Kyanites of Blandford, MA.

By Larry Bull

Setting the Scene

It all started when a friend showed me a few pieces of Kyanite he found in Blandford, Massachusetts. I put the collecting location in my “places to go” list, but a year or two went by and still my friend was unwilling to return with me to the site because of the difficulty of the area. That should have been a strong clue, but I only recognize it now in retrospect. Instead, I asked another friend, JC, who had been to the site if he would like to return. JC is kind of like Mikey, the kid from the old Life cereal commercials, when it comes to mineral collecting. He will pretty much go anywhere and do anything. What I didn't know was that when we set out that first day he thought I had meant a *different* kyanite location that had a nice wide path leading right to the collecting area. Despite the initial confusion, it turned out JC was willing to give the Blandford location another shot. Another strong clue that was missed by me was JC’s reluctance to return to this location.

This all transpired in December 2006 during the Winter-that-was-Not. In fact winter took such a long vacation that we were able to return to the site one day each weekend for five weeks in a row.

Collecting Environment

The location wasn’t at significant elevation. The distance into the area wasn’t much more than three-quarters of a mile. And, because of the time of year the insects weren't a problem. But for all of the things it wasn’t, this location was still a very challenging area. There was no clear path to the location and forest floor was well colonized by thick interlocking stands of Mountain Laurel. Mountain Laurel is a beautiful broadleaf evergreen that grows in virtually impenetrable stands. And, in case you hadn’t guessed already, these stands seemed to grow right on top of the best Kyanite outcroppings.

Here is what I learned about Mountain Laurel: If given the chance Mountain Laurel will always grab you or your backpack, stab you, poke you, hinder your progress or view, trip you, whip you or perform some other physical assault on your person. And, even when we found a surveyor's path through some of the Mountain Laurel it was one of those good-news, bad-news finds. Over all it was easier walking, but now I was being stabbed or sliced from the knees down by the cut-off branches and trunks. And because they are evergreen, they always have enough foliage to camouflage their nasty bits. Make no mistake about it, this kind of area, is one of the most difficult in all of New England to try to walk through. Doing it with one’s arms full of prospecting equipment is just a nightmare.

I don’t want to sound too negative about this location, but I would hate to even think about what this wetland area would be like in the heat of summer. Gnats, mosquitoes and deer flies (oh my!) with heat and humidity and sweat running into your eyes and on top of that the Mountain Laurel... oh, it would be a miserable place. So, December’s lack of winter weather proved to be as good as it could gets for collecting. Instead of Old Man Winter we got dry and calm, dry and windy and damp and calm. All in all, it was excellent weather for collecting.

The Rock Environment:

As some of you might have already guessed from the fact that kyanite is present, the rock is mostly schist with quartz seams. The schist itself appears to be a biotite schist with some chlorite schist as well. The kyanite itself can be located by sight as the blue color stands out even when somewhat moss covered. The acid rain must keep this material pretty clean and free of any iron staining. This sounds great but for the fact that the rock outcrops are still out there among all that Mountain Laurel. We found our first couple of kyanite specimens exposed and sitting under the mountain laurel. They had apparently been left behind by previous collectors. However it wasn't too long before the easy pickin’s had been discovered and any worthwhile kyanite had been extracted.

If the kyanite was not visible on the surface, we determined that you should look for some distortion in the schist with a quartz seam in close proximity. This is a good indication that a pod of kyanite might be present. From that point it is just a case of taking the rock apart to see if there is indeed a pod of kyanite. Sometimes this procedure produced and sometimes it didn't. Maybe we just didn't move enough rock to get to the next pod. At this point, with our limited experience, it was very hard to figure out just how the pods were laid out. Also, the best kyanite appeared to be the most difficult to mine. Kyanite found near ground level usually had significant staining from iron, while the best blue kyanite was only to be found by going deeper into the rock.

The big find:

Each of the first three trips we had returned with some good to very good material, but by late in the afternoon of the fourth trip we still had not found anything promising. We had explored a good size area and were becoming a little concerned that our good fortune had run out. We might be leaving with little or nothing.

At that point we both gravitated back to the previous weekend's outcrop that my partner, JC, and our friend had worked. This time we were working it out of necessity as there was nothing else. It was getting later and we were both really tired from trekking through so much of the Mountain Laurel. Progress doing this

kind of searching is slow and very tiring. It's almost like you have to be a human bulldozer.

