CHAPTER FOURTEEN

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AN OPPORTUNITY AS DIVISION ENGINEER

LOCATING IN DENVER

INTRODUCTION

As I mentioned at the end of chapter 13, Esther and I flew to Denver to find a house before making the move. Of course, transfers became effective almost immediately and there was little time to make the transition. I would work both ends, i.e. break in the district manager for Rock Springs and become acquainted with my new job under the tutelage of Hank Valentine, the previous Division Engineer. Even so, the movement of our household was to take place as soon as school was out, which was less than a month away.

HOUSE HUNTING IN DENVER

I remember the flight to Denver with Esther and Tom. It was on Frontier Airlines in a Convair propjet. In 1969, this was still a nice plane even though jets were becoming commonplace. We had paid a lady to stay with the girls at our house while we were gone but Esther wanted Tom with us. Valerie was just finishing her junior year in high school and Celeste was finishing the ninth grade, so it could hardly be called babysitting. I remember the girls being very unimpressed with their substitute mom. I think Esther had spoiled them because the lady's meals were the pits and her conduct was hardly lady like according to both Valerie and Celeste. However, they survived and we were able to secure a house at the other end, which would meet our needs.

Neither Esther nor I were really familiar with suburban Denver and consequently weren't too sure what area to begin our house hunting in. We talked to various people in the Denver office and the consensus seemed to be that the area south of Denver was preferable. Consequently, we contacted a realtor and began looking in Englewood and Littleton. After looking at numerous houses in our price range, we settled on a tri-level in Littleton. Actually, it was in Arapahoe County but it had a Littleton address of 855 Costilla Way. There was a new high school nearby called Arapahoe High where the girls would attend. Tom was five and a half and couldn't enter kindergarten until the next fall because he was born in December. His school would only be a couple of blocks away. The map of Figure 14-1 provides the general layout of our part of Arapahoe County, including the

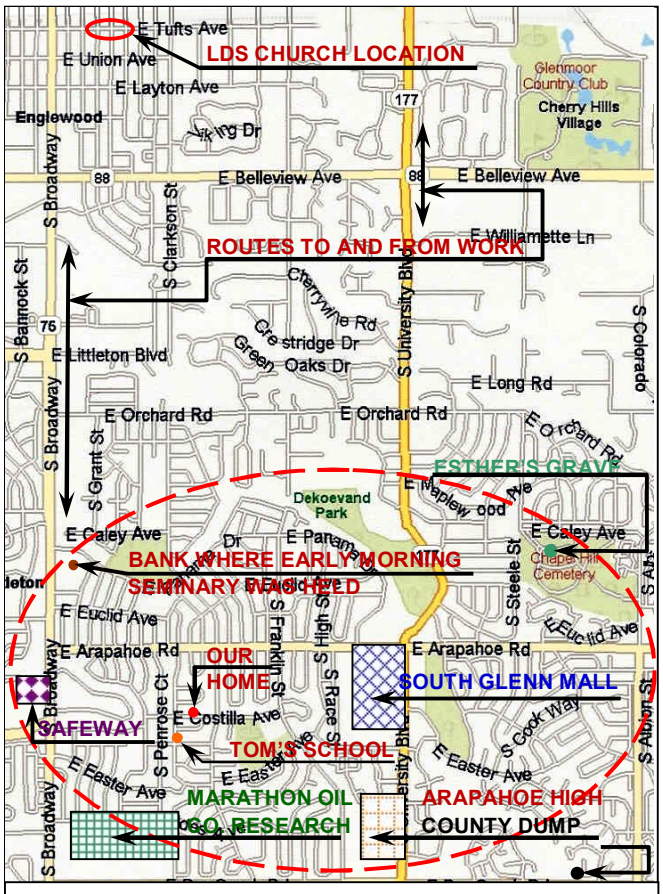

Figure 14-1 A map of the area, surrounding our first home in Denver, Arapahoe County, CO.

location of our house. I will use it to help describe our activities while living there. I also included Esther's burial site some 21 years later but only because it was convenient. Since we already had a closing date for our house in Rock Springs and we set closing in Littleton 3 days later. With that accomplished, we headed back home to prepare for the move.

