man. A juror stated that he had followed mules in the Monarch mine with a locomotive and that the dust kicked up carried ahead of the locomotive.

A[nother] juror stated that northern Colorado dust will explode in a stove. (*Id.* at p. 26)

Other witnesses supported the theory that explosive methane gas from the old mine works was the source of the explosion. A.C. Ward, a mine foreman (and possibly the brother of Leland Ward), had been in the Monarch Mine from 3:30 p.m. until midnight on the Sunday, January 19th. Shortly after the explosion, he tried to enter the mine through the air shaft, but he was overcome by after-damp just “12 steps” down the stairway. Ward agreed with other witnesses that the “7 and 8 and 9 and 10 south entries were the only places where methane had been found in the mine.” (*Id.* at 24)

It was Ward’s belief that the explosion “was caused by a fall in the old works forcing out explosive gas to be ignited by a trolley locomotive.” (*Id.*) According to the Camera, Milton Hobbs supported this theory at the Inquest. (19) State Mine Inspector Allen concurred in part, stating that he believed the explosion was “due to explosive gas and *perhaps dust* and that the gas came from abandoned workings.” (31, at p. 27)(Emphasis added.)⁴⁶

Other interested parties also gave their opinion on the cause of the explosion. James Lord and Jack Green, of Lafayette, district representatives of the United Mine Workers, inspected the mine with SMI Allen on Saturday, January 25th, ostensibly “to determine if everything possible had been done to save the men after the explosion.” Allen reported that they were “well satisfied” with what had been done up to that point. (35) Lord testified at the Inquest that he had examined “a part” of the mine after the explosion and that “he thinks that a gas explosion occurred followed possibly by a dust explosion.” (31, at p. 27)

Finally, Robert Dalrymple, an inspector with Employers Mutual Insurance Company, National Fuel Company’s insurer, testified that he made three examinations of the Monarch Mine for the Insurer, the last one in October 1935. “He only found explosive gas once in a very small amount.” Nevertheless, it was his opinion that “a gas explosion occurred but he has no knowledge of where the gas might have come from.” (*Id.*)

After hearing this conflicting testimony the Coroner’s Jury issued its Verdict⁴⁷ around 7:00 p.m. that Thursday evening, January 30th. (41) The jury made two crucial findings of fact but failed to make a third finding, which created far-reaching consequences.

First, it found that “John Novinger, Leland [sic] Ward, Thomas Stevens, Anthony De Santis, Raymond Bailey, Oscar Baird, and Stephen Davis . . . came to their deaths [in the Monarch Mine on

⁴⁶ According to the Federal Report, “The State Coal Mine Inspector concluded in his monthly report of fatalities [presumably issued in February 1936] that the eight men ‘came to their death by being caught in a gas explosion with *fine dust playing a part*.’” (31 at p. 19)(Emphasis added.)(1, at p. 44)

⁴⁷ A handwritten, presumably verbatim version of this Verdict was located at page 325 of a bound volume at the Boulder County Coroner’s Office titled “Records of the Coroner of Boulder County, Colorado Beginning with the first official act of Seth D. Bowker M.D. in the case of Daniel Webb Dec. 12, 1877.” It appears to have been written by then Coroner George W. Howe, including the names of the jurors as potential signatories to the Verdict. Presumably the jurors adopted the Coroner’s version and signed a formal verdict incorporating its terms. However, no other file or record of this inquisition or of the official verdict signed by the jurors has yet been located although Colorado statutes require the Coroner to deliver the inquisition record to the District Court. See C.R.S. §§ 30-10-611, 30-10-617 and predecessor statutes.

January 20, 1936] as a result of an explosion, *the origin of which, the jury cannot determine.*” (Coroner’s Jury Verdict.) (Emphasis added.)⁴⁸

Second, the jury found:

... that dust was allowed to accumulate along the motor track, which was a hazard, that the operators of said mine had been notified by the State Mine Inspector to remove said hazard prior to the date of said explosion, and that operators were *negligent* in failing to remove said dust hazard and complying with said order. (Coroner’s Jury Verdict)(Emphasis added.)

What the jurors failed to do was to find any connection between the National Fuel Co.’s negligent maintenance of the hazardous coal dust condition in the mine and the explosion which killed the eight miners. In effect, because the jury did not determine whether the hazardous coal dust condition or escaping methane gas caused or contributed to the explosion, the Company was not found to be responsible for the explosion that took the miners’ lives.

Some next-day newspaper headlines about the verdict were misleading. The Rocky Mountain News announced: “Mine Owners Are Blamed in Death of Eight.” (6) The Denver Post similarly proclaimed: “Mine Owners Are Charged in Fatal Explosion.” (42) The Post story did point out that despite the jury’s finding of operator negligence in failing to remove the dust hazard, the jury had “failed to determine the cause of the explosion.” (42) The Rocky Mountain News story also mentioned that the jury did say that the “eight victims of the tragedy died as a result of an explosion of undetermined origin.” (6)

The Camera’s front page headline on January 31, 1936, correctly summarized the verdict: “Mine Company Held Negligent In Dust Hazard.” Its sub-headline recognized the absence of a finding of responsibility: “Coroner’s Jury, However, Does Not Blame Dust for Explosion That Killed Eight.” (41) The Camera story also surmised the main consequence of the jury’s conclusions, namely, that “it removed from the mining company any direct blame for the catastrophe.” Indeed, any criminal liability that the Company faced ended with the announcement by the Coroner that “he had completed his official record” and that a second inquest would not be needed even if Jaramillo’s body was recovered. Deputy District Attorney Lewis also stated publicly that “the case was closed as far as his office [was] concerned.” (41)

The Company immediately seized upon the verdict to absolve itself from any liability for the explosion. Its Vice President T.E. Jenkins declared that he had been in the mine and “saw no evidence showing there was a hazard.” (42) Also, according to Kenneth Harbour, a University of Colorado journalism student who covered the inquest for the Camera, the State Mine Inspector went out of his way to praise and defend the National Fuel Co.’s innocence in this disaster:

State Mine Inspector Tom Allen said *he did not know* whether the company complied with the recommendations of his deputy, Jas. W. Graham Sr., in November regarding dust and bad air conditions. But Allen said the company had done “every practical thing to counteract gas,” said he received the best of cooperation from the company, and *characterized the terrible disaster as “an unforeseen condition, attaching no blame to anyone, and unpreventable.”* (41)(Emphasis added.)

3. The Federal Investigation.

Unfortunately, recently discovered documents reveal there was much more potential evidence of the company’s responsibility for this explosion and for the miners’ deaths. By holding the Inquest before

⁴⁸ The Jury also found that “Joe Jaramillo was in the mine at the time and that his body has not been discovered but will be removed as soon as found.”

the federal investigation and report were complete and by closing the criminal investigation following the Coroner's Jury's inconclusive verdict, full public illumination of the conditions which led to the explosion in the Monarch Mine never took place.

Even preliminary reports from federal officials at the scene of the explosion pointed towards the possible involvement of both methane gas and coal dust in the explosion. E.H. Denny was the apparent leader of the federal team from the Bureau of Mines Denver Office investigating the Monarch Mine explosion and assisting in the rescue/recovery work. In a January 24, 1936 telegram to J.J. Forbes, the Chief Engineer at the U.S. Bureau of Mines in Pittsburgh, Denny stated that "apparently *both gas and dust involved in the explosion*. Preliminary report follows."

Denny's Preliminary Report, file stamped as received in Pittsburgh on January 29, 1936, was written "for Bureau of Mines information only" sometime between January 25th and January 29th. Among the facts about the Monarch Mine noted in this report were the following:

- F. 1. [The mine was] apparently rated as gassy by the State ...
- 3. Coal dust generally considered by operators not explosive, *but recent tests by Bureau of Mines state that dust was explosive.*
Much dry dust in mine after explosion.
* * *
- 7. *No rock dusting. Note: Several tons recently purchased to start dusting.*
- 8. *No sprinkling of coal employed.* (31, prel. rpt. at p. 2)⁴⁹

This information about the explosiveness of subbituminous coal dust, though available, appears not to have been presented to the Coroner's Jury at the January 30th Inquest.

The Federal Report, presumably also authored by Denny, was filed in Pittsburgh on June 8, 1936. There is no evidence that it was released to the public until recently obtained by this author and another researcher. The federal investigation's findings and conclusions concerning methane gas and coal dust are significant.

With respect to methane gas, eight samples were collected following the explosion and analyzed in the Bureau of Mine's Pittsburgh laboratory. The report stressed that "these samples were collected under the abnormal ventilation conditions prevailing after the explosion." (31, at p. 8) All of the samples "contained methane; the percentage found in moving air currents was small considering the generally deranged ventilation" caused by the explosion. Nevertheless, two samples, taken at the 8th South entry 20 feet off the 14 West entry, containing 8.3% and 11.1% methane, respectively, indicated "in all probability that a very considerable body of methane existed behind the 8 south entry seals before the explosion," in a potentially explosive mixture "if mixed with air and subjected to an ignition source." (*Id.* at p. 9-10) Despite these findings, and considerable speculation in the Report about possible sources of leaking methane into the main haulages areas in the presence of possible sources of ignition (*Id.* at p. 16-18), the Federal Report concluded unequivocally that it was "evident that an explosion of considerable and wide-spread violence took place and *it is inconceivable that an accumulation of explosive gas in sufficient quantity could have occurred to cause the wide spread damage found.*" (*Id.* at p. 16)

The evidence for coal dust being the main cause of the explosion was much clearer. Federal investigators W.H. Forbes and J. H. Bird collected nine coal dust samples following the explosion, which were also analyzed at the federal lab in Pittsburgh. The results confirmed that "all the dust samples readily ignited" and that the amount of moisture and ash content of the samples was well below the total

⁴⁹ Point I of this Preliminary Report stated: "There is an active mine fire on which sealing work has been conducted for six months. Examination of fire seals indicates that this fire played no part in the explosion unless through caving to an upper seam not readily accessible near fire location." (*Id.*)

incombustible content required to prevent dust inflammation. Also, the ignition temperature of the Monarch Mine coal dust samples was “much less than those present in open flames, gas explosion, burning or detonation of explosives and electric arc.” (*Id.* at p. 11-14.)

The Senior Physicist of the Bureau in Pittsburgh, Mr. Greenwald, commenting on his test of these samples, stated unequivocally:

Whatever may be said concerning the strict quantitative value of the laboratory tests, *there can be no doubt of the qualitative fact that these dusts are decidedly dangerous and that mines containing them should be rock-dusted* at least to the minimum set forth in the standard specifications for rock-dusting. (*Id.*, at p. 13)(Emphasis added.)

As previously noted, the Federal Report also confirmed that “the mine was not rock-dusted but the National Fuel Company before the explosion had secured a number of tons of rock dust to be used in dusting haulage roads.” (*Id.* at p. 14)

The Report emphasized that the “large amount of territory caved by the explosion and the consequent impracticability of a complete and detailed examination of the mine workings and particularly of open abandoned workings makes it impossible to definitely fix the origin point of the explosion or to state the exact cause. Still, it was the “opinion of the writer” of the Report that “the wide distribution of the explosion forces and the dense clouds of smoke and dust [in]volved indicate that *coal dust was ignited and ... played the major part in the force developed.* (*Id.* at p. 16)(Emphasis added.)

The federal official’s opinion was underscored by the Recommendations he made “as a result of this explosion.” The first three pertained to the dangers of accumulations of coal dust in Northern Colorado coal mines:

1. *Consider subbituminous coal dust as a potential explosion hazard.* Keep roadways clean as practicable of coal dust and coal spillage. Particularly keep ribs and timbers free of fine coal dust. It is believed that such fine dust could be washed down from ribs and timbers by the judicious use of hose and water without wetting the bottom to such an extent as to cause heaving.

2. *Combat the formation of coal dust through spillage* by maintenance of track in good shape, use of tight cars, and limitation of car topping.

3. After roadways and ribs and timbers have been cleaned of dust so far as practicable *begin rock dusting of ribs, timbering, and roadways particularly along trolley locomotive haulageways, and adjacent sealed areas. Eventually extend such dusting to all open parts of the mine that are in coal and not naturally wet.* (*Id.* at 19)(Emphasis added.)

