## UNITED STATES OF AMERICA

## NATIONAL TRANSPORTATION SAFETY BOARD

Interview of: PETE STOKES

Alagasco Center for Energy Technology Birmingham, Alabama

Saturday, December 21, 2013

The above-captioned matter convened, pursuant to notice.

BEFORE: MATTHEW NICHOLSON Investigator-in-Charge

## **APPEARANCES:**

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I N D E X

ITEM	INDEX	PAGE
Interview of Pete Sto	okes:	
By Mr. Nicl	nolson	5
By Mr. Chha	atre	16
By Mr. Nicl	nolson	16
By Mr. Chha	atre	17
By Mr. Nicl	nolson	17
By Mr. Chha	atre	23
By Mr. Jone	es	36
By Mr. Bell	L	37
By Mr. Chha	atre	42

<u>INTERVIEW</u>
MR. NICHOLSON: Good afternoon. Today is Saturday,
December 21st, 2013. My name is Matthew Nicholson, and I am an
investigator with the National Transportation Safety Board in
Washington, D.C. We are currently in Birmingham, Alabama, at
Alagasco Center for Energy Technology, investigating the
Birmingham, Alabama natural gas leak with ignition which occurred
on December 17, 2013. This is case number DCA-14-MP-001.
We are here today to interview Pete Stokes.
For the record, Pete, please state your first and last
name with spelling.
MR. STOKES: Pete Stokes, P-e-t-e, S-t-o-k-e-s.
MR. NICHOLSON: Thank you. And please state for the
record your title and employer and a business e-mail or phone
number.
MR. STOKES: Title is a crewman assistant special. E-
mail, I really don't know my work e-mail.
MR. NICHOLSON: That's fine.
MR. STOKES: I guess a phone number would be radio room
number, **PII** the one I use. I don't know that.
MR. NICHOLSON: Okay. Is that a work number, did you
MR. STOKES: Yeah, I mean, that contacts the radio room.
MR. NICHOLSON: That's fine. And you are an employee
of
MR. STOKES: Of Alagasco.

1 MR. NICHOLSON: Okay. Terrific. And Pete, you're 2 allowed to have one other person of your choosing to be present 3 for these interviews. Please indicate for the record who you have 4 chosen to be your representative. 5 MR. STOKES: Mike Bell. 6 MR. NICHOLSON: Mike Bell. Okay. We'll go around the 7 room, introduce ourselves for the record. My name is Matthew Nicholson, NTSB investigator. 8 9 MR. CHHATRE: Ravi Chhatre, NTSB accident investigator. 10 MR. BELL: Mike Bell for Pete Stokes. 11 MR. WILLIAMS: Willie Williams, Fire Investigations, 12 Birmingham. 13 MR. LUPO: Don -- sorry. Don Lupo, I work for the 14 mayor. 15 MR. GARDNER: Bob Gardner, Alabama Gas. 16 MR. BLACKWOOD: Keith Blackwood, Alabama Public Service 17 Commission. 18 MR. JONES: Wallace Jones, Alabama Public Service 19 Commission. 20 INTERVIEW OF PETE STOKES 21 BY MR. NICHOLSON: 22 Okay, Pete, just before we begin, maybe you could give Q. 23 us a little background about when you started at Alagasco, what 24 positions you've held up till now. 25 Well, I was -- started August of 2008. I've worked in Α.

construction the whole duration of being here. I've been a
 crewman and moved up to a crewman assistant special, which is one
 step above a crewman.

4 Q. Okay. So you're currently a crewman --

5 A. Assistant specialist.

Q. Assistant specialist, okay. And we're here to investigate a December 17th accident in the Gate City area, and as we understand it, you were part of -- you were on a team with Mike Donaldson. Is that correct?

10 A. That's correct. That's my journeyman I work with.

11 Q. And is it just the two of you in this crew?

12 A. Yes, sir.

Q. Okay. And if you would, can you just kind of take us back to when you were first notified of the accident, through the entire event as you recall it?

A. Well, we was in South -- on South Shades Crest and received the call of a explosion in Gate City, and we went en route there and probably got on site roughly, you know, 3:30-ish. The fire department was on scene, police officers. Another co-worker was there, Max Morrison. He was already there on scene, and he kind of directed us where we needed to go.

22

Q. Where did he direct you to?

A. The alleyway between the two buildings. Because when we pulled up, the fire department had Joppa Avenue blocked. So we had to back up and go down in the back way, which we would have

1 came --

2 Q. So we got a sketch up here.

3 A. Um-hum.

4 Q. The alleyway you're calling is --

5 A. We was actually parked right here. Here's the alleyway 6 right here, and we had to park right there.

Q. Okay. So south of the units. Okay. Okay, what did you8 do after that, after you're parked?

9 A. After that, we got the pipehorn and tried pulling 10 prints. Our computer was down and we had to get on Max Morrison's 11 computer. Pulled prints and started trying to locate that service 12 line that the -- was on fire, the riser that was on fire, so we 13 can dig it up and cut and cap it, and get the gas off for the fire 14 department.

15 Q. Okay.

A. We probably tried locating for about 30 minutes or so. We thought we had a good signal, and then we tried digging down on it, and it wasn't in there. So we just continuing trying to locate the service.

20 Q. Okay. So what was the problem you were having locating 21 the service?

22 A. Well, the --

23 Q. Pipehorn should pick it up, right?

A. Pipehorn should pick it up, but the power line was down right beside it, which throws your signal off, because you have,

1 you know, wires on the ground and --

2	Q.	Okay.
3	Α.	that's what that Pipehorn picks up is metal, and that
4	wire, the	power line will throw you off. And the way that service
5	actually	ran from that building, well, there's really you could
6	looked up	and locate it, but you really needed the hook up to the
7	riser and	which we couldn't because it was, you know, on fire.
8	So	
9	Q.	Oh, you could clamp your
10	Α.	Your box to the
11	Q.	The pipe locator, you could clamp it to that?
12	Α.	Um-hum.
13	Q.	Okay.
14	Α.	And it gives a better signal, but trying to do what we
15	call swee	ping, which is one person holds the receiver and the
16	other per	son's, you know, got the pipehorn and you're walking,
17	trying to	sweep for a piece of pipe in the ground, and it would go
18	off, but	it like I said, just all them wires and debris, it can
19	throw it	off pretty easily.
20	Q.	When it went off, did you start digging there?
21	Α.	Right.
22	Q.	You thought it was a positive
23	Α.	We marked it right there and, I mean, it was perfectly
24	in line w	ith the meter, because usually typically what happens is
25	that serv	ice runs pretty much straight to the meter from the main.