A SALT LAKE BUYING SPREE

Our house in Denver had a dining room along with a breakfast area in the kitchen. Previous houses had only one eating area in or next to the kitchen. Of course, that necessitated the purchase of a dining room set. Esther and I were in agreement on that point. She wanted to buy the set in Salt Lake and have it moved with the household furnishings because it would be easier than finding what we wanted in Denver. I wasn't sure I agreed with that logic but what the heck, it wouldn't cost any more. Besides, I had, after 18 plus years of marriage, learned to give in where the consequences were minimal and save my resistance for more important things. So off we went to Salt Lake to buy a dining room set. Little did I realize, I was being sand-bagged. She had more in mind than just that set.

We stayed with Art, Esther's brother and his family who lived north of Salt Lake in Syracuse, as I remember. Art mentioned a furniture outlet nearby with a big selection and with reasonable prices. I believe it was called R. C. Willey Brothers or something close to that. Anyway, off we went the next morning and spent the day spending money.

What was to be a dining room set, turned into a table, six chairs and a china-closet. That wouldn't have been half bad. I kind of expected all that but then she began lamenting about the condition of the sofa and the lack of table lamps or the tables to put them on for that matter. All I could see was dollar signs and decided to put the brakes on. I said, "Esther, we have this much money to spend and no more. Whatever you get will have to fit within that amount." That didn't seem to deter her but it did cause her to reconsider the cost of each item. She was bound and determined to get a sofa because the old one would go in the den, as would the old easy chairs. Thus, we had to have chairs and a sofa. She bought a sofa with lamp tables attached to each end for reading lamps, which reduced our need for such tables to one. That helped but we had to get three lamps. Well, we finally got out of there for a couple of thousand dollars. The sad part was the result of the combination of my economy and her insistence on several items I felt we could