The Sixth Recommendation did recognize that:

The use of trolley locomotives in entries adjoining which there are sealed areas which contain or may contain explosive gas is dangerous practice particularly unless such entries are ventilated by a large volume of fresh air which is not subject to interruption by opening of doors or shutting down of fan without warning. Permissible type storage battery locomotives are the safest means of electrical haulage under such circumstances. (*Id.* at 20)⁵⁰

Since the Coroner’s Jury had already found the mining company negligent for maintaining and failing to correct the hazardous coal dust condition in the Monarch Mine despite the November 1935

⁵⁰ Recommendations 9 and 10 also pertained to equipment and methods of detecting and testing for the presence of explosive or poisonous gases. (*Id.*)

notice to do so by the State Mine Inspector, had the Federal Report been available to the Jury they would have had a substantial basis for finding that the National Fuel Company was criminally responsible for the deaths of one or more of the eight miners killed in the explosion. It might also have substantially increased the exposure of the Company and its insurer to civil damages for wrongful death of the miners and possibly even punitive damages for gross negligence.

4. The Mysterious “Medill Investigation.”

A “Confidential” letter dated February 3, 1936, just three days after the Coroner’s Jury Verdict, from E. H. Denny, the primary federal investigator on the scene of the explosion and author of the eventually submitted Federal Report, to J.J. Forbes, an official at the Bureau of Mines in Pittsburgh, reveals just how concerned State and federal officials were about the potential responsibility various parties faced, if a more complete inquiry into the causes and responsibility for the Monarch Mine explosion were conducted and made public.⁵¹ The letter relates the substance of a “long talk” that Denny and co-worker W.H. Forbes had that morning with SMI Thomas Allen “regarding the recent Monarch mine explosion and measures to be taken to avoid a repetition of the affair.” After noting that the search for Jaramillo’s body was ongoing, Denny then discussed the Coroner’s Jury Verdict and its aftermath:

The coroner’s jury last Thursday held the National Fuel Company officials as negligent in allowing accumulations of dangerous quantities of dust in the Monarch mine despite the last report of State Mine Inspector Graham which called attention to dry and dusty conditions. *I am advised that if the inquiry had been carried further that they would have found that Mr. Graham had made the same report and recommendation regarding dust in the Monarch mine for the past six years.* I also understand that there is a little talk of attempting *Grand Jury indictment against one or more National Fuel Company officials*, but that probably nothing further in this will materialize. I also understand that the Employers’ Mutual Insurance Company inspector *practically gave the Monarch mine a clean bill insofar as safety is concerned following an inspection made a few days before the explosion.* (31, Confidential Memo at p. 1)(Emphasis added.)

However, the prior 6 years of coal dust safety violations were not made public and no further criminal proceedings were initiated. As a result, no one faced indictment, and the insurance company paid approximately \$4,000 to the widows of each miner at the rate of \$50 per month from life insurance that National Fuel Co. carried on each of its miners. The question is why were these the only consequences of what appears to be an egregious, persistent disregard for the safety and lives of Northern Colorado miners? The answer may lie in the main purpose of Allen’s February 3, 1936 meeting with the federal mine officials.

According to Denny’s Confidential Memo, Allen’s “particular purpose” was to solicit the federal officials’ views “as to the calling in of some outside man to make a detailed inspection and recommendations concerning better safety practice in *all* northern Colorado coal mines.” Allen suggested an “outside man” lead this investigation “because whoever made the *drastic report needed on the northern field* would be subject [to] a lot of criticism.” (*Id.* at p. 1-2)(Emphasis added.)

It seems obvious that these federal and state mine safety officials knew that there was a serious safety problem endemic to the entire Northern Colorado coal mine field related in substantial part to hazardous coal dust conditions that had not been properly addressed by the Monarch Mine investigation and inquest. Indeed “Allen’s slant on the matter,” according to Denny’s Confidential Memo, “was that such report would give his inspectors something definite to work toward and that he felt that the viewpoint of some outsider would receive more attention than any report which his own Inspection

⁵¹ This letter was stamped received at the Pittsburgh office on February 6, 1936.

Department might make, particularly as several of his inspectors have spent much time in the northern field.” (*Id.* at p. 2)

Denny suggested Robert M. Medill of Denver, the former chief mine inspector for the State of Illinois, be appointed as the outside man, and offered to assign William Forbes of the Bureau of Mines Denver office to assist him in collecting dust and air samples. Allen said he needed approval of Colorado Governor Ed Johnson to proceed with this plan. (*Id.*)

Allen sought Governor Johnson’s permission to conduct this “special investigation of the coal mines in Northern Colorado” in a letter dated February 5, 1936. He represented that this investigation would “include details of all dangerous conditions in these mines.” The reason for the investigation was clearly articulated to the Governor by Allen:

The recent disaster at the Monarch mine where eight men lost their lives is the cause for such investigation in an effort to prevent any recurrence of such a disaster in mines working under similar conditions and using similar methods of workings and practices. (Letter from Thomas Allen to Hon. Ed. C. Johnson, 5 Feb. 1936, Colorado State Archives)(Emphasis added.)

Such a sweeping investigation would hardly seem necessary if ignition of methane gas caused the accident and, as Allen had been quoted in the Camera a few weeks earlier, National Fuel Co. had done ““every practical thing to counteract gas”” in the Monarch Mine and this “terrible disaster” was ““an unforeseen condition, attaching no blame to anyone, and unpreventable.”” (41)

Gov. Johnson approved Allen’s request and on February 15th Allen announced the appointment of Medill to conduct the investigation, assisted by Forbes, “as a result of the explosion which claimed eight lives Jan. 20 in the Monarch mine near Louisville.” It was anticipated it would take approximately four months to complete the “examination of more than 60 mines.” Dust and gas samples from each mine were to be sent to the Federal Bureau of Mines laboratories in Pittsburgh for analysis. The two investigators were expected to study “all safety devices, dangerous practices, and other factors of importance in operation of a mine,” and make a “complete report on mine conditions in the northern lignite fields to the governor and Allen.”⁵² The investigation was supposed to begin on Monday, February 17, 1936. (43)(44)⁵³

On February 28, 1936, Allen requested permission to “appoint Veda Burford as ‘First Aid & Safety, Director and Supervisor’ for the Coal Mine Inspection Department.” The reason for this appointment was spelled out by Allen:

This work is going to be pushed in order that the number of accidents in our coal mines can be reduced to a minimum. A number of meetings have been held under the supervision of this department between the miners and coal mine operators and it is necessary that this

⁵² D. Harrington, Chief of the Health and Safety Branch at the Bureau of Mines in Pittsburgh replied to Denny’s confidential letter to Forbes. On February 18, 1936, three days after the Medill Investigation, including federal participation, was announced publicly, Harrington wrote:

My first impression was rather opposed to our entering upon any such study but it seems to me now that, while we should not do anything to try to push ourselves into a job of this description, on the other hand if it is offered to us we should accept the responsibility and make a report which, if necessary, could be published. (Letter from D. Harrington to E.H. Denny, dated Feb. 18, 1936, Monarch Mine Explosion File, U.S. Mine Safety & Health Administration (MSHA))

The MSHA has not been able to produce any such report.

⁵³ Two newspaper accounts reporting on the announcement of this investigation, apparently quoting verbatim from an SMI press release, stated that the “cause of the explosion in the Monarch Mine has not been determined, though it is believed it resulted from either dust or gas generated by a fall of coal in abandoned areas in the extensive workings.” (43)(44)

appointment be made in order that the work can be properly carried out. (Letter from Thomas Allen to State Civil Service Commission, 28 Feb. 1936, Colorado State Archives.)

The clear implication was that Allen was beefing up safety inspections and enforcement in coal mines by his department in the wake of the Monarch Mine disaster and needed the extra personnel to assist in that endeavor. Gov. Johnson approved the appointment and Burford began work sometime in 1936. (*Id.*)

However, no further record of the “Medill Investigation” has been located. Circumstantial evidence indicates that it either was never conducted, not completed, or that its findings were suppressed. The Annual Report of Colorado State Inspector of Coal Mines covering the calendar year 1936 was forwarded to then-Colorado Governor Teller Ammons on April 1, 1937, (1, cover letter) more than a year after Medill and Forbes were assigned to the alleged investigation. Not one word in that entire, more than 40-page Report refers to any such investigation, its findings or recommendations, or any special safety directives or actions that were or were expected to be taken as a consequence of the Medill Investigation.⁵⁴

5. The State Mine Inspector’s Conclusions on Causation of the Explosion.

The 1936 SMI Report does include a 3-page “Monarch No. 2 Mine, Mine Explosion Report,” and diagram. With respect to the cause of the blast, the Report concludes:

From all the evidence available, it would appear that the explosion originated on the 13th and 14th West near the 7th and 8th South. For some reason there must have been a disarrangement of the ventilation in this area, and explosive gas which was known to exist in the 7th and 8th South, leaked out on to the main haulage road where it was ignited by a spark from the trolley wire or some electric flash from the motor trip. Dry dust on the main haulage road undoubtedly helped to propagate the explosion through the damaged area. The inner workings, which were a little moist, were undamaged excepting for the concussion caused by expansion in the explosion area. (1, at p. 43, and Diagram)(Emphasis added.)

Nowhere in the 1936 Report is there any mention of similar conditions of methane gas or explosive coal dust in any other mines in the Northern Colorado Coal Field.⁵⁵ The Coal Mine Inspection Department’s “Educational Program” was highlighted with reference to “a great deal of activity in educational work being conducted among *employees* in and around coal mines.” Also noted was that “Operators and miners are responding in the drive for greater safety in our mines,” but the details of that drive were not specified. Veda Burford’s role seemed to be focused on training 96 Northern Colorado women in first aid and organizing women into “assistance rescue groups” at the scene of accidents. (1, at p. 7-8)(Emphasis added.) The Report is silent on any directions to coal mine operators in order to reduce the danger to miners from methane gas or coal dust explosions.

Such an omission is surprising considering the fact that the Monarch Mine explosion caused the most mine deaths in the Northern Colorado coal mine field up to that point and occurred only a few minutes before over 100 miners would likely have suffered the same fate as the eight that were killed had the day shift already entered the mine.

⁵⁴ The SMI’s Annual Report for calendar year 1935, transmitted to Gov. Johnson on May 7, 1936, also makes no reference to the instigation of the Medill Investigation or to any relevant special safety notices. (45) Similarly, the SMI’s 1937 Annual Report (46) and all subsequent Annual Reports are silent on the results of any such investigation.

⁵⁵ The 1936 Report statistical summary of the work done by the SMI’s field force included 947 inspections of 430 mines statewide. (1, at p. 8) However, no special safety conditions at any of those mines were indicated in the Report.

The SMI's unsupported conclusion in the 1936 Annual Report -- that the Monarch Mine explosion was caused by ignition of explosive gas from an uncertain source by a spark of uncertain origin -- was based almost totally on speculation.⁵⁶ It ignored testimony at the inquest that Stephen Davis, the fire boss, armed with a methane gas detecting safety lamp, had entered the mine at 3:30 a.m. and was nearing the end of his 50-point inspection for gas without having reported any such gas being present. It also ignored the conclusions of the Federal Report, undoubtedly known and available to Allen by the April 1, 1937 date he submitted his Report to the Governor. The Federal Report confirmed by laboratory testing that the subbituminous coal dust, allowed to accumulate in dangerous amounts in the Monarch Mine despite repeated warnings from his staff, was readily ignitable, and, in E.H. Denny's opinion, "was ignited" and "played the major part in the force developed." And it made no mention of the testimony of Allen's own Deputy, James W. Graham, at the inquest that "subbituminous dust can explode if there is a fire or similar cause." Finally, even assuming that the SMI and Denny ultimately concurred that the explosion was caused by "ignition of methane from some seals by an arc from the trolley locomotive," as Harrington's July 11, 1936 letter suggests, Allen's report failed to address the implications his own finding that "*dry dust on the main haulage road undoubtedly helped to propagate the explosion through the damaged area*" had on the cause of death of the 8 miners killed.

The implications of Allen's omissions are profound. If indeed this explosion was caused by ignition of coal dust, then the Coroner's Jury's finding that National Fuel Co. was negligent in failing to comply with the SMI's prior order to remove this hazard would make the Company responsible for the deaths of all eight miners. It would have been reasonable for the jury to conclude that "but for" the presence of explosive coal dust in the mine and the absence of rock dust and watering of the haulageways, there would have been no explosion. All eight miners would have finished their shift shortly thereafter and left the mine without incident.

Furthermore, even if ignition of leaking gas caused or contributed to the explosion, the SMI recognized that "dry dust on the main haulage road *undoubtedly* helped to propagate the explosion through the damaged area." Also, Graham testified at the Coroner's inquest that "if the roadway in 14 west entry," the area identified by the SMI as in the vicinity of the source of the explosion, "had been moistened there would have been no extension of the explosion by the dust." Hence, dusting, which the Company failed to do, or watering, which it refused to do, in all likelihood would have substantially reduced the force of the explosion. In that case, one or more of the miners in the "area of violence" identified by the SMI is the Explosion Area diagram, - Novinger, Ward, Stephens, Bailey, Baird, De Santis, and Jaramillo -- might have survived a greatly reduced blast.