- 1 Q. Um-hum.

2	Α.	So we dug down right there and we couldn't it wasn't
3	in there.	So we continued doing that, and then finally they made
4	a decisio	n just to valve get the fire department to put the
5	fire out	and just valve the service cock off at the riser.
6	Q.	That was you said you spent about 30 minutes
7	Α.	Right, well
8	Q.	trying to locate this?
9	Α.	Well, that was, yeah, the initial locator probably took
10	about 30	minutes, and then time we dug and
11	Q.	Oh, okay.
12	Α.	try locating again, it must have been an hour and a
13	half, two	hours. But the initial us trying to find it the very
14	first tim	e.
15	Q.	So you think it was a couple hours
16	Α.	Right.
17	Q.	before? And after a couple hours, you said that's
18	when the	decision was made to shut it off
19	Α.	Just to shut it off.
20	Q.	at the riser.
21	Α.	Yeah, that was probably right before daylight, probably
22	5:30-ish,	5:15, something like that.
23	Q.	Who made that decision?
24	Α.	I believe David Gallagher made the decision.
25	Q.	Okay. Okay, so what happened after that?

A. Well, after that, we continued looking for the service and then about that time, that's when the fire department came and got me and Mike and -- about finding a man and woman in the corner and they wanted us to use the backhoe to dig some bricks out from around them so they could get to him.

6 Q. Okay.

A. So I worked on that. Me and Mike with the -- using the
backhoe worked on moving debris for them probably till, you know,
I don't know, an hour. So it was after daylight when we got done
with that.

11 Q. Okay.

A. Then we went back over there by the tree and barred, put some bar holes down and started looking for that leak. People, you know, they said they were smelling gas.

15 Q. Okay. So did you ever expose the service line?

16 A. Yes, later.

17 Q. You did?

A. Yeah. I was actually the one that dug that service up to kill it, and me and Mike, you know, cut the cap. But it was --20 I know it was after --

21 Q. But that was after you did the rescue --

22 A. Right, that was after all that.

23 Q. And it was after the bell hole test you did?

A. Right.

25 Q. So let's go back to the bell hole test. Can you go to

1 the board maybe and show us how you -- I think Mike was up there 2 previously detailing some of his bar hole tests. Can you kind of 3 walk us through where you took readings?

A. Right. After we helped the fire department, we came back over here. The supervisor noticed some -- the ground water bubbling.

7 UNIDENTIFIED SPEAKER: Hold on a second. Let me go back
8 a little bit (indiscernible) so it won't confuse everybody.

9 MR. STOKES: But like I said, a supervisor noticed water 10 bubbling from all the fire department and --

11 BY MR. NICHOLSON:

12 Q. I'm sorry. Who noticed water bubbling?

13 A. Rob Wall, one of our supervisors.

14 Q. Rob Wall?

15 A. Um-hum.

16 Q. Okay.

A. And that's what got us down there to -- by the tree. And like he said, when my crewmen got it, we barred from behind the curb all the way past the tree and there was already bar holes in the street that somebody had -- that we knocked back down, and there was a -- I guess that's a patch he had up here.

22 Q. Okay.

23 A. That was there.

Q. So where did you bar? You said you just went back and read what was already bar holed?

1	Α.	Right, me and Mike did. We put
2	Q.	Oh, you were with Mike when he was doing that?
3	Α.	Right. I was working with Mike, yeah, so
4	Q.	Oh, okay.
5	Α.	Pretty much everything I do, we did together, you know.
6	Q.	Did you have to move anything before you did these bar
7	holes?	
8	Α.	No.
9	Q.	Was there anything on top of your line, debris?
10	Α.	I think a few bricks, nothing
11	Q.	A few bricks, nothing major.
12	Α.	nothing major, no.
13	Q.	Okay. So can you walk us through again? Where did you
14	start?	
15	Α.	Probably about where he's got it, probably about
16	that's the	e meter probably, you know, midways here, all the way
17	back past	the intersection, you know.
18	Q.	Okay.
19	Α.	Back the other side of on the other side of the curb.
20	Q.	Well, I don't think you talked about the other side of
21	the curb.	What did you get a were you getting readings?
22	Α.	No, it was like
23	Q.	Nothing?
24	Α.	hardly I mean, like minute.
25	Q.	So the highest readings were which way?

left side of the tree. 2 3 Ο. Okav. And we end up barring this way and the readings. 4 Α. These started kind of going away and this kind of maintained that 5 6 reading. And like I said, the bubbles, you know, the water was --7 Where was it maintaining the reading? I'm sorry. I Ο. 8 don't --9 Α. Right here. Right by where the break was at. 10 That was maintaining your 95? Q. 11 Α. Right. 12 Q. Okay. This kind of --13 Α. 14 So you're really 95 from the street --Ο. 15 Α. Right, uh-huh. 16 -- all the way past the tree --Q. 17 Α. To about right here, and then all this was LEL readings. 18 Ο. Okay. 19 And then like right here, there's a whole patch out Α. there, and they might have already dug it up, but that was where 20 21 the gas stopped again. All this was LEL on this side of the curb. 22 I mean, that wasn't --23 Q. Okay. 24 Α. -- nothing --25 Q. Okay. And is --

Was about 95 percent gas, which was just this side, the

1

Α.

1 Like, we dug that break up, dug the leak up after we Α. 2 pinpointed it and it was broke right around -- a little crack around the bottom side. 3 Are you -- so after doing that, you dug up the pipe? 4 Ο. 5 6 Q. Okay. 7 8 And what -- can you describe then what you said, what it Q. 9 looked like? 10 Well, like I said, the break was around the bottom side Α. 11 of the main and, you know --12 Q. Maybe --13 16 Okay. You bubble tested it or how did you --Q. 17 Α. Well, we just started digging --18 Q. Okay. 19 -- and just went down the leak from the readings and Α. 20 the, you know, the --21 Ο. Right. 22 Α. -- bubbles. And when we dug it up, the gas, you know, 23 dries out soil. 24 Q. Right. 25 Takes the oxygen and moisture out, so it was a little Α.