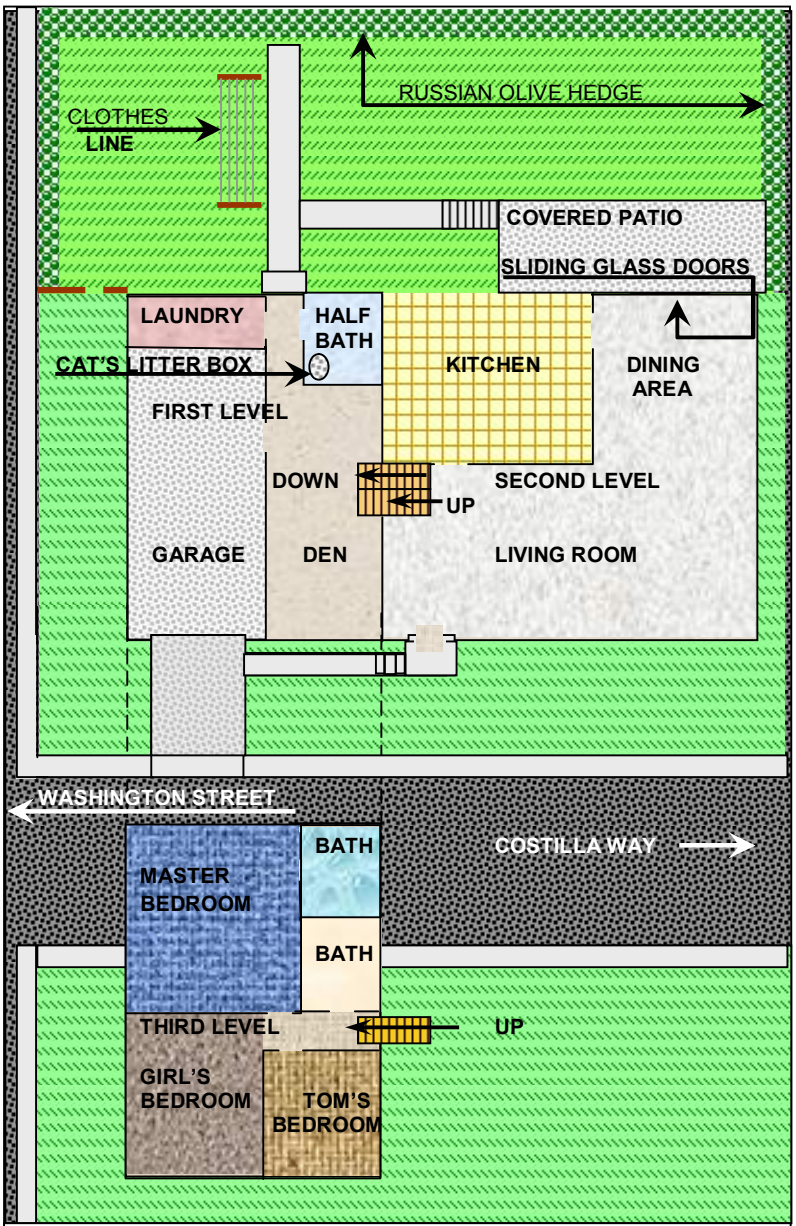

Figure 14-2 A floor plan (not to scale) of our tri-level home in Arapahoe County Colorado from 1969 to 1971.

get along without for the time being. We ended up making some rather cheap purchases, which didn't hold up well and which we soon got tired of. The dining room set looked OK but was poorly constructed and required continual repair in later years. The couch was uncomfortable and looked as cheap as it was. However, I must say the garish appearance of the lamps went well with the sofa. How we ever picked out that combination is beyond me. I can't blame it on Esther any more than myself but I would advise you yunguns as follows, "If ya can't afford something decent, don't buy anything".

THE BIG MOVE

We had experienced bad moves with Mayflower and only a marginal move from Farmington. I was in a quandary regarding which moving company to hire. I finally decided on a locally franchised North American company. It turned out to be a good decision. They did an excellent job for us. There was no damage and the move was on time. In fact, we liked them so well that we used them again when we were moved to Casper, Wyoming 2 years later.

I don't remember any problems with our move other than having to stay in a motel a night or two. It seems we were settled down before we knew it and quickly adapted to our new surroundings. Figure 14-2 portrays the floor plan of our little tri-level, while figure 14-3 gives a front view with yours truly standing guard in his Sunday best. Though it was far from perfect, particularly the den, it was quite a livable little house with a nice yard. I had vowed never to buy a new house again because of all the work I put into the yard at Rock Springs. I was overjoyed to have the landscaping complete. All I had left to do was mowing the lawn and trim the hedge. Being transferred on a regular basis makes extra yard work far from profitable and takes away from family time for vacations, etc.

FAMILY EXPERIENCES AT HOME

ESTHER'S DOMAIN

We moved to Denver in the early summer of 1969 and stayed until the summer of 1971. Though the stay was rather short, we had some good times as well as a few problems but the latter were far between and quite easily taken care of. I'll use figures 14-1 and 14-2 to describe some of those, which might be of interest. Then again, maybe none of it will be to you. Only you can answer that.

Esther never liked Rock Springs as I have mentioned before. However, a move to the big city of Denver was hardly a step upward in her book. She preferred small towns where she was comfortable behind the wheel of the Dodge and felt free to go where she pleased. In Denver, or maybe I should say Littleton, she was restricted by her fear of finding her way and negotiating the traffic. She never went to down town Denver unless I, or later Valerie, drove. Even so, she adapted to the Littleton area and was able to accomplish such things as shopping and school or doctor visits. The dotted red oval at the bottom of figure 14-1 pretty well circumscribed her area of travel. She bought groceries at the Safeway shown to the left of the oval and did most of her other shopping in an associated complex or in the South Glenn Mall to the right of our house. She even filled her visiting teaching assignments, one of which was well to the east of the mall near Arapahoe Road. She seemed to develop the confidence necessary for traveling any place she deemed important.