⁵⁶ From recently obtained internal documents of the U.S. Bureau of Mines, it appears that E.H. Denny may have ultimately concurred in SMI Allen's speculative conclusions. A letter dated July 11, 1936 (file stamped at the Bureau on July 13, 1936), from D. Harrington, Chief of the Bureau's Health and Safety Branch (and presumably Denny's supervisor) acknowledges receipt of Denny's report on the Monarch Mine explosion of June 6. Harrington then states:

In reading the report, I am just a little "at sea" as to your personal conclusions regarding the origin of the explosion, including the place as well as the method of ignition. I would like to have you inform me what in your opinion was the probable cause, irrespective of whether that opinion is in accord with the prevailing belief of others. (Letter from D. Harrington to E.H. Denny, dated July 11, 1936, Monarch Mine Explosion File, (MSHA).

In a subsequent letter dated July 20, 1936 (filed stamped July 21, 1936), Harrington acknowledges receipt of another communication from Denny dated July 14, 1936. Harrington then notes that "*you [Denny] are of the opinion that the explosion probably was caused by ignition of methane from some seals by an arc from the trolley locomotive.*" Harrington concludes: "It strikes me that, from the information which I obtained both from you and out at the Monarch mine early in the year, the solution given by you is about as close as any which can be ascertained." Letter from D. Harrington to E.H. Denny, dated July 20, 1936, Monarch Mine Explosion File, MSHA.(Emphasis added.) This Author's several requests to obtain Denny's July 14, 1936 communication from MSHA have so far been unsuccessful.

Finally, it is virtually certain that had the National Fuel Co. complied with the SMI's order to rock dust and water this mine, Stephen Davis, who was uninjured by the explosion, would not have been killed by the deadly wave of carbon monoxide gas that flowed through the mine thereafter. Rock dust and moisture would likely have stopped the spread of the deadly after damp – one of its primary purposes - long before it reached Davis several thousand feet away from the point of origin of the initial explosion and uninjured by that blast.

The absence of any recommendation aimed at preventing future similar explosions was also inconsistent with past and future practices of the State Mine Inspector in his annual reports. For example, the 1935 Report contained a detailed report on the Bear Canon No. 6 Mine Explosion, which occurred on July 9, 1935, in Las Animas County in Southern Colorado, in which four miners were killed.⁵⁷ That report found that stoppage of a ventilation fan interrupted circulation of the air current, “thus increasing the explosive gas percentage in the mine workings.” The mine was also found to be “gaseous, generally dry, but rock dusting had been done on the main lines before the explosion, but it was not carried up to the working faces. No sprinkling or watering was practiced.” The SMI in the 1935 Annual Report specifically “Recommended,” among other safety steps: “(1) That the mine be thoroughly dusted.” (45, at p. 43)

The Bear Canon No. 6 Mine produced a “bituminous coal of a coking quality.” (*Id.*) However, it is clear from the coal dust hazard notices repeatedly given the operator of the subbituminous coal-yielding Monarch Mine No. 2, that the SMI believed, and testing and experience had demonstrated prior to issuance of the 1936 Report, that subbituminous coal dust was explosive, would increase the size and impact of an explosion, and would propagate the wave of deadly carbon monoxide gas that coal mine explosions create widely throughout a mine unless deterred by moisture or rock dust. Still, in his 1936 Annual Report, the SMI neglected to reiterate the 1935 Bear Canon-related recommendation or to make any other recommendation for safety action arising from the Monarch Mine explosion.

The 1937 SMI Annual Report contained two specific recommendations for safety practices (unrelated to methane gas or coal dust issues) following the deaths of individual miners in separate incidents at different mines. (46, at p. 43-50) However, that Report, though covering the calendar year 1937, also contained no reference to the results of the Medill/Forbes investigation or any recommendations that might have flowed from that alleged investigation. (46)

6. Subsequent Events

On January 27, 1942, a methane gas explosion at the Wadge Mine at Mt. Harris, Colorado (22 miles east of Craig) killed 34 coal miners. Four escaped. However, “due to circumstances beyond control,” the SMI did not file the statutorily required annual reports to the Governor for 1941 and 1942, but in 1944, submitted a temporary (and admittedly incomplete) combined report covering the World War II years 1941, 1942, and 1943. It is unclear what was contained in the temporary 1944 report and whether it was made public. On April 16, 1956, SMI Allen transmitted a revised, permanent report for those years. His two paragraph report on the Wadge Explosion states that the Coroner's Jury found that the cause of the explosion was gas ““of undetermined cause or origin”” and it was the jurors' opinion that gas found in the room where the explosion occurred ““should have been cleared before the men were allowed in this entry””. (47, at p. 1)

⁵⁷ The Bear Canon No. 6 Mine explosion was investigated by Allen and his Deputy W.M. Laurie, as well as by the U.S. Bureau of Mines Denver team of E.H. Denny and Howard Bird. (45, at p. 42) All of these men also participated in the rescue and recovery work at, and the investigation into the causes of, the Monarch Mine explosion approximately six months later.

However, the 1956-issued Report revealed that in 1942, six years after the Monarch Mine explosion, and following the Wadge explosion, Allen had issued various “Directives by Chief Inspector” comprising 14 “Recommendations for Safety.”⁵⁸ The first recommendation listed in the 1944/1956 Report was: “Rock dust to be applied to all mines unless sloppily wet.” (47, at p. 1)(Emphasis in the original.)

On May 1, 1958, the SMI submitted his department’s “combined and revised” Annual Reports for 1944, 1945, and 1946, as permanent records for placement in public libraries and the State Archives. (48)⁵⁹ This Report revealed that on August 2, 1944, Chief Inspector Allen issued a directive ordering “compulsory rock dusting in all mines not sloppily wet.” (Emphasis in the original.) The deadline for compliance was specified as November 5, 1944. (48, at p.2). This directive was followed with an order issued April 23, 1948, stating that “operations will be stopped at once, in any district where there is insufficient rock dusting.” (49, at p. 3)

The combined permanent report for 1944-46 contained this cogent observation:

The importance of rock dusting was proven in a large mine during 1944, where the ignition of coal dust in a very small area might have resulted in a major catastrophe. The explosion died (or ended) 100 feet from the point of ignition, to which point rock dust had been heavily applied. Several hundred men were employed at the time. (48, at p. 1)⁶⁰

We can only wonder who would have survived the Monarch Mine explosion had these previously known safety requirements and specific Government orders been issued at that time and been complied with or enforced.

VI. The Miners and Their Families

1. John Kester Novinger

John Kester Novinger was born in Kirksville, Adair County, Missouri, on January 9, 1898. He was 11 days past his 38th birthday when he died in the Monarch Mine explosion. His father, William Novinger, was born around 1832 in Pennsylvania. He was 66, and apparently retired when John Kester was born. John Kester’s mother, Laura Belle McKee, was born in Curlsville, Pennsylvania, around 1869. She was 29, when John Kester was born. (50)(51) Where the couple met and when they moved to Kirksville is unknown.

Kirksville, in northeast Missouri, lies less than ten miles southeast of “Novinger,” Missouri. Although the Novinger area has a rich coal mining history (see, <http://www.rootsweb.com/%7Emoadair/>), there is no evidence that either John Kester or his father worked in the mines there.⁶¹

John Kester grew up in Kirksville, attended schools there and was “employed by local firms for several years.” (54) On June 10, 1919, at age 21, Kester married his first wife, Wilda Irene Howland, 19,

⁵⁸ Four additional safety recommendations were issued by the SMI in 1943. (47, at p. 2)

⁵⁹ The 1958 Report indicates that mimeographed reports for years 1944-46 may have been submitted to the Governor “in the interest of economy during World War II,” but it is unclear when they were made public.

⁶⁰ The 1947-49/1960 combined and revised SMI report notes these additional SMI directives aimed at preventing ignition hazards:

8-1-47 – Add to Mechanical Loading Rules. “The face of any place must be examined for explosive gas at frequent intervals of not less than 30 minutes during the operation of any electrically-driven machine.”

4-23-48 – Operations will be stopped at once, where insufficient air is circulating at the faces. (49, at p. 3-4.)

⁶¹ The 1910 U.S. Federal Census shows that on April 18, 1910, William, age 78, Laura Belle, age 41, and John Kester Novinger, age 12 were living on E. Jefferson in Kirksville. No one in the household was employed.(51)

who was originally from Iowa. By 1920, “Kester” (the name he apparently preferred) at age 21 was still living in Kirksville and working as a baggage man for a railroad. (52)(58) They apparently divorced some time before 1930, because by then he was married to his second wife, Pola B. Bradford, and was employed as a farmer, while still living in Kirksville. Kester and Pola were both 32 in 1930.⁶² (53)

According to the Kirksville Daily Express, some time after 1930 Kester and Pola moved to Des Moines, Iowa, but by 1932 they had moved to Colorado, presumably to be near his mother, Laura Belle, who was living in Denver at 1919 Grant Street, and closer to Pola’s family in Weld County. On October 12, 1935, Kester started his first job as a miner at the Monarch Mine. He and his family were living in Broomfield at 2448 Pine, when he was killed in the mine explosion with a little more than three months of mining experience. (1, at p. 44)(5)(17)(50)(54)

Novinger’s funeral was held at the Howe Mortuary in Boulder, jointly with that of his cousin, Leland Ward, at 2:00 p.m., on Friday, January 24, 1936.⁶³ “The mortuary was filled with friends of Mr. Ward and Mr. Novinger and their families.” The attendees, including Novinger’s wife, mother, and infant daughter, heard Rev. Murry B. Beattie, University pastor of the Methodist Church, intone that “all Colorado grieves over the accident at the Monarch mine and the hearts of citizens beat in sympathy with the families of those killed.” (17)(18)

Novinger and Ward were buried in adjacent graves in Green Mountain Cemetery in Boulder. Pola Novinger apparently purchased the burial plot, large enough for four graves, at the time of the funeral for \$100, and received a deed to this plot on July 31, 1936, approximately six months later. (56) Although Pola had Kester buried in a cement burial vault, no headstone or other marker was ever erected on his grave. Only a large tree stands on the grave where a headstone would ordinarily be placed. (50)(56)(57)

Just a little over nine months before Kester’s untimely death, on April 15, 1935, Kester and Pola adopted a daughter, whom they re-named Sarah Belle Novinger.⁶⁴ Nicknamed and known thereafter as “Sally,” this child was 18 months old when her adopted father was killed in the Monarch Mine explosion. (55)

Sally recalls living in Boulder with her mother and her grandmother, Sarah Emily Bradford, after her father died. By the time Sally was around five years old, she, her mother and her grandmother Sarah Bradford moved to Long Beach, California. According to Sally, she attended eleven grades of school in

⁶² Pola Blanche Bradford was born on January 8, 1898. http://aqua.dev.uga.edu/~lebo/novinger-oth_geno.html. Her parents, Charles Elmer Bradford and Sarah Emily (née Simmons) Bradford, lived in Eaton, Weld County, Colorado according to the 1920 Census, but Pola, then 22, was not listed as living with them. (Bradford, Charles, 1920 U.S. Census, Eaton, Weld County, Colo., <http://0-persi.heritagequestonline.com.nell.boulder.lib.co.us/hqoweb/library/do/census/results/image?surname=bradford&givenname=charles&series=14&state=37&hitcount=4&p=1&urn=urn%3Aproquest%3AUS%3Bcensus%3B13967713%3B75839921%3B14%3B37&searchtype=1&offset=1>, 30 Aug. 2006. By 1930, Charles and Sarah Bradford were living on Water Street (now Canyon Boulevard) in Boulder. Bradford, Chas., 1930 U.S. Census, Boulder, Colo., _____.

⁶³ Boulder County Coroner George W. Howe was a co-owner with his father and brother of the Howe Mortuary in Boulder. Howe, as Coroner, is listed as the source of the information on the Novinger Record of Funeral pertaining to “Cause of Death,” which was stated as “accidental-Mine Explosion.” “Burns and bruises” were listed as “Contributory Causes.” This form was dated “Jan. 20, 1936”, the date of the explosion and 10 days prior to the Coroner’s Inquest called to determine the cause of death of the miners killed in the Monarch Mine explosion.

⁶⁴ Sarah (“Sally”) Belle Novinger was born on June 27, 1934, in Denver, Colorado. Her birth name was Lorraine Joyce Miller. Her birth mother was Louise Grace Miller. Her adoption by the Novingers was completed on April 15, 1935, in Boulder. (55) The Novingers apparently named their new daughter for her two grandmothers, Laura Belle Novinger and Sarah Emily Bradford.