1 dry around it. But usually if a main has been cracked like that 2 for several days even, usually it makes what we call a frost ball 3 -- it gets real hard around the pipe -- and that wasn't the case 4 here. So it seemed to me like it hadn't been leaking that long --5 Q. Okay. 6 Α. -- you know, just off of experience. Because usually, 7 like I said, it dries that soil out, and if it's been leaking for a couple of days or even weeks, it would harden. 8 9 Ο. Do you have to bust that up with a tool? 10 Yeah, every time you try to clean it to put a repair Α. 11 clamp on it --12 Q. Yeah. 13 -- yeah, I mean, it's just -- it's hard. You have to Α. 14 take hammers and --Oh, it's that hard? 15 Ο. 16 Α. Yeah. 17 Q. Okay. 18 It gets hard, but that's after, like I said, a week, you Α. 19 know, several weeks. Okay. Did you put the clamp on? 20 Q. 21 Α. No, I did not. 22 Q. Oh, okay. 23 Like I said, I was above the hole working, you know, Α. 24 helping. Another employee put the clamp on. 25 Well, then how did you see -- if you're above the hole Q.

1 and it's on the bottom, how did you see it? 2 I just -- that's what they found. That's what -- they Α. 3 was talking. I was --4 Ο. Oh, so someone else told you? 5 Yeah, I was standing there talking to the --Α. 6 Ο. Oh, okay. 7 -- the guy making the repair. Α. Okay. And he could see it. He --8 Q. 9 Α. Right. 10 -- got down, I guess, and looked under the pipe? Q. 11 Α. Right. 12 Q. Okay. Okay. So you're saying it's a crack that ran 13 circumferentially --14 Α. Right. 15 Q. -- on the bottom? Okay. 16 MR. CHHATRE: So you were watching him? 17 MR. STOKES: Right, we was all standing, you know, 18 standing on the bank while he was making the repair. 19 MR. CHHATRE: Do you know what he used to clean the 20 pipe? 21 MR. STOKES: A hammer and files. 22 MR. CHHATRE: If it is soft, why is he using a hammer? 23 MR. STOKES: Just to get the scale off the pipe, not 24 necessarily the dirt. Just the scale off the pipe. 25 BY MR. NICHOLSON:

1 Q. And a file, mill file?

2 A. Right, it's a rough file --

3 Q. Okay.

A. -- just to clean the mains. I mean there's -- you know, the main's in the ground. There's scale and stuff on it. Just to smooth it off so that rubber -- wrap around.

7 Q. Okay. All right.

8 UNIDENTIFIED SPEAKER: It's normal old cast iron. After 9 it's been in the ground for a while, even if you don't have the 10 dirt and stuff around it, it's still got some kind of coating on 11 it that you have to get off and get it smoothed down so that that 12 clamp will seal correctly, because if you don't it will not seal 13 right.

14 MR. CHHATRE: Yeah, what I'm asking is if they had used 15 a file on the crack? It looks like they did.

MR. STOKES: Yeah, we cleaned -- that's how we repair.
We got to clean it before we can -- yeah.

18 BY MR. NICHOLSON:

19 Q. Okay. After that, what -- anything else that -20 A. Well, that's when we kind of start working on the
21 service.

22 Q. Okay.

A. During all this, we had a couple of other people stilltrying to locate.

25 Q. Still hadn't found it.

1 Right, we still hadn't found where it came all the way Α. 2 down. I said, usually, typically that runs straight out to the main line. 3 4 Ο. So, re we still chronological? You've dug the main at 5 this point --6 Α. Right. This is --7 -- and found the crack. Ο. 8 Α. This is dug up. At the same time we're doing all 9 this --Someone else is --10 Q. 11 -- someone else is --Α. 12 Q. -- still trying to find --13 Α. Right. 14 Q. Wow. 15 Α. And they came up to us and said they got it marked and 16 then me and Mike went over there and started working on it. How did they finally mark it? Did they have to tie off 17 Q. 18 like --19 Yes, they hooked up to the meters. Α. 20 Q. Okay. 21 Α. And like I said, usually that's the best way to find one because it gives you a good signal. But they -- that's how they 22 23 found it at the --24 Ο. Who's they? Who's the person that actually located it? 25 That I couldn't --Α.

1 Q. Okay.

2	Α.	I	don't	
---	----	---	-------	--

3 Q. Well, you said you knew that they tied off. So --That's how they found it. 4 Α. Right. 5 But you don't know who that person was? Q. 6 Α. I don't know who did it. 7 Okay. How do you know they tied off if you don't know Q. who the person was? 8 9 Α. Because the box was hooked up. 10 Oh, okay. You said that you saw it. Q. 11 I mean, I saw the box. Α. 12 Q. I see. 13 Α. Yeah. 14 I got you. Okay. Ο. 15 Α. So, I mean that's -- like I say, that's the best way to 16 find the service --17 Ο. Sure. 18 Α. -- when you're having trouble, connect your box to the 19 meter. And, I mean, they was right on it and dug it up, killed I even walked back up here and valved that service valve back 20 it. 21 on, make sure the gas was off of it. 22 Q. Okay. 23 So we knew that was --Α. 24 Q. You found the right one, yeah.

A. -- the right one, correct. So, I mean, that's pretty

1 much it. And then after that, the same supervisor, Rob Wall that 2 I mentioned earlier, we started doing that survey, you know, 3 putting several holes down.

Q. So you did, you went back and did the bar holes up -- to 5 the south?

6 A. Right.

7 Q. Okay.

I did -- I had -- they told us to go back in because we 8 Α. 9 had been out there all night. So, but I put down probably 5 to 10 10, you know, just random spots that the supervisor was painting 11 when he was going behind him, and the only reason I can remember, 12 because the supervisor asked me yesterday about it, the only one I 13 can remember was 26 percent gas and it was probably right here, 14 probably about -- you know, you got that side wall, probably about 15 10, 15 foot midways the building.

16 MR. CHHATRE: So they're dropping from 95 to 26? 17 MR. STOKES: Right. That was 26 when we was going 18 through there.

MR. NICHOLSON: I'm sorry. Can you write it up there?
Was it 26 LEL?

