

April 18, 2012

Berhan,

Thanks for chatting on the phone with me on Tuesday morning 4/17/2012 regarding blasting by Castle Concrete at the Snyder Quarry adjacent to Cedar Heights.

My wife and I have three concerns:

1. Damage to our house and property. It is unmistakable when a blast occurs. Sometimes we can feel our house severely swaying when the waves roll through the ground. We also experience violent shaking and loudly rattling skylights from what seems to be shock waves travelling through the air. Sometimes we feel movement both from within the ground and through the air. Most of the blasts we feel we would rate as moderate to severe.
2. Noise is also an annoyance -- not so much from the loud instantaneous bang a few times a month, but from the equipment. Some piece(s) of equipment make a lot of noise, and dust; I am not sure what equipment is the worst, but it could be some type of device to crush and/or sort the rocks. Also, noise from the backup beepers on the equipment travels far, and this starts very early in the morning.
3. Dust is a more of problem for others than it is for us, but depending on the direction of the wind, we get it occasionally. Most often we can see clouds of dust originating in the quarry and moving to other parts of Cedar Heights.

As I said on the phone, I am not sure if the problem has to do with the size of the blast, blasting along fault lines, blasting between fault lines, and/or something else. All I know is that it is very doubtful that the blasts are harmless. I will let you and other experts decide the best way to mitigate the problem.

Attached please find my log of blasts that you can use to correlate to the information you said Castle Concrete will be providing to you. Of course, I only logged blasts that my wife and I felt when we were home; your data probably shows additional blasts when we were away.

In your evaluation, please consider where the monitors are placed. For many of the blasts, a monitor is temporarily placed at 4495 Monitor Rock Lane (MRL) -- next to the curb, driveway, and on top of a narrow steep slope. Is best place? (*This picture is taken looking south.*)



This second picture is of our home at 4490 MRL, located WNW across the street from 4495 MRL. Here we feel strong shocks through the ground and the air. Perhaps monitoring *inside or very near* the houses at 4490 and/or 4495 MRL would be a better location.



Also, is seismic monitoring the only relevant criteria? Highway accidents are caused by excess speed, but also by road conditions, signage, highway markings, driver impairment, etc. What other conditions are relevant to the air and ground shock waves that should be considered when determining when, where, and how big blasts should be? I think given the experience of those doing the blasting, that it is unlikely that they exceed the legal seismic limits. Nevertheless, the problems for Cedar Heights remain; we need to ask what else needs to be done to mitigate it.

Thanks for your cooperation and guidance in helping us resolve this problem.

Best Regards,

William A. Sandras, Jr.

PS: Berhan, to reiterate, if you want to come *inside* my house sometime when a blast is schedule, just let me know.

PSS: Also, you mentioned that you had a Google earth map of the Snyder Quarry showing the areas that have been excavated, and outlining the approved boundaries for the quarry mining operation. Please email that map to me, or it mail it to me on a CD if that is better. Thank you.

Attachment: Log of blasts felt at 4490 Monitor Rock Lane.