Long Beach. Sally was in high school when she met her boyfriend and soon-to-be-husband, Walter Cundiff. Cundiff was at that time in the Navy stationed in Long Beach. (59)

Although the sequence of events in this period is unclear, Pola, whose last job was as a bar maid at the “Lucky Inn” in Long Beach, died on January 28, 1950, at the age of 52 of cancer. She never remarried. (http://aqua.dev.uga.edu/~lebo/novinger-oth_gen.html). At some point after Pola’s death, Sally and Walter went to Yuma, Arizona to get married. On the day of her marriage, her grandmother Sarah told Sally that she had been adopted by the Novingers. Sally recalls being extremely upset because she hadn’t been told about the adoption sooner. (59)

Despite these traumatic early events, the Cundiffs had a long and fruitful life together. While Walter was in the Navy, they moved frequently.⁶⁵ Their first child, Theresa, was born in 1952 in Grand Prairie, Texas. Six other children were born thereafter, including the next two also in Grand Prairie, i.e., Kathleen Ann in 1954, and Walter Anthony (Tony) in 1955. The last four children were all born in the Naval Hospital in New Orleans, Louisiana, i.e., Dorothy Marie (Dot) in 1960; Mary Lee in 1962; Elizabeth Camille in 1963; and John Kester in 1970. (59)

Their last child was named after Sally’s father. Tragically, John Kester Cundiff, an ex-marine, was killed in a motorcycle accident in California in 1998, while on his way to work as a police officer. His widow and only child, Caroline, are living in Texas. (59)

Sally says her mother never discussed her father with her or described him to her. She believes her mother never got over her father’s traumatic death and it was too painful for her to discuss it. (59)

Sally and Walter lived with their daughter Dot Gilbert in Picayune, Mississippi, from around 1988 or 1989 until Walter died in February 2005. Sally continues to live with Dot and her family in Picayune. John Kester Cundiff is buried there. Sally Cundiff has 18 grandchildren (plus one who has died) and 12 great grandchildren, the legacy of John Kester Novinger and Pola Bradford Novinger. (59)⁶⁶

Recently, disaster struck this family again, fortunately without loss of life. Picayune, Mississippi is just a few miles east of New Orleans. As hurricane Katrina approached in August, 2005, Sally, Dorothy and her family were told they would be safe to stay in their homes and not to evacuate. However, the hurricane passed right over them. The roof was blown off of the trailer that Dorothy was living in and several trees were blown into the house that Sally was living in, totaling it. They are all now staying in a modular home which was moved onto the property while trying to restore Sally’s home. Mary Lee (Smith), who lives in Slidell, Louisiana, close to New Orleans, had her family’s home destroyed by three feet of flood water caused by Katrina.

⁶⁵ In a letter dated June 15, 1956, when she was almost 22 years old and living in Grand Prairie, Texas,, “Sally Novinger Cundiff, daughter and sole heir of the late Pola Novinger,” released to George Howe all rights to the remaining two burial sites in the Green Mountain Cemetery lot where her father and Leland Ward were buried. (56) Discovery of this letter and the revelation of Sally Novinger’s married name led to the finding of her internet adoption search listing which also revealed her daughter’s name and phone number. A call to Dorothy Gilbert in Picayune, Mississippi located Sally living with Dorothy and resulted in a telephone interview with Sally and Dot on February 19, 2006.

⁶⁶ Sally recalls a short visit by her paternal grandmother, Laura Belle Novinger, in California when Sally was around 5 years old. Otherwise, she recalls no contact with the Novinger family and little or none with the Bradford family after she left California with Walter. (59) She may have been in contact with the Bradfords, however, shortly after her mother’s death. A handwritten note in the Green Mountain Cemetery records indicates that Pola’s brother “H. Bradford” (presumably Harley Bradford) called the cemetery to advise that Pola’s surviving daughter, “now 16” would like to sell back the remaining two gravesites when she reached her majority. He also provided the daughter’s name and address as “Sallie Novinger, 39 Almatios, Long Beach, California.” (56)

One of the benefits of this research has been to help fill in the blanks for the surviving children and grandchildren about their parents’ and grandparents’ lives.

2. Leland Ward

Leland James Ward is buried in Green Mountain Cemetery, in Boulder, Colorado next to his first cousin, John Kester Novinger, adjacent to whom he was working when the Monarch Mine explosion took both their lives. (56)(57)

Leland's mother, Maud L. Novinger, and John Kester's father, William Novinger, were siblings. Maud was born in Kirksville, Missouri. Leland's father, Jack Ward, was from Pennsylvania. For many years, Jack Ward was the superintendent of the Kansas City Midland Coal mines at Novinger, Missouri. (54)

Leland was born on March 24, 1889, in Mendota, Missouri, located less than 50 miles northwest of Kirksville, near the Missouri/Iowa border. (56)(57)(60)(61)⁶⁷ He attended school in Kirksville and went to a business college in Quincy, in central Missouri. (54) Thereafter, he moved to Novinger "where he lived for several years." (54)

Some time prior to registering for the draft in 1917, at the age of 28, Leland married and moved to Detroit, Michigan. His draft registration card states he was married and that his wife was solely dependent on him for support. However, her name is not mentioned and is unknown. It is also unknown whether his wife was living with him at 1088 W. Fort Street in Detroit. Ward indicated that at that time he was employed doing "clerical work" at "U.S. Dredge & Dock Co." at "River Range & Miller Road," presumably in Detroit. (61)

On Sept. 21, 1917, after registering for the draft, Leland Ward enlisted in the U.S. Army. (60) He was sent to Camp Custer, near Battle Creek, Michigan, for training, and there was assigned to a Machine Gunner's Unit of Company E, 339th Infantry Regiment, and 85th Division. This unit was comprised mostly of men from Michigan and Wisconsin. (63)(64, at p. 13) One member of his unit, in a letter to his "folks" from Camp Custer on June 28, 1918, expressed this sentiment about his Regiment's impending embarkation for the front in the Great War: "It is hell, but I can't help feeling proud that I'm in the service of the U.S. and in the greatest war of all history." (64, at p. 13)

However, these troops were not headed for France to join the American Expeditionary Force which had been fighting the Germans on the Western Front for the last year. On November 17, 1917, Lenin and Trotsky, the leaders of the Communist Revolution in Russia, pulled Russia out of the war with Germany by signing the Treaty of Brest-Litovsk. While this freed the Bolsheviks to concentrate on consolidating their power at home and to fight the civil war against White Russian forces, it also allowed the Germans to move about a million men to the Western Front to participate in a major German offensive that began on March 21, 1918. By April that year, the Germans also had about 50,000 troops in Finland threatening to invade Russia, despite the Treaty, at Murmansk, "a recently developed ice-free port on the Arctic Ocean." (65, at p. 22-24)

U.S. President Woodrow Wilson, with some reservations, and then-British Minister of Munitions Winston Churchill agreed on the need for Allied intervention at Murmansk to open up the Eastern Front once again and to divert German resources away from the Western Front offensive. The Allies also wanted to prevent Germany from using Murmansk as a submarine base to harass Allied shipping in the northern waters, and to prevent the Germans from acquiring a considerable amount of Allied war matériel

⁶⁷ Leland's aunt (John Kester Novinger's mother), Mrs. Belle Novinger, was the "informant" who told Howe Mortuary that Ward was born on March 10, 1890, in Mindota, Iowa. (60) However, Ward's 1917 World War I Draft Registration Card, completed by him at the age of 28, lists his birth date as March 24, 1889, and his birth place as Mendota, Missouri. The latter date is consistent with the age of "31" he gave to the census taker in early to mid-January 1920. (62) That would have made him 47 when he died. The inscription on his tombstone does not list a date or year of birth, just his date of death.(57)

believed stored in Archangel, Russia, approximately 350 miles southeast of Murmansk on the White Sea. (65, at p. 23-25)

On July 17, 1918, Wilson committed three U.S. battalions of infantry and three companies of engineers to a joint British-American expedition in North Russia. (65, at p. 32.) In accordance with a decision of the Supreme Allied War Council in Versailles, France, these 5,000 American troops would be placed directly under the command of British, not American, generals. (65, at p. 34-35)

Leland Ward and his Company had already begun their journey to Archangel on July 14, 1918. They traveled by train via Detroit to Hoboken, New Jersey, boarded a "harbor craft" there and sailed past the Statue of Liberty to Long Island, where once again they boarded a train to Camp Mills, Long Island, New York. On July 21st, Company E., 339th Infantry mounted the gangplank onto a large British merchant ship, HMT *Northumberland*, which departed the next morning in a 17-ship convoy, including armed escort vessels, for England. (65, at p. 21-26)

They arrived in Liverpool on August 3rd, disembarked and trained to Camp Stoney Castle, Aldershot, southwest of London. On the way, each soldier was given a letter in an envelope imprinted: "A Message to You from His Majesty King George Vth." The message read:

Soldiers of the United States, the people of the British Isles welcome you on your way to take your stand beside the Armies of many nations now fighting in the Old World the great battle for human freedom.

The Allies will gain new heart and spirit in your company.

I wish that I could shake the hand of each one of you and bid you God speed on your mission.

George R.I.

April 1918

(65, p. 30, frontispiece)

On August 26, 1918, the 339th Infantry Regiment and accompanying forces aboard four transport ships sailed from Newcastle for Russia. Their route passed "through the North Sea, Norwegian Sea, and around Norway's North Cape, through Barents Sea, and into the White Sea." On the way, they experienced the first of the severe conditions they would encounter during the next year of this expedition – severe cold and an epidemic of Spanish influenza. The only medicines on board to treat the flu were "cathartic" pills, essentially laxatives. (64, at p. 38-40)

On September 5th, they sailed across Dvina Bay and up the Dvina River past the picturesque onion domes of the cathedrals in Archangel, and landed a short distance down river at Smolny, Russia. Donald E. Carey of Ward's unit described the Russia he experienced on arrival: "Mud, filth, and dark skies were our welcome. We were disappointed, disgusted and disheartened. Our welcome was unpleasant. Our prospects, gloomy." (64, at p. 41-42) Some men lay dying of flu in Archangel. Others were sent upstream and along the railroad to Petrograd and were soon dying of bullets while fighting the "Bolos," "the soldiers' term for the Bolsheviks or Reds." Almost immediately, the men began questioning the purpose of this expedition. (*Id.* at p. 43)

Also, because of the large amount of rifle ammunition that had been shipped by the Allies to the Kerensky government prior to the Bolshevik takeover, Allied soldiers were issued *Russian* rifles "to save the time and expense of transporting a vast supply of American and British rifle ammunition. These

Russian rifles were inferior in accuracy and reliability to American and British models on which Allied soldiers had trained. (*Id.* at 52-53, 107)

The war on the Western Front ended by Armistice on November 11, 1918, at 11:00 a.m. At that time, however, Leland Ward's Company E was still engaged in combat with the Bolshevik Army south of Archangel on the Emtsa River Front. They had dismissed persistent rumors that hostilities had ended on the Western Front. Their first confirmation that the rumors were true was found in the December 10, 1918 issue of the U.S. military newspaper *The American Sentinel*, while the 339th was still in combat, taking and inflicting casualties and losing and taking prisoners. Ward's unit spent Thanksgiving and Christmas 1918, at the front "still marooned in snowbound Russia and at war with the Bolsheviks." (*Id.* at 79-80, 99, 100, 101)

From December 29 to January 5, 1919, Company E participated in a pitched battle with the Bolos to initially capture the north Russian village of Kodish, suffering and inflicting numerous casualties, only to relinquish the village several days later. (*Id.* at 104-127)

Around January 16, Ward's Company was relieved at the front and returned to the Archangel area. It was from there that Leland Ward wrote to his wife,⁶⁸ addressed to "Mrs. L.J. Ward, Numa, Iowa, U.S.A., Appanoose County," on "January 22, 1919, Cold as the Deuce" (as he described the day), the following letter:

Darling Buddy:

Another letter to you today as the mail closes tomorrow and we must get our letters in before the mail closes.

I am getting along as well as ever and am still in Archangel but don't know how long I will be here. The Bolsheviks are still doing business up here but I don't think they can last long. It is bitter cold now and is about 35° below zero. 40° below on the Russian Thermometer equals 58° below on ours so you can see it is a bit frosty. It is a dry cold though and we have plenty of warm clothing so we don't mind it so much. Our barracks are pretty disagreeable being damp and none too warm. There are only nine of our company here at present. The rest of the platoon that was in for a rest have been sent to a machine gun school for two weeks and all us nine have to do is sleep, eat, and take a walk each day for exercise.

I am sitting with my back against a stove and my fingers are cold writing. We are putting a wooden floor in our quarters and I think they will be more comfortable now. The floors are cement and were pretty cold.