21 MR. STOKES: Oh, gas.

22 MR. CHHATRE: No, no, percent gas.

23 MR. NICHOLSON: Okay.

24 MR. STOKES: But like I said, they did some more -- I 25 mean, they went all the way around it, but I wasn't involved in

1 that.

2 MR. NICHOLSON: Right. Okay. MR. STOKES: So --3 4 UNIDENTIFIED SPEAKER: And how far off did you say it 5 was midway --6 MR. STOKES: I don't know. It was probably midway 7 between the building --8 UNIDENTIFIED SPEAKER: Between the building and the 9 sidewalk? 10 MR. STOKES: -- and sidewalk. Yes, sir. And now, like 11 I say, I don't know what all the other readings were, but --12 MR. CHHATRE: Sure. 13 MR. STOKES: -- that's -- I remember it being about 26 14 I remember telling him. And after that, we went home. percent. 15 I mean, that was --BY MR. NICHOLSON: 16 17 Q. Who else were taking readings at the time? 18 Α. David Corbett, which --19 Q. Okay. 20 -- he's out there --Α. 21 Q. Right. 22 -- and Rob Wall. Α. 23 Okay. Q. 24 Α. Which he's also out there. But I don't know what else 25 they got. I don't know.

1 Q. Okay. You never talked to him and compared notes or --2 Α. No. 3 Ο. Okay. 4 Ο. No, Rob was with us the whole time we was doing it, so -- and he was the supervisor that was kind of over that little 5 6 part, so --7 UNIDENTIFIED SPEAKER: Did he take the readings down, do 8 you know? 9 MR. STOKES: How -- I want to say -- I mean, he was 10 writing on a pad. I want to say he did, but --BY MR. NICHOLSON: 11 12 Q. Who was writing on the pad? Rob? 13 Α. Rob. 14 Q. Okay. 15 Α. So I don't know if he -- I think he said he ended up 16 giving it to somebody, but I don't know. He's out there. He would know more about it than I would, but --17 18 MR. GARDNER: We've given you some of the readings. Is 19 that what we had, those note pages you showed me yesterday? 20 UNIDENTIFIED SPEAKER: Yes. 21 MR. STOKES: Yeah, it was on a little note --22 MR. GARDNER: A note pad, I guess. 23 MR. STOKES: But that's all -- I mean, that's -- after 24 that, I went home and didn't return until the next -- that night, 25 so --

BY MR. NICHOLSON: 1 2 Were you surprised to see a 26 percent gas reading that Q. far from the main? 3 I mean --4 Α. 5 Did you question it? Q. 6 Α. Not really, I mean. 7 Okay. It's not unusual? You've done this before? Q. You've --8 9 Α. I mean, yeah, you can get readings, I mean, ever -- it's 10 when you bar test and they just --11 Okay. Q. 12 Α. I don't really --13 Didn't stop to really give it any thought? Ο. 14 Right. Like I said, I wasn't involved in that whole Α. 15 survey the whole time, so --16 Ο. Okay. 17 MR. NICHOLSON: You got anything else, Ravi? 18 MR. CHHATRE: Yeah, for the record, this is Ravi. 19 BY MR. CHHATRE: When you did the sketch, how did you -- you said you 20 Q. 21 were involved in isolating that service? 22 Right. Α. 23 How do you do that? Can you explain it? Q. 24 What we'll do, we'll hook -- we'll clean it with the Α. 25 file and stuff because it's going to have crud on it too, and what

we'll do is we'll hook cables up to it and kind of isolate that 1 piece we're wanting to cut. We'll cut it with some four-wheel 2 3 Ridgid cutters, plug it with a -- what we call a rubber expansion 4 plug you stick in there and it's got a little handle and it 5 expands inside the pipe and seals it, you know, stops the gas. 6 Ο. Excuse me. Quite late in the day, I guess. No, I don't 7 understand. So if you have pipe, so how do you cut the pipe? Do 8 you do that when the line was still --9 Α. Right. It's still ---- alive? 10 Q. 11 -- it's still live gas. Α. 12 Q. Right. Okay. 13 Α. Let's say you had the service line. 14 Right. Q. We're going to hook these cables, we call electronics 15 Α. 16 cables. 17 Q. Okay. 18 Α. You're going to hook it. 19 Okay. Q. Then you're going to make your cut with some 20 All right. Α. 21 pipe, you know, four-wheel cutters --22 Q. Okay. 23 -- which is going to make that piece go away. Α. 24 Q. Okay. 25 All right. And then you're going to put what we call a Α.

1 NORMAC coupling on it.

2	MR. NICHOLSON: It's blowing gas right now?
3	MR. STOKES: Right. It's blowing gas. We plugged it.
4	MR. NICHOLSON: Okay.
5	MR. STOKES: You've got a expansion plug I was telling
6	you goes inside the pipe and expands and it seals it off. So now
7	your gas is off.
8	MR. CHHATRE: Okay.
9	MR. STOKES: And then you put to make it a permanent
10	cap, you put a NORMAC coupling on it with a bullhead.
11	MR. CHHATRE: Okay. So
12	MR. STOKES: We put it on both ends.
13	BY MR. CHHATRE:
14	Q. So you make both those two cuts simultaneously or one at
15	a time?
16	A. You cut one and you move your cutter and cut the other
17	one.
18	Q. One, okay.
19	A. Usually how we do it.
20	Q. So you make that cut, the gas is flowing from that.
21	Then you make another cut.
22	A. Right, but it's not blowing bad. I mean, when you make
23	that first cut, it's blowing just out that little bitty
24	Q. Right. Right.
25	A cut. Then you go and make another one, then you get

1 that piece, the whole piece out of the way, and then you -- you 2 know, you go with your expansion plug to stop the gas. 3 Ο. Okay. It's a matter of 30 -- maybe 30 seconds to a minute --4 Α. 5 Q. Okay. 6 Α. -- the whole process. 7 Oh, it's that short? Ο. Yeah. To kill a service. I mean, that's --8 Α. 9 Ο. Now, how do you protect yourself while you are surveying 10 the gas? 11 Α. You have your mask, breathing mask. We have respirators 12 and fire suits and fire hoods. They provide us with everything. 13 Ο. Okay. I have a couple of follow-up on these questions, 14 Are you OQ qualified in what you do? I think. 15 Α. Yes. 16 And what kind of training you received since 2008? Q. 17 Α. Several hands on, several classroom setting type 18 training. 19 Okay. Can you describe me a few classes that qualified Ο. you to do the work you are doing? 20 21 Α. I mean, we go to fire school once a year --22 Q. Okay. 23 -- which trains us on, you know, situations like that. Α. 24 We've been to GMI classes, you know, that which detects the gas in 25 the soil.