Figure 14-3 "Yours truly" in front of our tri-level home in Littleton, Colorado.

Esther hated cats. When Tom requested a cat for his birthday, she was torn between putting up with the thing and disappointing him. I told her to forget it because I wasn't really crazy about them either. Besides he would get over it. However, her concern for his happiness won out and we became the proud owners of a male Siamese cat or in her words, a ccaaaaaattt. Tom was tickled pink while Esther's feelings cycled somewhere between tolerance and hate, which helped me better understand the sacrifice a mother will make for the love of her children.

We placed a litter box in the den bathroom but in spite of Esther's efforts to keep the thing sanitary, it stunk. Gradually we adapted to the smell but soon he was clawing the sofa and curtains and even tried to climb the latter. I built a clawing post, which he used but only in addition to his other clawing habits, or so it seemed. She was constantly shooing him away from things. He would climb around the kitchen looking for goodies and she would take a broom after him. One day she had a roast out thawing and when she came into the kitchen he was chewing on that. All of her experiences with him seemed negative. He wasn't friendly like the dog and consequently provided little positive input to the relationship. Of course, Esther knew she would hate him when she got him but her concern over Tom's happiness won out.

The cat wanted out on a regular basis and she didn't hesitate to accommodate him. One time I had to rescue him from a roof. Finally one day, he didn't return home as usual. The girls and Tom searched the whole neighborhood with no luck. He was gone, it seemed and Esther breathed a sigh of relief. One day a kindly neighbor said a family up the street had him. After thanking her, Esther said, "Good, we won't tell Tom". We didn't and soon Tom quit talking about him. He found other things to do and Esther swore the rest of us to secrecy. She had

Figure 14-5 Valerie in a studious mood relaxing on the patio in Littleton, Colorado.

made an effort to please Tom but boy was she relieved to have that ccaaaaaattt gone.

VALERIE

Valerie was fit to be tied when she heard we were moving to Denver. She was just finishing her junior year in Rock Springs and had no desire to leave her friends. She wanted to stay in Rock Springs and live with some friend but she never came up with one. Of course, we

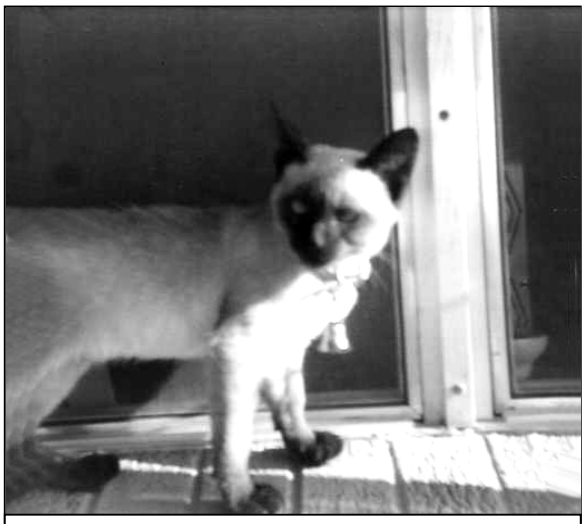

Figure 14-4 The Siamese cat, so beloved by Esther, poised at a window in Littleton.

wouldn't allow it. I wasn't very understanding and said simply, "Well Valerie, moving is just part of life. You'll just have to adjust". I've since learned from other people that such rebellion is quite common at that age. I suppose I should have been more understanding but there wasn't much I could do anyway. Our life included regular moves and would so continue in the foreseeable future. She eventually adjusted but never did like Arapahoe High School. I suppose part of that was due to the change from a small town school to one in an urban area, which was more like a college. It had something like 1600 students as opposed to 600 or so in Rock Springs. They also used a campus type schedule wherein kids could leave school when not scheduled for a class. Timely attendance was left up to the student with the idea of helping prepare them for college. She did all right scholastically, however, because she was aiming to get into BYU the next fall. The experience didn't seem to hurt her except she had a negative attitude about the school and made few friends during her one year there.