I don't have any hopes of getting back to the States before some time next summer. Of course we hear all kinds of rumors but the army lives on rumors and we can't believe a thing we hear and only half of what we see. I got a letter from Mildred some time ago and answered it but have not heard from her since. Tell her to write.

I am going to try and get hold of a few souvenirs while I am here but can't bring a great lot for we are only allowed to carry one hundred pounds of baggage and that includes our clothing and equipment. I would like to get a samovar but they are so large that I don't think I shall have room.

I think our troops up here are better off in regards to coming than a great many of those in France for some of the boys there won't get home for a year and I really think we will be discharged by the last of August.

I suppose you get your check regularly. If not write to Washington about it.

⁶⁸ Permission to reproduce Ward's letter has been graciously provided by its owner, Roger L. Heiple. Since the letter is addressed to "Mrs. L.J. Ward," and in the body of the letter, Lee refers to her only as "Darling Buddy," we can not identify her name from the letter. (66) Numa, Appanoose County, Iowa, is located in southeast Iowa, close to the Missouri border and not far from Kirksville.

Give my love to all the folks and oceans of love to my own from
Your loving hubby

Lee

(66)

E Company and the rest of the 339th Infantry were in and out of combat with the Bolshevik army in Northern Russia until the middle of May 1919, enduring the severe winter conditions described by Ward and earning the nickname of the “Polar Bear” Expedition. (63) On June 2, 1919, the entire regiment boarded HMT *Czar* at Economia, Russia. The next day they sailed out of Russia in a five ship convoy, one loaded with French troops, as France was also withdrawing her troops at that time. (64, at p. 201-02) On June 11th, they landed in Brest, France, to which they thought they were headed in July 1918, to “make the world safe for democracy.” (64, at p. 206) Most of the troops in the 339th, including Company E, sailed from Brest on June 22, 1919, on the U.S.S. *Von Steuben*, a captured German raider (the *Kronprinz Wilhelm*), converted into a troop transport vessel. On June 30th, they passed the Statue of Liberty once again and docked at Hoboken, where they disembarked on U.S. soil with a joy that “none but a home-returning soldier could fully realize.” (64, at p. 219-20)

Detroit Mayor Frank Couzens headed a welcoming committee that met this contingent of the 339th in New York Harbor and escorted them on the train ride back to Detroit. There a welcoming ceremony and party were held on Belle Isle in the Detroit River on July 4th. (63)(64, at p. 222-23)

Upon their return and learning that one of the platforms of the American Legion was to “stamp out bolshevism in the United States,” many members of the 339th joined the American Legion. Judging from his funeral, Leland Ward was likely one of them. (18)(64, at p. 239)

Ward was discharged from the Army on July 7, 1919. (60) According to the 1920 Census taken on January 10 and 15, 1920, he remained in Detroit and was living alone as a “lodger” on Milwaukee Avenue East. He was 31 years old and working as a bookkeeper in a factory. He still indicated that he was married, but he certainly was not living with his wife. (62)⁶⁹ By the time he arrived in Colorado 16 years later, he was described as “single” or “not married,” with no indication of any children. (1, at p. 44)(5)(17)

Almost nothing can be found about Leland Ward’s life between 1930 and January 1936. At some point he was apparently divorced from “Buddy,” but where and when is unknown. The January 22, 1936 Kirksville Daily Express article about Ward and Novinger’s death states that Ward “spent several years in Detroit, Mich., and returned to Kirksville a few years ago.” (54) In early January 1936, he left Kirksville for Broomfield, Colorado, where his brother, Arthur Ward, was employed as a foreman at the Monarch Mine. Lee started work at the Monarch Mine on January 15, 1936, and was on only his third shift when he was killed in the mine explosion. (54)(5)(17)(1, at p. 44)⁷⁰

Although Ward’s funeral was held jointly with his cousin’s, Ward’s component was attended by full military honors.⁷¹ His casket was covered by an American flag because he was “a veteran of the World War. The colors of the Louisville Legion Post were prominently displayed, and 20 members of the

⁶⁹ The 1920 Census for Moulton, Appanoose County, Iowa, taken on January 9, 1920 lists a “Lottie” Ward, age 30, and divorced. (67) Was this Leland’s wife?

⁷⁰ The SMI’s 1936 Report states that Ward had “12 years” of mining experience, but no other available information confirms that fact. He was working as a “day man” doing maintenance work on the firewalls along with Novinger when they were killed. The SMI also stated that Ward was 39 when he died. In fact he was 47. (1, at p. 44)(61)

⁷¹ Initial funeral arrangements for Ward’s funeral were made by his Aunt, Mrs. Belle Novinger, the mother of John Kester Novinger. She also gave background information to Howe Mortuary on Ward. Ward’s brother, Arthur (“A.C.”) Ward paid the balance of Leland’s funeral costs of \$27.78, not covered by his employer’s insurance company (\$125) and the U.S. government (\$100). (60)

Louisville Post and a number from the Boulder Post were in attendance.” At Green Mountain Cemetery, a Legion firing squad fired three salutes as Ward’s body was lowered into his grave.⁷² (18) The epitaph on his modest gravestone seems to have summed up the highlight of his life, his military service in Northern Russia, despite its hardship:

LELAND J. WARD

-

MICHIGAN

-

1 SGT. 339 INF.

85 DIV.

JANUARY 20, 1936

(57)

In addition to his brother Arthur of Louisville, Ward was survived by his nephew, Richard Ward of Broomfield, and his niece, Mrs. Marjorie Krisman of Lafayette. (17)

Coincidentally, Britain’s King George V, whose greetings Ward likely received in England in 1918 on the way to Northern Russia, also died (of bronchitis) on January 20, 1936.

<http://britannia.com/history/monarchs/mon60.html>, 14 Aug. 2006.

3. Tom Stevens

Thomas Mitchell Stevens was born on September 7, 1902, in Pictou, Colorado, a small coal mining town in Huerfano County, in Southern Colorado. His father, Joe Stevens, a coal miner, was born in England in 1884. He died in 1943. His mother, Alice Mitchell, was born in Colorado in 1885. She died in 1935. Her father was from Wales, her mother from England. (34)(68) Joe and Alice Stevens are buried in the Stevens family plot in the Louisville Cemetery. (72)

When Tom was a year old, his family moved to Louisville, where Tom lived the rest of his life. (34) According to the 1920 U.S. Census for Louisville, Tom, then age 17, his parents, and his six siblings – older brother John (then 18), younger brothers Fred and Joseph, and younger sisters Norma, Margaret, and Mildred -- were all living together on Grant Street in Louisville. Joe Stevens was working as a coal miner in the Louisville area. (68)

Around 1922, when they were both 20 years old, Tom Stevens married Josephine (“Josie”) A. Biella somewhere outside of Boulder County.⁷³ By 1930, Tom and Josie, then both 27, were living on La Farge Avenue in Louisville. Tom was employed as a coal miner as was his older brother John, who also was living on La Farge. (69) His younger brother Joe also became a coal miner and continued to live in Louisville. (28)(29)

Josie Biella was the daughter of Joe and Marietta Biella. Her parents were born in Italy and came to the U.S. at the turn of the 20th Century. Joe, who came from a family of Italian farmers, initially

⁷² The Camera article on Ward’s funeral mistakenly reported that Ward had served with the 339th Regiment “in Siberia.” Other U.S. troops did fight the Bolsheviks in and around Vladivostok, Russia in Siberia during and after the end of World War I in Europe. They left Siberia on April 20, 1920. John Culloton, “American Troops in Northern Russia and Siberia: World War I, 1918-1920,” <http://www.militaria.com/8th/WW1/siberia.html>, 14 Aug. 2006.

⁷³ Thomas M. Stevens and Josephine Biella certificate of marriage (out of county) was recorded by the Boulder County Clerk and Recorder on July 31, 1923, book 449, page 550, reception number 90191617. They advised the 1930 U.S. Census taker that they were both 20 years old when they were married. (69) Stevens’ obituary in The Louisville Times erroneously reported that their marriage occurred in 1928. (34)

worked in coal mines in Hanna, Wyoming, where Josie was born. Josie's older sister, Lela, was born on August 24, 1900, in Casaleggio, Provincia de Novara, Torino, Italy. She emigrated from Italy to America with her parents when she was 40 days old. (29) Josie Biella's youngest sister, Inez, was also born in America on December 7, 1905. 9<http://ssdi.rootsweb.com/cgi-bin/ssdi.cgi>.)

Joe Biella left Wyoming and moved to Louisville shortly after he narrowly missed being involved in an explosion in Hanna at the Union Pacific Coal Company's Mine Number One on June 30, 1903. That coal mine explosion killed 171 miners.⁷⁴ (29) A photo taken in the Louisville Post Office in 1916 during World War I shows Josie's older sister, Lela Biella, then age 16.⁷⁵ In 1930, Tom and Josie were living with Josie's father, Joe, at the home he owned at 1016 La Farge Avenue in Louisville. Tom's brother, John W. Stephens, lived in the same block on La Farge Avenue with his wife Helen Romano and their daughter Vivian. Steve Davis and his wife Josephine lived across the street from Tom Stevens. (69)

On May 17, 1930, Tom and Josie's only son, Donald, was born at home on La Farge Avenue. Tom and his family were still living there on January 20, 1936. Josie's sister, Inez Paprocki and her husband, John Paprocki lived next door. Josie's other sister, Lela Biella Zurick, and her husband Joseph A. Zurick lived nearby on 1000 Grant Street, with their son Vernon, born on March 18, 1926. (28)(29) The three Biella sisters remained very close throughout their lives.

Don Stevens was 5 years old when his father was killed in the Monarch Mine Explosion at the age of 33. Don is now 71 and living in Loveland. He has only the slimmest recollections of his father and the events surrounding the Monarch Mine explosion. He recalls coming home from the St. Louis School in Louisville that day and finding his Mom and his Aunt Inez in the dining room crying together. He did not really understand what was going on. The day of his Dad's funeral (Thursday, January 23, 1936), Don remembers being picked up at home by his uncle, John Stevens, and being taken to the funeral parlor (Henning Mortuary in Louisville). He observed his father in his coffin and noticed he had bandages on his head and arm. Don's mother told him that his father was not supposed to work the night he was killed. Another miner had called Tom and asked him to take that shift, which he did. (28)

Don's older cousin, Vernon Zurick, age 10 at the time of the explosion, has more detailed memories of those sad events. He recalls it was a cold day, gray and dreary. Some "Italian ladies" stopped by his house on the way to the St. Louis Church and told his mother, Lela, there had been an explosion at the Monarch Mine. Vernon knew his uncle, Tom Stevens, was in the mine at the time of the explosion. A couple of days later, his father, Joseph Zurick, also a miner, came home and told Vernon's mother Lela that they had found Tom's body. His father had in his possession the ring Tom was wearing when he was killed. Vernon does not know what happened to the ring. (29)

Since he was a child, Don Stevens has heard from others that "everybody liked my dad." (28) Tom Stevens' funeral seemed to bear out his broad popularity. "Hundreds of sympathizing friends and relatives" were present. People "came from Denver, Boulder, Longmont, Lafayette, Erie, Puritan mine, Frederic, Arvada and surrounding communities." Pall bearers were Tom's brothers John and Joe Stevens and his brothers-in-law Joe Zurick, John Paprocki, Eddie Brown, husband of Tom's sister Norma of Denver, and Frank Domenico, husband of his sister Marge of Louisville. Tom's father, Joe Stevens, survived him, but his mother Alice Mitchell had died three months earlier on October 14, 1935. His grandmother, Mrs. Mary Mitchell, also outlived Tom. (34)

Vernon Zurick remembers being in a car near the front of the funeral cortège and looking back to see a long line of cars snaking its way up the hill by Mayhoffer's farm on the old route to the Louisville

⁷⁴ See http://www.wsgs.uwyo.edu/Coal/HistMineInfo.aspx?Text_Only=yes, 17 Aug. 2006.