And what does GMI stand for? 1 Q. 2 I believe it's gastric measurement instrument, I think. Α. 3 Ο. Oh, gastric measurement instrument, okay. Okay. And if 4 you want to add any formal education to this? Like a high school, 5 college, any other --6 Α. Oh, okay. I mean, high school. 7 -- any other classes outside -- any other classes Ο. outside the company? These are other classes, company --8 9 Α. Oh, that relate to -- no. 10 No, okay. Okay. Q. 11 And I'm sure there's several classes I've taken that Α. 12 just --13 Ο. Well, that's okay. We can get that record later. 14 Yeah, okay. Α. 15 Q. I just want to make sure. Okay. 16 Did you and -- was it Max or Pete or who you were 17 with --18 Α. Mike. I work with Mike. 19 Yeah, okay. Do you guys discuss about cutting the Q. I mean, was -- you were there almost 2 hours by now, 20 valves? 21 right --22 Right. Α. 23 -- before you cut it? Did you two discuss that maybe it Q. 24 will be easier just to cut the main line valve someplace and shut 25 the gas flow off?

1 Right, that was discussed with -- as a matter of fact, Α. 2 David Gallagher asked me to go pull prints again and to check and look for the main valves, that's --3 And what time would that be? 4 Ο. 5 Probably about a hour in -- they got there at 3. I say Α. 6 4:30-ish --7 Q. Okay. 8 Α. -- 4:45. 9 Ο. And then what did you do? 10 I went and pulled prints and there was two valves Α. 11 that -- there. 12 Q. Do you know -- do you recall where they were compared to 13 the actual location? They were in the same vicinity or like 10 14 miles apart or --15 Α. No, there was one -- Kimberly. I want to say Kimberly. 16 Q. Okay. 17 Α. And there was one on Georgia Road, but I don't remember, 18 I don't remember the intersection of the roads. 19 That's okay. But --Q. Okay. 20 There's two. Α. 21 Ο. -- if you were to estimate, like how many miles apart? I don't know, a mile maybe. 22 Α. 23 Okay. Q. 24 Α. I think they would've --25 Okay. And then -- so after you showed the plans to Q.

1

David, what happened then?

2 Α. Well, that's when -- by that time, when I was pulling 3 prints and all that, they kind of had decided to go shut the service cock off at the riser --4 5 Q. Okay. 6 Α. -- instead of shutting, shutting the valves off. 7 But by that time the fire was put out for you guys to Ο. shut the thing off? 8 9 Α. Well, right after that. Right after I talked to David 10 about that. 11 Okay. You said no and --Q. 12 UNIDENTIFIED SPEAKER: Understand what he's talking The fire's blown out with a hose --13 about? 14 MR. CHHATRE: Right, and that's what I meant, yeah. 15 UNIDENTIFIED SPEAKER: -- and then they approach it. 16 BY MR. CHHATRE: 17 Q. Yep, that's what I meant. For somebody to go and turn 18 the gas off. 19 That decision was made. Α. Right. 20 Do you recall when those valves were --Q. 21 Α. Talking about the one fire? 22 No, I mean, near the meter or riser, that's where the Q. 23 gas was cut off to the building, right? 24 Α. Right. 25 Do you recall when that was done? Q.

A. Right before daylight, 5- -- about 5:30, about 2 hours
 after on the scene.

3 Ο. Okay. UNIDENTIFIED SPEAKER: Just for a timeline standpoint, I 4 was thinking it was 6:14. I thought --5 6 UNIDENTIFIED SPEAKER: That's what I had. 7 UNIDENTIFIED SPEAKER: Yeah. 8 MR. STOKES: Well, it was -- like I said, it was right 9 at daylight. I mean, I don't --10 UNIDENTIFIED SPEAKER: Okay. Yeah, I just didn't want 11 you to get too committed to the 5:30 time frame. 12 MR. CHHATRE: No, no, no. I mean, he is --UNIDENTIFIED SPEAKER: It's documented somewhere. 13 14 MR. CHHATRE: No. 15 UNIDENTIFIED SPEAKER: It's 6:14. 16 UNIDENTIFIED SPEAKER: That's right, that's right. 17 That's consistent with what we gave you. 18 MR. CHHATRE: Yeah. 19 UNIDENTIFIED SPEAKER: That's right. 6:15. 20 MR. STOKES: I just knew it was around daylight as I 21 remember it. 22 MR. CHHATRE: Well, he kind of matches with so far, you 23 know, the arrival time and then the thing was cut off. 24 BY MR. CHHATRE: 25 Now have you seen the gas leaks in the past on the gas Q.

1 line?

2 Have I seen some? Yes. Α. 3 Q. And were any in this particular neighborhood, in the 4 accident neighborhood? 5 Α. No. I've never -- I can't recall working on a gas leak 6 in there. 7 Q. Okay. 8 I'm not saying I haven't, but --Α. 9 Ο. No. I understand. What other locations you say you have 10 seen gas leaks? 11 Α. I just go so many of them. 12 Q. Oh, okay. So --I mean, it just varies. 13 Α. 14 Okay. Quite a few, I mean --Ο. 15 Α. Right. 16 I mean, I'm not looking for a number, but just -- just Q. one or two or kind of numerous and --17 On the cast iron? 18 Α. 19 No, not cast iron, in general any, but particularly cast Q. 20 iron. 21 Α. I mean, several of these. That's what I do for a 22 living --23 Q. Okay. 24 Α. -- work on leaks. 25 Now do you recall any of those were with Class 1 or Q.