Valerie learned to drive during her first year in Denver. I think we may have started her in Rock Springs but now she was in the big city. As I remember, she took drivers education during her last year of high school and was soon driving around the local area. As part of her training it seems to me she had to drive to and from down

town Denver or at least share the experience with other student drivers. She did well and seemed to have no trouble adapting to the traffic. Esther, on the other hand was quite nervous driving in the big city. She confined her forays to those necessary to accomplish her duties in life, i.e. getting groceries, visiting the doctor or dentist and going to and from the Church. I did all the driving where the whole family was involved, although I'm sure Valerie substituted once she past her test. I believe she may have driven to and from seminary in the latter part of the first year there. I also seem to remember rides shared with the Matthews girls who lived a short way down Washington Street.

VALERIE FINDS EMPLOYMENT

The next summer, after graduation, I insisted that Valerie get a job to help pay her way thru college. She was rather adamant that she wasn't going to because she knew I would pay her tuition, etc. Finally, I said, "If that's the way you're going to be, you'll have to wear your high school dresses because I'm not buying any more for you. If you want new clothes, you'll have to earn them". She soon realized I meant it and before long had a job in a drugstore, I believe, on Arapahoe road. She didn't make all that much money and, no doubt, we bought most of her clothes but at least, I had the satisfaction of knowing that she contributed. In a sense, I also won that particular challenge, which she had issued in that she got a job. That was my main purpose. I felt strongly that she should at least make an effort to contribute. The photo of her in figure 14-5 was taken on the patio of our Littleton house.

"If that's the way you're going to be, you'll have to wear your high school dresses because I'm not buying any more for you. If you want new clothes, you'll have to earn them".

VALERIE ATTENDS THE "Y"

In 1970 Valerie was accepted at BYU and we made a family trip out of taking her there that fall. I don't remember the particulars of this trip except that we had the Dodge wagon loaded down with her things and little room for our own suitcases. She was to stay in one of the dormitories on campus and ended up on the 2nd floor. Of course, I had to haul everything up to her room, which was quite a chore. I couldn't help but remember when I went off to Oregon State. Three of us hauled all our stuff in half a back seat of a 1933 Ford. What a change. Valerie took everything she could think of and then her mom added a bunch of stuff she deemed important.

It's a good thing I was still relatively young and in half way decent shape or the effort to move her in would have finished me. As I remember, we toured the campus, ate in the student union building and visited the bookstore. We had a good time and stayed in a motel near campus. Needless to say, Valerie was excited because this was her first time away from home. Esther, on the other hand, was already missing her by the time we headed back for Denver. It would be lonely without our eldest.

I must admit, it was a little lonely around the house without Valerie. Things were just too quiet. There was no one around to stir Celeste up and cause her to worry about imaginary catastrophes. Neither was there any sibling scenes regarding whose turn it was to clean the kitchen or the bedroom. As a matter of fact, it was downright peaceful but Esther really missed her big girl. Of course, old dad would never admit he would like to have had her around.

Thanksgiving came and went with a big hole in the festivities. I began to think maybe the arguing and the taunting that used to go on was really what I needed. Esther kept talking about how she missed Valerie and looked forward to Christmas. Valerie would come home for a couple of weeks. Soon the day arrived and we went to the airport to pick her up. We were waiting at the gate when she de-planed with a friend. Esther couldn't wait as she came through the door from the boarding tunnel. She ran up and gave Valerie a big hug and a kiss that just about ruined Valerie's day. My goodness, she was an adult, not a little girl and besides, she had a friend with her. She didn't think that was appropriate for grownups and she didn't want people staring. Well, she survived and soon Esther's feelings from the rebuff were soothed. We headed for home to enjoy the holidays, which seemed all too short.