⁷⁵ Photo of Lela Biella, Call Number: X-12190, <http://photoswest.org/cgi-bin/imager?10012190+X-12190>, 20 Aug. 2006.

cemetery where Stevens was buried. According to Zurick, “people said it was the biggest funeral ever.” (29) On January 23, 1936, the day of Tom’s funeral, The Louisville Times published a “Card of Thanks” from “Mrs. Josephine Stevens and son Donald” extending their “most sincere thanks and appreciation for the many kindnesses” that were shown them “since the tragic death this week of our beloved husband and father.” (34)

As was the case with all the widows created by the Monarch Mine explosion, especially those with children, Josie Stevens’ plight following her husband and family breadwinner’s death in Depression-year 1936 was daunting. But she was resourceful. According to Don, his mother “took in washing and ironing and everything like that to make a living for us,” and “she did a very good job” at it. In the absence of his father, Don’s uncle, John Paprocki, who lived next door, became a surrogate father to him. Don credits his mom, who never remarried, and her sisters and their husbands as combining to raise him and make sure he “stayed on the straight and narrow.” Don felt the loss of his father the most through his frequent wishes that he had had a brother or sister. (28)

Despite her personal struggles, Josie and her extended family continued to participate in the civic life of Louisville. An August 20, 1936 item in the Social Notes of The Louisville Times reported that “Mrs. Josephine Stevens” was among the guests at the “S.S. Club” that met that week at the home of Mrs. Joe Zurick, along with her sister, “Mrs. John A. Paprocki,” and several other women. (70)

Eventually, Josie Stevens was hired by the Mountain States Telephone Co. in Louisville as an operator. Around 1942, she was promoted to a manager position and moved to Milliken, Colorado with Don, then age 11 or 12, to manage the telephone office there. Approximately one and a half years later, Don and his mother moved to Berthoud where Josie managed the Berthoud telephone office. Don graduated from Berthoud High School in 1947. Since moving to Milliken, Don had little contact with his father’s family. (28)

After high school graduation, Don worked for J.C. Penney for about six months and then for McDonald’s Clothing Store until about 1950 when he got a job with the telephone company. Except for his time in military service, Don worked there for the next 35 years in various positions (lineman, cable repairman, and installer) and retired in 1985. In the early 1950’s, Don was drafted into the U.S. Army for 2 years, including 13 months in Korea as a wireman for a field artillery battery during the Korean War. (28)

Following his military discharge, Don returned to Berthoud and married Dora Onorato, whom he knew from the time he lived in Milliken. They were married for almost 47 years and had three sons. In 1959, the Stevens bought a home in Loveland, where Don still lives. Around the time Don retired, Dora became afflicted with MS at the age of 55. Don cared for her by himself at home for about 10 years, and then for several years with help. She died in 2001. Don’s middle son, Richard, also died of MS on October 30, 2005, in Loveland at the age of 49. Richard is survived by a son, Cody Stevens, and daughter, Kathryn Carlson, both living in Nebraska.⁷⁶ Don Stevens also has another grandchild, Corbin, by his youngest son, David, who lives in Loveland. His oldest son, Tommy, is unmarried and lives in Colorado Springs. (28)

Josephine Stevens died in 1971. She is buried in Louisville Cemetery alongside her husband Thomas M. Stevens. A single headstone adorns their adjoining graves, engraved with their names and the years of their respective births and deaths. (72)

4. Tony De Santis

⁷⁶ “Obituary of Richard Stevens,” LovelandFYI, <http://www.lovelandfyi.com/obituaries/obituary-story.asp?ID=745>.

Luigi Antonio De Santis was a young boy about 14 years old attending school in Italy when his older brother Val summoned him to Colorado and immediately started “Tony” on his career as a coal miner. At first, Tony worked outside jobs at the mines, like sorting coal, until he was old enough to work inside the mines. He spent the rest of his life as a coal miner. (73)

Tony De Santis was born on July 4, 1898, in Consano, Italy, about 90 miles east of Rome. He had completed about 8 years of schooling in Italy before emigrating to the U.S. around 1912.⁷⁷ Tony was boarding with a neighbor of the La Salle family in Louisville when he met his wife, Adeline Mary La Salle. They were married on February 18, 1920, when Tony was 21, and Adeline, born in Louisville on June 26, 1903, was only 16. Eventually, Tony became a naturalized U.S. citizen. (73)(74)(75)

Tony worked at the Hecla Mine and was caught up in a violent strike at that mine. He told his children he and a friend went to the mine during the strike and were shot at by mine employees. His friend was hit and Tony found a bullet hole in his pants leg when he got home. The militia had to be called out to suppress the violence.⁷⁸ (73)

Around 1920, Tony moved his family to Southern Colorado, where he and Adeline started their family, which eventually included six children. Louis, the first child, was born on July 4, 1921, in Oakview (also called “Tropic”), Colorado, a mining town in Huerfano County. Doris (Winslow), the next child, was born on June 22, 1924, in Berwind, Colorado, once a bustling mining town in Las Animas County located less than three miles from the site of the Ludlow Massacre of April 20, 1914.⁷⁹ (73)

Two other daughters followed, Violet Ann (Varing), born April 20, 1925 in Louisville, and Elaine Mary (Biella), born October 6, 1933, in Louisville. Another son, Dominic De Santis, was born on September 14, 1929, in Farr, Colorado, also known as Cameron, near Walsenburg. (73)

From 1920 to 1936, Louis recalls, his family moved back and forth between Southern Colorado mining towns and Louisville. Louis started school in Louisville in 1926, at age 5, and attended school there for 3 years. Then his family moved to Berwind, where he attended school from the 4th to the 6th grade. Louis spent the 7th and 8th grades in Cameron. Back in Louisville in 1935, he attended Louisville High School and graduated in 1938. (73)

Around 1935, when Doris was about 10 years old, Tony and Adeline moved their growing family back to Louisville, where Adeline’s family resided. Tony had repeatedly told his sons that he did not want any of them working in the mines. He moved to Louisville, in part, because it was near the University of Colorado in Boulder. Tony hoped that his children would attend the University or some other college. (73)

The De Santis’ youngest child, Dean William, was born in Louisville on August 24, 1935, less than 5 months before Tony was killed in the Monarch Mine explosion. (73)(74)

⁷⁷ The funeral notice in the Camera on January 22, 1936, stated that De Santis arrived in the U.S. in 1914. (17) His children believe it was around 1912 (73)

⁷⁸ This could have been either during the strike and violence involving the Hecla Mine in April 1914, or during similar events in November 1927. In both instances there was shooting and deaths and the militia was called out to restore order. (76, at p. 24-27) Tony De Santis appears to have been living in Louisville during both episodes. (73)

⁷⁹ The people who participated in the 1913-14 Southern Colorado coal field strike which resulted in the Ludlow Massacre lived and worked in Berwind and dozens of other mining camps in the vicinity. “Archaeology of Berwind,” Colorado Coal Field War Project, <http://www.du.edu/anthro/ludlow/berwind.html>, 21 Aug. 2006.

When the De Santis family moved to Louisville in 1935, they lived at 1045 Front Street with Adeline's father, Michael ("Mike") La Salle, who owned that home.⁸⁰ Mike was born in Carbona, Italy in 1867. His wife, Rosa Scran, also from Carbona, was born in 1871. They married in Italy in 1888. Mike, attended trade school in Italy and became a carpenter. He came to the U.S. soon thereafter and sent for Rosa in 1891. She traveled a long and trying month in steerage to join him. In addition to Adeline, they had 5 sons in the U.S. who all lived and grew up in the family home on Front Street. Mike worked the mines in Marshall and did carpentry work on the side. (73)(74) Rosa La Salle died in 1928. Mike La Salle continued to live with the large De Santis family at 1045 Front Street until his death in 1945. The kitchen became Mike's bedroom in 1935 when the De Santises moved in. (73)(75)

Adeline De Santis acquired title to the home from her father after her husband Tony's death. She quitclaimed title to her daughter, Doris Winslow, prior to her death on May 31, 1986. Doris continues to own and reside there to this day. (73)

The De Santis children have fond memories of their father and their childhood relationship to their parents. Lou recalls that his "mother taught my dad English and my dad taught my mother Italian." However, the children were not taught Italian. His parents told him: "You're Americans; you'll speak English in the home." His parents didn't speak Italian around their children, but did speak that language when they socialized with other Italian immigrants. (73)

Doris recalls that her father was a fine musician who played the trumpet and mandolin. She relates that every year at Christmas and New Year's her father and a group of other ethnic Italians in Louisville would form a band and go around and serenade every house. (73)

Louis De Santis was 14 years old and a freshman in high school when his father was killed. Doris Winslow was 11. They have different memories and reactions to that traumatic event in their lives. Lou remembers his Uncle John (La Salle) coming to his home the morning of January 20, 1936, and telling his "mom there was a big explosion out at the [Monarch] mine." He said: "I'm afraid Tony was in there." La Salle then went back to the mine to help with the rescue work. Doris recalls being told at school about the explosion. The family waited about two days with slim hope that Tony would be found alive, but they "knew better." His body was recovered on Tuesday night, January 21st. He was 37 years old. His family did not stand vigil at the mine shaft. Their mother, Adeline, was too distraught to go there. (73)(5)

Doris does not "remember anything except Mom crying and grieving." She was devastated by her father's death. She still has a phobia about tunnels and a fear there is going to be an explosion which she attributes to the manner of her father's death. She notes that "they didn't treat children with emotional problems in those days." Lou also recalls his father and Uncle John frequently mentioning that the Monarch Mine was "loaded with gas" and that the mine managers knew it." To this day he believes that his father's death was a "tragedy that shouldn't have happened." (73)

Tony De Santis' funeral was held on Friday morning, January 24, 1936, at the St. Louis Catholic Church in Louisville. Arrangements were handled by Henning Mortuary. He was buried in the Louisville Cemetery. Besides his widow and 6 children, he was survived by his parents in Italy and his brother, Val De Santis, of Louisville. (17) He also had a sister in Italy. (73)

Adeline De Santis had not worked outside her home before her husband's death. To supplement the \$50 per month insurance payments she received for about 3 years from the mining company's insurer, she began doing washing and ironing for people in Louisville who could afford it. In 1936, Social

⁸⁰ Nick Del Pizzo, one of the two survivors of the Monarch Mine explosion, lived just across the alley from the De Santis/La Salle family. (73)

Security death benefits were not yet in effect.⁸¹ Therefore, none of the widows and children of the deceased miners received any governmental death benefit. When the compensation ended, Adeline, with very little experience, sought work outside the home. She started as a salad maker in restaurants. During World War II, she worked in the restaurant at the Remington Arms Munitions plant at the Federal Center. Towards the end of the war, she worked in the restaurant at Union Station in Denver. She also worked for Bauer's in Denver, a candy company that also made cakes and pastries. Later on, as the restaurant business grew in Louisville, she worked as a cook at Colacci's. She retired in 1965 at the age of 62. (8)(73)(74)

Adeline De Santis was also very musical. She loved to sing in the choir and with other Louisville women put on theatrical musicals. At the age of 65, she taught herself to play the piano by mail order instructions. (73) Adeline was also active in the Louisville Garden Club. In 1957, she and fellow club members were the moving force behind the establishment of Louisville's first park, Pirate's Park, now maintained by the City of Louisville. (74)

Adeline De Santis died on May 31, 1986, at the age of 82, over 50 years after her husband's death. (75) She never remarried. She is buried alongside her husband Tony in the Louisville Cemetery with a common headstone above their adjacent graves. (77)

Despite the hardship of their father's death while they were still children, the De Santis children persevered and thrived. Louis Anthony De Santis worked after school at Jacoe's Grocery (now the home of the Louisville Historical Museum) to help support his family. During World War II, he was with a photographic reconnaissance squadron in the Navy Air Corps stationed in Guadalcanal and throughout the southwest Pacific. He worked at the Rocky Flats Nuclear Plant for 26 ½ years as a technician analyzing metal. He and his wife Anne, married in 1954, live in Arvada. They have 3 children and 4 grandchildren. (73)

Doris and Violet De Santis also worked at the Remington Arms Munitions plant during World War II until it ended. They taught workers how to assemble and dismantle 88 mm booster shells. Doris worked at Russell Stover's candy factory dipping chocolate for 12 years. Later, she worked as an expeditor for the Boulder Valley School District ("BVSD") for 17 years until retirement. She married and divorced and had no children. (73) Violet worked at Rocky Flats as a secretary until she got married. After her husband, Donald Varing, died in 1982, she worked at Wal-Mart as a clerk. She has two children and two grandchildren. She lives in Lafayette, Colorado. (73)

Elaine also worked for a period at Rocky Flats as a secretary. She married Richard Biella in 1954 at the age of 21. She retired as an employee of the BVSD. The Biellas have 4 children and 6 grandchildren. They now live in Montrose, Colorado. (73)(8)

Dom De Santis attended the University of Colorado for about a year, but completed his teaching degree at the Teacher's College in Greeley (now the University of Northern Colorado). He also served in the U.S. Navy Air Corps during the Korean Conflict. He became a teacher, Assistant Principal at Burbank Junior High School, and Director of Secondary Education in the BVSD. He married Dolores R. Bauer in 1958. They had 2 children and 6 grandchildren. Dolores died in 1980. Dom died on April 24, 2000. (73)(74)

⁸¹ The Social Security Act was signed into law by President Franklin D. Roosevelt on August 14, 1935. However, Social Security taxes did not begin to be collected until January 1937. Survivor's benefits were not added until 1939. <http://www.ssa.gov/history/hfaq.html> (23 Aug. 2006).