1 Grade 1, Grade 2, or they're all kind of Grade 3 type leaks?

2 A. I mean --

3 UNIDENTIFIED SPEAKER: And don't have just two grades in 4 my (indiscernible) remember --

5 MR. CHHATRE: Three.

6 UNIDENTIFIED SPEAKER: Oh, there's three, okay.

7 MR. CHHATRE: Yeah.

8 MR. STOKES: But I mean, normally, I mean, they're all 9 the above. I mean, they're Grade 1's, 2, and 3.

10 MR. CHHATRE: Okay.

11 MR. STOKES: I could work on a Grade 1 that morning and 12 a Grade 2 that evening.

13 MR. CHHATRE: I see, okay.

14 BY MR. CHHATRE:

Q. So the reason I was asking is, you said, hard ball kind of structure form.

17 A. Right.

18 Q. And you can still -- the gas still comes out --

19 A. Right. You --

20 Q. -- of the ball, right?

21 A. Right. And you just --

22 Q. The gas just (indiscernible) --

A. I said that gas over a period of time just hardens up the soil around it and dries it out, and that's why when we got down to that, it didn't look like it had been leaking, you know,

1 but maybe a few hours.

2	Q.	Now was that looked like wet because of water? I
3	mean it's	all coated with water and gunk, right? I mean
4	Α.	Right.
5	Q.	that's how you're seeing the bubbles?
6	Α.	Right, when we was digging, yeah. I'm sorry.
7	Q.	So how would the water impact what you're seeing?
8	Α.	Because when you dig down so far, water hadn't got
9	Q.	That's what I'm saying. That's what I
10	Α.	Yeah, it's still dry soil.
11	Q.	It's still dry soil.
12	Α.	Right.
13	Q.	Okay. That's what I looking at. Okay. But the gas was
14	still com	ing out of that bubble?
15	Α.	Right.
16	Q.	When you see a bubble is hard a hard ball is formed,
17	when you	go and look at your Class 1, Class 2, Class 3 leaks, when
18	you go to	fix them, is the gas still coming out of that hard ball
19	or that g	as kind of stops at that time?
20	Α.	No, it's still leaking.
21	Q.	It's still leaking.
22	Α.	We have, you know, leaks though that we've
23	Q.	And you can still see it?
24	Α.	And you still it's still coming out.
25	Q.	Okay. So it's not really a compact solid that stops the

1 qas?

2 No, it won't stop it, no. Α. 3 Ο. It's just hard for you to knock it off? 4 Α. Right. 5 Q. Okay. 6 Α. And like I said, that particular break right there 7 didn't look like that, to me or several other people. 8 It didn't -- right. It didn't look a hard --Q. 9 Α. Right. It didn't look like it had been there for a 10 while. 11 A while, okay. Now did you guys have any meeting, Q. formal/informal discussion after the accident as to like huddle-up 12 13

kind of thing or coffee lines or formal thing, hey, look, I mean, 14 this is what happened; this is what we did? Did we do everything 15 right? Could we have improved something?

16 If they have, I haven't been involved in it. Α. 17 Q. Okay. So you had no discussion with anybody as to how 18 things went?

19 Α. No, not like as a -- no.

20 Q. Any discussion about what caused the leak?

21 Α. Not the -- no.

22 No discussion on that? I mean, that's fine. I mean, I Q. just heard of some --23

24 Α. No, I mean, I'm trying to think, but I don't --25 Okay. Now have you gone to the accident scene again Q.

1

after you left that day?

2 Α. Yes. And what was that for? 3 Ο. We had to return -- I believe you all cut out a section 4 Α. 5 of main, was it yesterday, Friday? Yeah, yesterday. 6 Q. Okay. 7 We -- early Friday morning, Thursday night, I mean, Α. that's our shift --8 9 Q. Okay. -- 11 to 7, we came in and dug the two bell holes. 10 Α. 11 Q. Okay. 12 Α. You all had that one hole exposed with the leak. 13 Ο. Right. Right. Okay. 14 We dug --Α. 15 Q. The one further away from the leak site? 16 Right by that dumpster. Α. 17 Q. Right. 18 Α. Right, that's where we --19 Okay. That's where you guys were working? Q. 20 Α. Right. 21 Q. Okay. 22 And we dug the two holes that you all -- so you all can Α. 23 cut it out Friday. 24 Q. Yep, yep. Okay. Now do you think we got everything 25 from you? Do you have anything that you think might help us in

1 this investigation besides what we asked you? I mean, this is a 2 two-way street. I mean, if you have something that we -- just 3 because we did not ask, I mean, you know, if you have something 4 that you think might add, might help us? 5 I mean, no, I mean, I pretty much -- I mean, that Α. 6 drawing's pretty accurate. 7 Ο. Okay. Okay. 8 Like I said, I pretty much went through my step by step Α. 9 that I was involved --10 Q. Okay. 11 -- I was involved in, so --Α. 12 Q. Okay. Thank you very much. I just --13 UNIDENTIFIED SPEAKER: I don't have anything. 14 UNIDENTIFIED SPEAKER: I'm good. 15 MR. JONES: This is Wallace Jones. 16 BY MR. JONES: 17 Q. I've just got one question for you if you know, Pete. 18 You were there when they were excavating at the leak, correct? 19 Α. Correct. Okay. Did you all see or did you all have to pull out 20 Q. 21 any tree roots around the main or close to the main that you know 22 of? 23 I believe there was a tree root on the main. Α. 24 Q. Okay. Was it around it or just very close to it or --25 If I had to say -- I really don't remember for sure, but Α.

1 it was -- I mean, it was fairly close, if not right at it. But, I mean, like I say, I don't -- this is, I guess, a personal opinion, 2 but I don't think that was what caused the break, the tree root 3 or -- because like I said, it just didn't seem like it was that 4 old of a -- I mean, I've dug up several leaks before, and that 5 6 particular one just didn't -- to be that much of a break, it 7 should have been a lot more frost in the ground, a lot more dry dirt than what there was, and it was just -- it didn't seem like 8 9 it to me, no. I mean, I'm not -- that's just a personal opinion, 10 I quess.

11

MR. NICHOLSON: Mike?

12 BY MR. BELL:

Q. When you mentioned earlier you thought it had been leaking for a short period of time, just -- you talking about a few hours, a few days?