But back to the outcrop... we were alternating taking turns at this one area and soon had what we initially thought was a quartz seam. It was too hard to be anything else or so we thought. Then a corner was knocked off showing a little kyanite and our spirits were buoyed. With this encouragement we were able to keep at it. However, it just would not break; we were getting frustrated and the sun was sinking lower in the sky. The old adage came to mind, “When in doubt, use a larger hammer.” Finally we were able to get a bull point firmly set and out came the 8 lb sledge. The rock fought, but we fought back. Finally it split right in half. I took hold of one half weighing about a hundred pounds and rolled it toward me and there it was right in front of both of our wide eyes. Almost solid blue on the inside of the piece and there on the other side still in the rock the same. Kyanite on both sides! We had hit and split a big kyanite pod. It was close to two hundred pounds total and most of it was a beautiful blue with nice long blades of six or seven inches in length. Oh boy, oh boy.....

It was getting late and given the time of year we had not much more than an hour before dark. I frantically started to trim the kyanite down to a few manageable specimens by removing as much of the outside schist from the pod as I dared. We each packed up two pieces which completely filled our backpacks. JC even took his tools out of his backpack and left them safely hidden nearby just to accommodate his two specimens.

The trip out:

Now before us lay the arduous task of getting our treasures and ourselves back to the vehicle. We were to find out and suffer from each step of elevation that we had to gain on our way back. There is nothing like a little weight to let you know when you are going up hill even slightly. The mile or so hike back to the vehicle took some fifty minutes. I led the way and got back soon enough that it still wasn't dark. So after dumping my load and collecting myself I headed back to help JC make his last 150 or so yards. He was a little off track in his direction and gladly took my assistance as I offered to take one the specimens he was carrying and his coat the balance of the way.

We made it out without injuring ourselves; though I was still sore a week later from carrying out one of the specimens in the crook of my arm. Carrying the specimen in the crook of my arms helped balance the load on my back and made breathing easier, but it still took its toll. We were both soaked from sweating and I was actually feeling some what overheated. Needless to say we were soon cooling down and it was great to get into the vehicle, get the heat on and start heading home.

The trip home passed quickly as we spent time talking about the find and guessing the weight of the four pieces. My past estimates of what a full pack weighed were usually high so this time I was figuring I carried 50 lbs. JC's estimate of his pack weight was a little higher. However, we were both surprised when the scale revealed I had carried out 82 lbs and JC had carried 79 lbs! Scottish Highland games here we come! That was just the two specimens each. I was amazed and pleased I was able to do it. We did our coin toss right then and there. I got first pick and ended up with the two specimens JC had carried out and vice versa for JC.

Cleaning the specimens:

I used Super Iron Out to clean the iron staining off of the specimens. But there were a number of specimens with really nice blades from which the iron staining just would not leach. As a result I finally tried Oxalic acid in a crock pot. The results were very good. So much so that I went back and redid most of the other material I had already done in the Super Iron Out followed by a wash with the water gun and some fine trimming.

So, for our efforts I have a number of flats of nice kyanite from Massachusetts and two very scarred shins. The shins did get better as JC let me use his caving shin guards that fourth weekend. After the one use I ordered a pair for myself which I used on our 5th and final trip to Blandford. Then suddenly winter's vacation was over and it's been really cold and a little snowy ever since.

The 5th trip back was really pretty much a bust although not for lack of trying. We went back to the same spot. This time Paul joined us, but despite all our rock moving nothing showed up. Fortunately there were a few pieces we had had to leave behind from the previous weekend. So, though we did not find anything new, we did not have to leave totally empty handed.

Other minerals present:

Kyanite, an aluminosilicate, is identical in chemical composition to andalusite and sillimanite, but forms at higher pressure (i.e., deeper in the earth's crust). Staurolite and almandite (aluminosilicates with iron) form at similar pressures, but lower temperature than kyanite and would be expected to be in the area. Although it seems reasonable that they should be present, we did not see any. I have since heard that stauroloite is present in the area from a geologist who has spent years studying Blandford. Almandite (garnets) were present in good quantities, but were too small (2 mm) and poorly formed to be of interest. However, this area is not that far from where the very large (baseball size) garnets were found in an area now covered by the Massachusetts Turnpike. So who knows....? The minerals we found and the areas we found them in have significant geological significance if you are into studying isotherms. You can

really start to understand geology and geological processes and how to interpret what's there in front of you by the indicator minerals that are present.

Comments:

For me this place had me off my feet, i.e. falling down, more often then I had ever experienced. The Mountain Laurel got me a number of times. Fortunately the falls left me uninjured, though at times more than a little frustrated. My reward on each and every trip was a sesame bagel to start the trip and a Boston cream donut on the way back. JC is such a bad influence.