Dean William De Santis, the youngest child in the family, also attended C.U. for one year. He then went to work at Gates Rubber Co. and retired there in 1991 as head of the belting department. He married Judy Thompson in 1960. They live in Broomfield, Colorado. They have 2 children and one grandchild. (73)(74)

Thus, Tony De Santis, despite his premature death in the Monarch Mine explosion, along with his wife Adeline and through his 6 children who survived him, produced a living legacy of 13 grandchildren and 19 great-grandchildren.

5. Joe Jaramillo

Joseph C. Jaramillo was born in New Mexico in 1887. (37)(39)(78) In the 1930 Census, indicated that both his parents also were born in New Mexico. (78) Clearly a native born citizen of the U.S. he still was listed by the SMI as of "Mexican" nationality and was referred to in newspaper accounts following the Monarch Mine explosion as "Mexican Joe." (1, p. 44)(12) Joe also had a brother who lived in Chicago and worked for the railroad. (39)

Joe Jaramillo had been working in coal mines for at least 20 years prior to his death. He was the barn boss the Monarch Mine, in charge of the mules that lived and worked in the mule barn inside the mine. Joe was responsible for feeding, watering, and caring for the mules, getting them ready to go to the coal working areas, driving fresh mules there, and retrieving the tired ones and returning them to the barn. (39)

Joe married his wife, Josephine Crispen, when he was in his 30s and she was a teenager. She was born in Las Vegas, New Mexico. According to the 1930 census, both her parents were also born in New Mexico. (39)(78)

The Jaramillos had four children, all born in Colorado at the Monarch Mine Camp, according to his grandchildren. The oldest was Henrietta, born around 1919. Next was Joe Jr., born on March 18, 1921, followed by Josephine, born in 1922 or 1923, and Ernest, born around 1924. All four children were living at home in the mining camp at the time of the explosion and were present, preparing to go to school, when the mine literally blew up beneath them. (39)(79)

Shortly after Joe Sr. was killed in the explosion at the age of 49, Henrietta got married, became pregnant, lost the child and died. Her married name was Sanchez. Daughter Josephine also became ill that year and died. Joe Jr. and Mary Jaramillo told their grand children that Joe Jr.'s sisters died of broken hearts over the death of their father. Henrietta and Josephine are both buried in the Louisville Cemetery in unmarked and unidentifiable graves. (39)(79)

After her husband's death, Josephine Jaramillo and her children moved to the Puritan Mining Camp, near Erie, Colorado. Joe Jr. had started going down in the mines on weekends at the age of seven to tend mules with his father. Just 14 when his father was killed, he quit school and went to work full time in the Imperial Coal Mine in Weld County to support his family. At age 16, he began working underground and labored his entire career, 42 years, as a coal miner. According to one of his cousins, when Joe Jr. first went down in the mines "his lunch pail about hit the ground, he was so young." As a sideline, he gave people haircuts. (15)(39)

Joe Jaramillo, Jr. met his wife, Mary Lontine, while living at the Puritan Camp with his mother. Her father had immigrated to Trinidad, Colorado from France, where he worked in coal mines. Mary was born in Starkville, Colorado, just outside of Trinidad, around 1920. She had three siblings. Her parents divorced and placed their children in an orphanage in Denver where they felt they would be better cared for in hard times than with other relatives who had many mouths to feed. At 16, Mary joined her father at

the Puritan Mining Camp, where she met Joe Jr. They were married on September 16, 1937, when they were both teenagers. (39) They continued to live in the Puritan Mining Camp with Joe's mother and brother Ernest.

Four of Joe Jr.'s and Mary Jaramillo's six children were born in the Puritan Mining Camp: Josephine, the oldest, in 1938; Robert, born in 1939; Margurite, born in 1940; and Barbara, born in 1942. The Jaramillo family moved to Lafayette, Colorado around 1942, where Nancy was born the following year. Joseph Frank ("Frank"), the youngest, was born in 1946. All the children, except Nancy, were born at home, delivered by Dr. Edison, who was also the local Justice of the Peace. They all attended school in Lafayette and graduated from Lafayette High School. They all were married in Lafayette. (39)

Josephine Jaramillo, Joe, Sr.'s widow, lived with Joe Jr.'s family until after he returned from service in World War II. Then she lived with her sister, Julia Montez,⁸² in Lafayette. Josephine's son Ernest lived there with his mother. Around 1950, Josephine moved to Las Vegas, New Mexico to live with her other sister, Tillie Rivera. Ernest lived there with her until her death around 1956 at age 56. She never remarried.

After his mother's death, Ernest returned to Lafayette to live with his brother Joe Jr.'s family.. While living in Lafayette after leaving the mining camp, Ernest suffered very serious head injuries in a bicycle accident, resulting in grand mal epileptic seizures. He never married and died in his 40s. (39)

While living in Lafayette with her sister Julia during the Depression, Josephine Jaramillo and her extended family received commodities support from the County of Boulder. For example, Joe Jr. told his children, a County truck would drop off butter base. The family would mix it up with some "orange stuff" to make butter. Aunt Julia told them that everyone endured hard times during the Depression, but they were happy. Everyone, regardless of their origins, was in the same situation and no one in their community lived better than anyone else. (39)

Joe Jr. never talked to his children about the day his father was killed in the Monarch Mine explosion. But he did communicate the impression that Joe Jaramillo, Sr. was a very proud man, very family oriented, whose main priority was to keep his family together. Joe Jr. felt he was put in the position of having to be the "father" to his family after Joe, Sr. was killed, and mining was all he knew. But Joe Jr. always said he didn't want his sons working in the mines. He also was an advocate for better safety in the coal mines. He fought hard for improved safety and benefits, according to his children. His daughter Barbara recalls campaigning for him when he once ran for office in the United Mines Workers Union. (39)

Late in World War II, Joe Jr. was drafted into the Army, despite having a wife and 5 children as dependents. He was wounded at one point, and received a Purple Heart. Later in the war, he was taken prisoner and spent several months in a German prison camp until being liberated in 1945. He was awarded a ribbon by French Gen. Charles DeGaulle at the Arch de Triomphe in Paris after the war. He returned to Lafayette and his family, fathered his sixth child, Frank, and continued his career as a coal miner. (39)

Joe Jaramillo Jr. died of a heart attack in April 1978, at the age of 57, just a few months after retiring from mining in late 1977. His widow, Mary, now 86, survives and lives Wheatridge, Colorado.

Josephine Jaramillo, Joe Jr.'s oldest child, married Evaristo "Lally" Najera, a native of Longmont, in Lafayette in 1955. They have two sons who live with their families in Thornton and Lafayette, Colorado. Lally died in 1972. Josephine still resides in Lafayette. As an adult, she got her

⁸² Julia's husband, a coal miner, was electrocuted in a mine accident. All 8 of Julia's sons became coal miners.

college degree from Metro State in Denver and now works for Centaurus High School. (39) She is active in community, school and church activities.

Robert, Joe Jr.'s oldest son, started work at a young age. He now works as a heavy equipment operator in Australia. (39)

Margurite (Carroll) attended the University of Louisiana for a couple of years, then got married, and moved to Lake Arrowhead, California. Barbara (Barela), at age 16 or 17 went to work at Mountain Bell and retired from its successor company, U.S. West, in 2000. She lives in Westminster, Colorado with her family.

Nancy (Martinez) went to work at a bank right after graduating from high school. She then worked for Frontier Airlines for 20 years, followed by the U.S. Post Office. Until 4 years ago, she lived in Arvada. Then she and her husband retired from the Post Office and now reside in Arvada. Nancy was most responsible for maintaining her grandfather's grave marker located above the site of the Monarch Mine explosion until it was moved by Westcor to Varra Park at FlatIron Crossing in June 2000. (9)(38)(39)

Frank graduated from Denver University, then spent 4 years in the U.S. Navy, including a tour aboard a ship off the coast of Vietnam during the Vietnam War. He then pursued a career with the U.S. Post Office and moved with his wife to Westminster. On February 6, 1993, he was appointed Post Master of Boulder County.⁸³ He died on October 24, 1994. (39)

Among them the 6 grandchildren of Joe Jaramillo, Sr., all children of Joe Jaramillo, Jr., have 13 children, the great-grandchildren of Joe and Josephine Jaramillo. (39)

6. Steve Davis

Stephen ("Steve") Davis was born in Wales in 1878. His wife Winifred was also born in Wales, on Jan 9, 1882, in Morriston, Glamorganshire, South Wales. Both sets of their parents were from Wales. They were married in Wales in April 1902, when Steve was about 24 and Winifred was 20. (80)(81)(82)(84)

The Davises emigrated to the U.S. together, sailing from Liverpool on the ship *Teutonic*. They had been living in Pontardawe, Glamorganshire, Wales prior to their departure. They arrived in New York and entered the U.S. through Ellis Island on August 27, 1903. Stephen was 25 and Winifred was 22. (83)

Steve and Winifred Davis first settled in Rockvale, Fremont County, Colorado, southeast of Canon City, near Florence. They resided for some time thereafter in Wyoming before moving to Louisville around 1910. (80) Indeed, the 1910 U.S. Census for Louisville, taken on April 27, shows the Davises residing there. Steve was employed as a superintendent in a coal mine. (84)

Various Boulder County Directories show Stephen Davis, a miner, and Winifred Davis residing at various addresses on La Farge Avenue, Louisville from 1916 until 1935.⁸⁴ The Records of the Boulder

⁸³ "Postmaster Finder: by City," <http://webpmt.usps.gov/pmt003.cfm>, 23 Aug. 2006.

⁸⁴ The R.L. Polk Directory Co.'s 1916 Boulder County Directory, p. 412 lists: "Davis Stephen, miner, r 524 La Farge av." (There is no listing for Winifred Davis that year.) The R.L. Polk Directory Co.'s 1918 Boulder County Directory, p. 356 lists: "Davis Stephen (Winifred), miner, r 524 La Farge." The R.L. Polk Directory Co.'s 1921 Boulder County, p. 270 lists: "Davis Stephen (Winifred) miner h 524 La Farge av." The 1926 Boulder County Directory, p. 419 lists: "Davis Steph h520 LaFarge av." The 1928 Boulder County Directory, p. 435, lists: "Davis Steph h536 LaFarge av." The 1930 Boulder County Directory, p. 471, lists: "Davis Steph h536 LaFarge av." The

County Clerk and Recorder indicate that Winifred Davis took title to the house on La Farge Avenue in 1927. At that time the address was likely known as 536 La Farge. (85) It was not unusual for miners who owned their homes to take title in their wives' names because of the risk they would be killed in a mine accident.

The Davises lived together at 536 La Farge until Steve was killed in the Monarch Mine explosion at the age of 58.⁸⁵ They had no children during their almost 34-year marriage. A funeral service was held for Steve Davis at the Henning Mortuary in Louisville on Saturday afternoon, January 25, 1936, at 3:00 p.m. However, after the funeral his body was shipped to Florence, Colorado for burial. Like Josephine Stevens, her neighbor across the street, Winifred Davis submitted a card of thanks to The Louisville Times for the support and assistance many people had given her following her husband's death. (34)(18)(88)⁸⁶

Winifred continued to own and live at that home until her death on August 13, 1963. At some point the City of Louisville changed the address to 1021 La Farge Avenue.⁸⁷ Winifred had been an active member of the Methodist Church in Louisville. She also never remarried. (80)(82) Winifred, despite her 81 years of age, apparently had been in good health. She suffered a heart attack on August 12, 1963, while at home. Her niece, Jane L. Philipsen, of Brighton, Colorado, was notified, responded, and had Winifred moved to the Brighton Community Hospital by ambulance, where she died the next day. She survived her husband, Steve, by over 27 years. (80)(82)

Later in August, 1963, Ms. Philipsen petitioned the Boulder County Court for the appointment of M.H. Philipsen to administer Winifred's estate, which request was granted. Winifred's heirs were listed as her three sisters: Mrs. Margaret Ann Isaac of Morriston, Glamorganshire, South Wales; Mrs. Edith Thomas of Mountain Ash, Glamorganshire, South Wales; and Mrs. Irene Maude of Chadderton, North Oldham, Lancaster, England. She was also survived by four other nieces, and a nephew living in Florence, Colorado. (80)(82).

Later in 1963, Winifred's estate sold the property on La Farge Avenue to Carmen Ann Romano. (86) This transaction appears to have ended the Davis family's presence in Louisville, Colorado.