16 Α. I'd say a few hours. I mean, even in a few days with 17 that kind of break, I mean, you know, you're talking about half --18 you know, a crack about halfway around that piece of pipe. I 19 mean, a few days it would have been real dry soil around it, but a few hours, it wouldn't have had time to -- I mean, it was --20 21 there's dry soil around it. I mean the dirt was dry, but not to the extent of, hey, this leak's been blowing for a while. I mean, 22 23 it was more of a this has been blowing for a couple of hours, just 24 dried out the dirt right around the crack. So, I mean, it don't 25 take long to dry the soil out, but I mean it just don't seem like

1 it was a broke main type situation that's been there leaking for a day, 2 day, 3 days or longer. I mean, it just seemed like it 2 3 was -- it seemed -- because when we pulled up on site, me and Mike 4 -- I mean I walked -- me and Mike both have walked all around that tree, you know, trying to locate mains, trying to locate services. 5 6 We never smelled any gas. But then, like I said, later on they 7 noticed the water started bubbling when the fire department sprayed so much water, and that's what got us down to that point 8 9 of starting to bar test. Because at the main -- our whole thing, 10 when we first arrived, was to get the gas off at the service so 11 the fire department can do their thing. You know, that was our 12 whole agenda, all the way up until we decided that --13 Ο. But when you uncovered the leak, give me a description 14 of what you saw, the condition of the leak? 15 Α. I mean, it was --16 I mean, how much gas was escaping from the leak when you Ο. 17 found it? 18 Α. I mean, it was a good leak, I mean, a good --19 I mean, what do you call a good leak? Q. I don't really understand how to explain -- or how to 20 Α. 21 explain that. I mean, it's just --22 I mean, earlier you said that it was just a little small Q. hairline crack or something like that. 23 24 Α. Right, but a hairline crack at 24-inch cast iron main, 25 at 30 to 40 pounds -- you know, 30, 20 pounds of pressure, it's

1 blowing a pretty good bit of gas, but -- I mean, it's not like 2 blowing completely in two main would blow. I mean, like --3 Q. Okay. So, I mean, it would have been blowing enough to, 4 say, dispel the dirt around it?

5 A. Oh, like to make it --

6 Q. Yeah.

A. -- move away from like -- no, it wasn't that bad. So, 8 I mean, it just -- I mean, I don't know how to explain it without 9 showing you.

MR. NICHOLSON: But in your experience of looking at other leaks, that was --

12 MR. STOKES: Right.

MR. NICHOLSON: -- you considered that an impressive leak, a large leak?

MR. STOKES: I mean, I've seen worse, I've seen not as bad, and I don't know how I can explain that in words, but -- I mean, I've seen a lot worse main, you know, broke mains before, you know, where it's all the way around. This one, it was blowing gas, but it wasn't as terrible. I really don't understand how --I can't think of a way to explain it to you without, I guess, showing you or you being there to see it out.

22 BY MR. BELL:

23 Q. So how do you guys fix this particular leak?

A. Like a -- that break?

25 Q. Was it -- I mean, this is where you cut the section out?

1

A. No, that was the service line we cut out.

2 Q. Yeah.

3 Α. To fix the break, I mean, what we'll do is we'll clean 4 it, clean the main up and put what we call a 360-wraparound with a repair clamp, and it's got anywhere from 3 bolts, it could be 71/2 5 6 inches long to 12½ inches long to -- we got different sizes for 7 different occasions but, you know, it just clamps on the pipe and you tighten up bolts and it just, you know, tightens up around it 8 9 and seals it. It's got a rubber inside of it that seals around 10 the main, the outside of the main.

11 Q. Okay.

A. This -- I mean, this -- like I said, it ain't the worst thing I've been on, but it ain't --

Q. So primarily, you would have a lot of scaling or crustation around the leak that's a large leak that's been leaking for a long time?

17 A. In the soil, correct.

18 Q. In -- yeah.

A. I mean, you might -- you can dig up a cast iron main or any main that is barely leaking, but just from being in the ground it's going to have this, what we call scale or and crud that you've got to take a file to kind of knock off to get it smoothed back down again for that clamp to seal correctly.

24 Q. Yeah, but bigger the leak, the more --

25 A. The bigger the leak, it don't necessarily mean more

1 scale that's on the leak. It just dries out the soil around it.
2 It ain't going to really -- I mean, you might have some scaling on
3 a piece of pipe that's barely leaking, but you still got to knock
4 it off and clean it to fix it.

5 Q. Okay.

A. The gas is just going to -- a bad leak is just going to dry the soil around it out more than if something was barely leaking. I mean, if you got a little bitty leak, the soil -there's not that much gas to take the oxygen out of the soil and dry it out. It's just --

MR. NICHOLSON: So you don't get the ball in a small leak?

13 MR. STOKES: No.

MR. NICHOLSON: And you would have expected a ball in a leak of the size you saw?

16 MR. STOKES: Right, if it had been there --

17 MR. NICHOLSON: For --

18 MR. STOKES: -- a day or two.

19 MR. NICHOLSON: -- a day or two, okay.

20 MR. STOKES: To me.

21 MR. NICHOLSON: I'm sorry. Go ahead. What was --

22 MR. BELL: I think one thing we can differentiate here 23 is between when he's talking about when it dries the soil out, 24 there's -- the soil actually more or less adheres to the pipe and 25 creates like a barrier around it. Although it still leaks; it

still is permeable, okay? But the scale he's talking about is just your basic, every day corrosion --

3 MR. STOKES: Right.

MR. BELL: -- and stuff that's on the outside of the 4 pipe, but for them to be able to put a clamp on and make it seal 5 6 so that they don't have a leak once the clamp is put on, that's 7 what he's talking about having to scale off and clean off and file off. But the -- what he's talking about drying the dirt out, 8 9 sometimes it will form -- it's like just a hard, hard surface to 10 the point where sometimes you just about have to come in there 11 with a hammer and chisel to get the dirt off the pipe. It gets 12 that hard. The natural gas will dry it out that bad, especially 13 if it's been there for a long time.