CASTLE CONCRETE BLASTING				
Log of blasts felt at 4490 Monitor Rock Lane, ColoSpgs, CO 80904				
	July ?, 2009		house shook violently, afterwards diplomas on office wall were crooked	
	7/14/2009	11:10 a.m.	house shook violently, also felt by Satish	
	1/4/2010	11:05 a.m.	house shook violently, skylights rattled, computer desks swayed	
	11/4/2009	9:35 a.m.	house shook moderately	
	10/5/2009	10:15 a.m.	house shook violently, also felt by Satish	
	9/21/2009	1:02 p.m.	house shook moderately, skylights rattled (I was in mstrbathrm)	
	8/31/2009	3:16 p.m.	house shook moderately, skylights rattled	
	8/19/2009	8:41 a.m.	house shook violently, afterwards CU diplomas on office wall crooked	
	8/12/2009	11:15 a.m.	house shook moderately	
	3/1/2010?	11:19 a.m.	house shook violently throughout	
	3/4/2010	11:09 AM	light shock	
	3/4/2010	11:11 AM	light shock	
	3/22/2010	1:31 AM	house shook moderately to violently	
	4/13/2010	8:42 AM	very windy, saw dust cloud but did not feel blast in kitchen; wind or blast?	
	4/19/2010	10:45 AM	house shook violently	
	5/12/2010	11:30 AM	house shook moderately	
	5/20/2010	11:47 AM	house shook violently, skylights rattled, seemed to have an aftershock also	
	6/11/2010	11:43 AM	house shook violently, skylights rattled	
	7/6/2010	11:12 AM	house shook violently (I was by deepfreeze, garage door #1 was open, Trevor of Colo Grouting started to duck, garage door rattled in its tracks)	
	7/28/2010	11:08 AM	house shook VIOLENTLY, skylights rattled, fluorescent lights rattled, computer desks shook, pictures askew on walls	
	8/9/2010	11:52 AM	Huge blast	
	8/13/2010	11:39 AM	KLS was at her desk and said the house shook moderately; I was in driveway and felt nothing	
	8/19/2010	11:52 AM	House shook VIOLENTLY; we were in kitchen and chairs, lights, and cupboard doors rattled. Chair I was on shook.	
	9/3/2010	10:32 AM	Hard blast	
	9/22/2010	11:45 AM	VERY hard blast, floor rocked and house shook for a couple of seconds. Skylights rattled, desk shook, pictures moved on walls.	

	10/6/2010	10:15 AM	Light to medium (talked with two Buckley Power people before and after blast with a sismograph) Buckley Power Co. J.D. Farmer (spvr) (303) 810-5132 Engineer is Rod Schuch Buckley Power does the blasting for Transit Mix	
	11/1/2010	10:52 AM	Moderate - hard blast. Bookshelf and office floor shook and rattled. Blue skys & partly cloudy, 43F.	
	12/1/2010	11:34 AM	Very severe, the worst ever. Pictures shook on wall, all are now crooked, cabinets swayed, skylights rattled, entire office shook violently. Temp 46F, clear skys.	
	2/7/2011	12:11 PM	Severe. In kitchen on a chair and felt the floor undulate for a couple of seconds. Weather mostly sunny with high thin clouds, temp = 30F, no wind.	
	2/28/2011	9:48 AM	Very light blast; weather nice and warm as I recall	
	3/9/2011	10:32 AM	Hard blast, house rocked and shook. 35F and sunny outside with moderate breeze	
	4/19/2011	10:11 AM	Medium blast felt in mstrbrdm, I was outside by driveway and felt and heard nothing. Weather clear & 50F.	
	5/3/2011	10:08 AM	Konnie felt moderate blast inside house; I heard it outside garage #4; weather clear and mild	
	7/11/2011	12:17 PM	VERY hard blast. Konnie and I were on kitchen barstools and felt the floor roll and shake for a second or so. Buckley Power guy at Gallogy's said its was 111 DB through the air; I do not recall the seismic reading. Nice cool moderately humid partly cloudy day.	
	7/21/2011	8:53 AM	Konnie felt a medium blast in the bedroom, I felt nothing in the Solarium. Weather was clear and hot.	
	8/25/2011	10:51 AM	Hard blast. Scared Guy Holman in the solarium. He felt it first through his feet so it came through the ground, and perhaps also the air. Weather was warm and clear.	
	9/20/2011	9:55 AM	Office shook very hard. Eric was in lower level entertainment area and felt it. This blast felt like it came through the ground, not the air. Clear day, 57F.	
	10/4/2011	9:24 AM	VERY hard blast. Felt on all three levels. Items in office rattled, pictures left askew. Clear day, 68F approx. Shook pictures in office.	
	11/17/2011	11:04 AM	VERY hard blast. Light high clouds, 41F approx. Shook pictures in office, rattled bookshelves, whole house swayed, skylights rattled.	