Steve and Winifred Davis are both buried in a single plot in the Union Highland Cemetery in Florence, Colorado. A common gravestone marks their joint gravesite, engraved with their names and the years of their births and deaths. (81)

7. Ray Bailey

Raymond ("Ray") Bailey was born in Colorado in 1909. (89)(93)⁸⁸ His father, Rufus Bailey, was born in Wisconsin in 1870. (90)⁸⁹ Rufus's father, Thomas Bailey, was born in England of English parents

1935 Directory for Louisville, p. 96 lists: Davis S B, f miner" and a separate listing for "Davis Winifred f." (These directories are located in the Carnegie Library, Boulder Public Library, Boulder, Colorado.)

⁸⁵ Both the SMI and the newspapers had mistakenly listed Steve Davis' age at his death at 44. (1, p. 44)(4)(5)(18)

⁸⁶ The January 23, 1936 issue of The Louisville Times states that obituaries for the victims of this mine disaster would appear in the Times the following week. (34) However, the Times has not preserved those issues in its archives. The Louisville Historical Museum would like to obtain copies of any issues of The Louisville Times pertaining to the Monarch Mine explosion.

⁸⁷ The 1936: Boulder County Directory, p. 389 lists: "Davis Winifred (wid. Steph) h516 LaFarge av." The 1940: Business and Residence Record, p.399 lists: Davis Winifred (wid. Steph) h1019 LaFarge av." Records of the Carnegie Library.

⁸⁸ The 1920 U.S. Census for Rufus and Alberta Bailey, Ray's parents, in Broomfield, Colorado, lists a son "Theodore" age 10, and a second son, William R., age 8, in the household. Presumably, Raymond Bailey's full

around 1844. Rufus' mother, Jane Bailey, was born in Wisconsin around 1848. Both her parents were also from England. In 1880, Rufus and his family were living in Erie, Colorado. Rufus and his sister, Sarah, age 6, were "attend[ing] school." Two younger siblings, Mary, age 4, and Thomas, age 2, were at home with Jane who was "keep[ing] house," while Thomas, Sr. worked as a bookkeeper. (92)

By the 1920 U.S. Census, taken on January 15, 1920, Rufus Bailey was married to Alberta Bell, born in 1878. They and their two sons, Raymond and William R., both born in Colorado and then ages 10 and 8, respectively, were living in Broomfield, Colorado. Rufus was employed as a farmer "on his own account." (93)

Alberta Bell's father, William N. Bell, was born in Lincolnshire, England, on August 10, 1850, one of 10 children. William N. Bell married Mary Gibson at Kay Thorpe, Lincolnshire in 1871. In 1873, at the age of 23, William and Mary, along with their first child, Fannie, and William's parents, emigrated from England to Iowa. In 1880, the Bell family moved to Louisville, where William worked in the mines. In 1886, William bought a 160 acre farm five and a half miles east of Louisville. Thereafter, he worked his farm in the summer and mined in the winter.⁹⁰ William helped organize the Clarkson Cheese Company in April 1897, and served as its Vice President and Manager. (95)

By the 1930 U.S. Census, Raymond Bailey, then 21 was married to Helen, then 17. Ray and Helen were living in Broomfield with Raymond's parents and brother. Broomfield was then a village in Boulder County with 217 inhabitants, 23 radio sets and no unemployment. (94) Raymond's father, Rufus, died in 1932 and was buried in the Louisville Cemetery. (90)

At 26, Ray Bailey was the youngest miner killed in the Monarch Mine explosion. According to the SMI's report, he had only 2 years experience as a miner and was working as a "day man." (1, at p. 44) He started work as a "cager" at the Monarch Mine on October 1, 1935, less than four months before the blast that took his life. Ray and his family were still living in Broomfield when he was killed on January 20, 1936. (5)(17)

Bailey's funeral was held on Friday afternoon, January 24, 1936, at the Crescent Grange Hall in Broomfield, "and was largely attended." Funeral arrangements were handled by Olinger Mortuary of Denver.⁹¹ The Rev. Monroe of Broomfield officiated. Ray was buried in the Louisville Cemetery. (18)(89)

Ray Bailey was survived by his wife, Helen, then 23, and "three small children," Joan, Shirley, and Arthur. (5) (18) His mother, Alberta Bell Bailey, died in 1939 and is buried in the Louisville

name was Theodore Raymond Bailey, but he was known as Raymond in every record located thereafter, including on his gravestone. (89)(93)

⁸⁹ The 1880 U.S. Census, taken on June 24, 1880, in Erie, Weld County, Colorado, list Rufus' age at that time as 8. (92)

⁹⁰ The subbituminous coal in the Northern Colorado Field would deteriorate quickly if exposed to the atmosphere. Therefore, it couldn't be stored and was mined principally in winter when it was used immediately for heating and energy generation. Most Northern Colorado miners were unemployed in the summer and had to find other work to support themselves and their families. Often they were "carried" on credit by local merchants until the winter when they could catch up on their debts while working as miners. (71, at p. 8)

⁹¹ Olinger Mortuary advises it preserved no record of Bailey's funeral. The Howe Mortuary record is very sketchy. The only charge is for embalming which was charged to Olinger. Howe's Record of Funeral lists Raymond Bailey's date of birth as February 28, 1910, which would make him less than 26 when he died. This date is inconsistent with the year 1909 engraved on Bailey's gravestone. (89)(96)

Cemetery adjacent to the graves of her husband, Rufus, and son, Raymond. (89)(90)(91) Nephews W.B. Bell of Lafayette and N.J. Bell of Broomfield also attended Raymond's funeral. (18)⁹²

8. Oscar Baird

Oscar Lee Baird was born in Tennessee around 1902. Both his parents were also born in Tennessee. His wife, Opal K. was born in Tennessee on July 9, 1906. Both her parents were also born in Tennessee. She was around 17 when she married Oscar, then 21, in 1923. (97)(99)

The Bairds had two children, both born in Kentucky: a son, Oscar, Jr., born around 1927, and a daughter, Billie R., born around 1928. According to the 1930 U.S. Census, taken on April 17, 1930, the Bairds were then living in Harlan County, Kentucky, where Oscar, Sr. was working as a coal miner. Oscar, Sr. was 28 years old; Opal was 24. Their son, Oscar, Jr. was almost 3, and Billie R. was almost 2. (97)

According to newspaper accounts following the Monarch Mine explosion, Oscar Baird and his family came to Colorado from LaFollette, Tennessee, about 15 months prior to the explosion and were living at Rickard's Corner, a mining camp near Broomfield. Oscar, Sr. had been working at the Monarch Mine as a motorman since November, 1935, about 3 months prior to his death. (5)(17) Henning Mortuary, at Opal's request, arranged to ship Oscar, Sr.'s body back to LaFollette for burial. (17)

Opal then apparently returned to Cumberland, Harlan County, Kentucky with her children. She died there on December 13, 1987. (98) Her son, Oscar Baird, Jr., now around 78 years old, still resides there.⁹³

ENDNOTES

- (1) State of Colorado, Inspector of Coal Mines, Twenty-Fourth Annual Report for 1936, Monarch No. 2 Mine, Mine Explosion Report, (Bradford 1937) 41-44 and Diagram of the Explosion Area.
- (2) Jack Carberry, "Rescuers Battle to Reach Miner Believed Alive," Denver Post 21 Jan. 1936: 1.
- (3) John Leach, "Stone Marks Site of County's Worst Mining Disaster," Boulder Sunday Camera 3 Aug. 1975: Focus 8-10.
- (4) "Bodies of Three Men Recovered from Coal Mine," Boulder Daily Camera 21 Jan. 1936: 1 & photo at 6.
- (5) "Mine Explosion is Fatal to Eight Men," Louisville Times 23 Jan. 1936: 1.
- (6) "Mine Owners Are Blamed in Death of Eight," Rocky Mt. News 31 Jan. 1936: 1.
- (7) "At the Mouth of the Pit," Denver Post [?] 20 Jan. 1936: __ (photo).
- (8) "The Monarch Mine Explosion," Louisville Historian Feb. 1996: 3.
- (9) Jennifer Hamilton, "Monarch Mine Victims Honored," Boulder Daily Camera 28 June 2000: 1C.
- (10) Jack Carberry, "Miner's Body Reveals Grim Fight to Escape Fatal Gas," Denver Post 23 Jan. 1936: 1-2 and Photo of Steve Davis at 1.
- (11) "Eight Trapped by Blast in Boulder County Coal Mine," Boulder Daily Camera 20 Jan. 1936: __.
- (12) "Lone Woman Now Waits at Mine for Mate's Body," _____ [?] 23 Jan. 1936: __.
- (13) Carolyn Bower, "Survivor Recalls 1936 Mine Disaster," Boulder Daily Camera 17 Jan. 1965: Focus 3-4.

⁹² Despite a concerted search, the Author has been unable to locate any records concerning Helen Bailey or her 3 children following Ray Bailey's death and funeral. The Louisville Museum welcomes any leads concerning this family.

⁹³ Oscar Baird, Jr., contacted by phone and mail by the author and The Louisville Historical Museum, declined to be interviewed for this study. No information has been located about his sister, Billie R. Baird.

- (14) Silvia Pettem, "Monarch mine marker in final resting place," Boulder Daily Camera 25 July 2000: ____.
- (15) Silvia Pettem, "Coal Miner's monument recalls 1936 _____," Boulder Planet 29 Jan-11 Feb. 1997: ____.
- (16) Greg Avery, "1936 explosion grim reality of coal mining era," Louisville Times/Lafayette News Aug. 1995: Newcomers Guide 26-27.
- (17) "Funeral of Mine Disaster Victims," Boulder Daily Camera 22 Jan. 1936: 8.
- (18) "Double Funeral Here Today For Mine Victims," Boulder Daily Camera 24 Jan. 1936: 8.
- (19) "Eight Testify At Inquest in Mine Disaster," Boulder Daily Camera 30 Jan. 1936: 1.
- (20) "Mine Records Checked for Blast Cause," Rocky Mt. News 24 Jan. 1936: 1.4.
- (21) "Grave in Mine Urged for Victim of Blast," Denver Post 28 Jan. 1936: 1.
- (22) "Wife of Mine Blast Victim Spurns Offer Of \$1,000 to Abandon Search," Boulder Daily Camera 28 Jan. 1936: 1.
- (23) "Miner Buried in Tunnel had \$900 on Person," Denver Post 1 Feb. 1936: 1.
- (24) "Mine Will Be 'Tomb' Of Jaramillo; Search Ends and Workings Sealed," Boulder Daily Camera 7 Feb. 1936: 1.
- (25) "Monument to Honor Man Whose Body Lies in Blast-Torn Mine," Denver Post 15 Feb. 1936: 1.
- (26) "Seventh Body Removed From Monarch Mine," Boulder Daily Camera 23 Jan. 1936: 1.
- (27) D.F. Stackelbeck, "Eight Feared Killed After Explosion Traps Workers in Colorado Coal Mine," Denver Post 20 Jan. 1936: 1.
- (28) Donald T. Stevens, personal interview by William M. Cohen, 29 Oct. 2005.
- (29) Vernon Zurick, personal interview by William M. Cohen, 16 Nov. 2005.
- (30) "Fate of Miners Veiled as Crew Speeds Rescue," Rocky Mt. News 21 Jan. 1936, 1.
- (31) "Report of Explosion, Monarch No. 2 Mine," Received at U.S. Bureau of Mines, 8 June 1936 (including supplemental documents)("Federal Report").
- (32) "Two of Eight Trapped Men Still in Mine," Boulder Daily Camera 22 Jan. 1936: 1.
- (33) Marion Bailey (Wycoff), personal interview by William M. Cohen, 1 Oct. 2005. [?]
- (34) "Deaths (Obituary of Thomas Mitchell Stevens)," Louisville Times, 23 Jan. 1936: 5.
- (35) "U.S. Officials Seek Cause of Mine Disaster," Denver Post 26 Jan. 1936: ____.
- (36) "Another Night and Day of Search Fail to Give Up Body," Boulder Daily Camera 25 Jan. 1936: 1.
- (37) Jaramillo and Monarch Miners' Monument Photos by William M. Cohen, 2006.
- (38) Program, "Frank Varra Park and the Miner's Memorial," 27 June 2000.
- (39) Josephine Najera and Barbara Barela, personal interview, by William M. Cohen, 31 Oct. 2005.
- (40) "Monarch Coal Mine Abandoned As 'Worked Out,'" _____, 19 May 1947: ____.
- (41) "Mine Company Held Negligent in Dust Hazard," Boulder Daily Camera 31 Jan. 1936: 1.
- (42) "Mine Owners Are Charged in Fatal Explosion," Denver Post 31 Jan. 1936: ____.
- (43) "State Will Start Investigation of Sixty Coal Mines," Boulder Daily Camera 15 Feb. 1936: 1.
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