14 MR. STOKES: Correct.

15 MR. BELL: Does that make sense?

16

BY MR. CHHATRE:

17 Q. I have one question. I'm going to ask you that. Maybe 18 I'll ask you -- okay, let -- Matt skipped this thing, and I'll 19 take over, but my question is, the timeframe. You said that is --20 how do you come to that conclusion that it takes several days, it 21 takes one day, when you never really know when the leak occurred? 22 You don't know -- I mean, I can't say that's the Α. guarantee that that's what -- but based on experience and digging 23 24 up hundreds of leaks, that's usually how it is; 95, 98 percent of 25 the time, that's usually the case, that it's been leaking a while

and that -- and I'm not saying a while like as in a year or so,
but I mean, if you've got that bad of a leak and it's been leaking
pretty bad, I mean, it's going to take a day or two and it's going
to start drying, but this wasn't.

Q. Your point well taken. I guess my question is not so much what you're saying. My question is how do you know the times that you are bracketing it for a day or two versus several days, and so my question is, is there a test done? How do you know? When a leak occurs and you go to fix the leak --

MR. BELL: I think he's just saying based on experience.
 MR. STOKES: Yeah, I'm just saying based on --

12 BY MR. CHHATRE:

Q. That's what I'm saying. But how -- what -- I mean, what are the experience here when the leak -- let's just say you go to fix a leak. Somebody calls you, right?

16 A. Okay.

17 Q. You go and see a hard ball. How do you know the leak 18 happened 1 month ago, 2 weeks ago, or 6 months ago?

A. You don't. I mean, but you know that it hadn't justhappened 10 minutes ago or an hour ago.

21 Q. That's what I want.

22 A. Yeah.

23 Q. How do you know that?

A. Just experience. Just, I mean, just --

25 Q. Okay.

1 A. -- digging them up so much and fixing so many, you just -- because, I mean, we'll -- that's one of the signs of a gas 2 3 leak is dry soil and, I mean, dead vegetation. I mean, you can 4 have a dead spot of grass in the yard. It just dries and takes --5 No, I understand that. That part I understand, why you Ο. 6 are going to get dead vegetation. The part I don't understand is 7 where you're putting in your time frame as to -- because when you go and fix the leak, you really have no history --8 9 Α. No. 10 -- how long the leak has been there. Q. 11 You don't. Α. 12 Q. So I quess that's what I'm trying to understand, where 13 this time frame comes into picture because --14 And just -- and I'm just saying. That's why I said the Α. 15 first --16 No, I understand. I guess I'm -- because you're an Ο. 17 expert, I'm trying to relate to that, how -- what I can get out of 18 it is how do I quantify it? Like a few days, a few weeks, a few hours, is what I'm trying to quantify. How would, how --19 20 UNIDENTIFIED SPEAKER: That's the engineering, yeah. 21 BY MR. CHHATRE: Yes, but how could you know? I mean, when leak 22 Q. occurred, I don't know. Somebody calls you --23 24 Α. Right. 25 -- you go in there. It -- that somebody called you and Q.

maybe it happened an hour ago and they smelled it. Or maybe it's 1 2 happening for a whole year and somebody accidentally passes by and 3 smells it. So I'm trying to understand the logic between this 4 time frame. I'm not saying that --5 I mean, I'm just -- that's just me talking, I guess. Α. Ι 6 mean, I don't have no way of proving my theory. It's personal. I 7 don't have a device I could tell you, you could put on it and tell you, hey, this happened a week and 2 days and 3 hours ago. 8 9 Q. Okay. 10 But, I mean --Α. 11 But you have your opinion as to --Q. 12 Α. Right. 13 Okay. Ο. 14 Like I said, it was just a personal --Α. That's good, then. Now when you were there and you saw 15 Ο. 16 bubbles coming out and you opened the ditch --17 Α. Right. 18 -- did you hear any hissing noise, any noise? Was the Ο. 19 gas making any noise at all? Yeah, I mean, you can hear it. I mean, you could --20 Α. 21 when we first went down, we dug up, got to the main and checked it right -- like a little section like this, and we threw -- well, we 22 got soap and stuff, and it was blowing bubbles out the bank. So 23 24 we dug back on it and then as we got closer and closer, I mean, of 25 course, yeah.

- 1
- Q. So you could hear the gas coming out?

2 A. Yeah. I mean, you --

3 Q. Okay. And what is the standard practice in terms of 4 fixing these leaks, maybe Grade 1, Grade 2, Grade 3?

A. I mean, if we had got that report, somebody would have called that leak in, and a service tech would have went out there and investigated the leak, I mean, I'm sure he would have graded it Grade 1, which is it requires immediate attention.

9 Q. Now, I guess, my question was, on these leaks, have you 10 ever remembered in your -- have you heard somebody say that the 11 company asked you to remove that pipe to find out what caused that 12 leak, or you just go and fix it?

A. No, we -- I mean, you got leaks sometimes that you cannot repair with a clamp or with something, that you got to go back and cut out, but --

16 Q. Right, but that's different because you just go and fix 17 it.

18 A. Right. Yeah, 90 percent --

19 Q. That's just if you can fix it.

A. -- 95 percent of the time, we're going to fix the leak.
Q. Okay.

22 A. I mean --

Q. But you wouldn't take the pipe out to find out -- let us find out what's causing it?

25 A. I wouldn't.

No, I mean, when you -- say you, I'm saying did the 1 Q. company? Anybody in your supervision tell you that, get the pipe 2 3 out and we're going to find out what caused the leak? 4 Α. Not that I --5 Q. Okay. That's fine. 6 That's it. I mean, very useful information. Thank you 7 much. 8 Α. Well, thank you. 9 MR. CHHATRE: Any --10 MR. NICHOLSON: Anybody else? Okay. 11 MR. CHHATRE: Thanks again. 12 UNIDENTIFIED SPEAKER: Thank you, man. 13 MR. NICHOLSON: I'll conclude the interview. 14 MR. CHHATRE: Thank you so much. 15 MR. NICHOLSON: Off the record. Thanks. 16 (Whereupon, the interview was concluded.) 17 18 19 20 21 22 23 24 25

## CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: ALABAMA GAS CORPORATION (ALAGASCO) NATURAL GAS RELEASE WITH IGNITION BIRMINGHAM, ALABAMA DECEMBER 17, 2013 Interview of Pete Stokes

DOCKET NUMBER: DCA-14-MP-001

PLACE: Birmingham, Alabama

DATE: December 21, 2013

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.

> Kathryn A. Mirfin Transcriber