A TRIP TO REMEMBER

Two weeks went by rather quickly and before we knew it, it was time for Valerie to return to school. We decided to take her back in the Dodge. I can't really remember why. Anyway we set off for Laramie, Wyoming to take I-80 over to Salt Lake and Provo. We felt it would be the fastest way and the safest at that time of the

year. Though I had experienced ground blizzards several times by myself in the oil field, I wasn't really prepared for what followed. The weather was clear in Denver and we made it to Laramie without difficulty. After refueling and a bite to eat we headed for Rawlins. It was cold and windy as usual in Wyoming. About 10 or 15 miles out of Laramie the wind was really stirring up the snow. The blowing snow cut the visibility to little or nothing. I don't believe I could see 20 feet in front of the car. Of course, I slowed down to a crawl but was afraid to stop for fear that a car, or worse yet an 18-wheeler, would run over us. I crept along at 5 to 10 miles an hour even coming to a stop at times. Occasionally, I could speed up but was never able to reach 50 mph, as I remember. The hundred miles to Rawlins took a good 4 to 5 hours. Things got a little better when we arrived there and we continued on to Rock Springs making that hundred miles in about 3 hours. We were bushed and got a room in Rock Springs after having dinner. We learned the interstate had been closed from Laramie to Rawlins right after we left the former. Now it was shut down all the way across Wyoming. We weren't sure what morning would bring.

Morning came and we headed out again after an early breakfast. No one stopped us but by the time we reached Little America 35 miles to the west, I knew we would have another good day in store for us. They might very well shut the highways down again and we would have to stay at Little America. As luck would have it, we managed to get past that oasis in the desert before they did close I-80 once again. We learned that on the radio. It seems we were just ahead of every closure, which I suppose was a dubious blessing. We struggled on to Evanston through blinding snow, arriving there about noon. Once again we had been 3 to 4 hours making 100 miles. I fully expected to be stopped in Evanston but no such luck. We continued on with short bursts of speed but generally rather slowly as I strained to see through the blowing snow and compensate for the wind pushing the car in various directions. Things eased up a little as we dropped down into Utah and we made it on into Provo in reasonable time arriving in the middle of the afternoon. We had accomplished our mission of getting Valerie back to school on time but when we could return to Denver was definitely in question. We stayed the night at a motel and then drove up to Syracuse to visit Art and family. The highways were miserable all along the mountain front but they did remain open. I'm not sure just how long we stayed at Art's but by the time we left the

Figure 14-6 Celeste, a senior at Arapahoe High, in the front room of our Denver home.

wind had moderated and our trip back was uneventful. I suppose, after the trip to Provo was over, almost any travel anywhere would have been uneventful.

The blowing snow cut the visibility to little or nothing. I don't believe I could see 20 feet in front of the car.

SOME CELESTIAL EXPERIENCES

Celeste wasn't as upset as Valerie about our move to Denver. However, she never really liked Arapahoe High nor did she feel accepted particularly by the kids in her ward at church. I remember her refusing to go to Young Women classes on Wednesdays. She said she learned nothing. All the teacher did was talk about movies, boys and things of that nature. Finally Esther let her stay home and I don't remember an inquiry from the teacher as to why.

Celeste didn't like the open campus at Arapahoe as I mentioned earlier and didn't identify well with the counselor assigned to her either. However, she seemed to do OK in school, having no difficulty in passing the required subjects each year. She was going in to her senior year when we were transferred to Casper but unlike Valerie, gave us no trouble over the anticipated change. I attribute that to no close attachments with other kids at school or at church for that matter. Those items seemed to wait for her in Casper where she made several friends including one girl named Jeanne Busby, I believe. Jeanne was a frequent visitor in our house. Celeste is shown in figure 14-6 sitting on that lovely sofa we had purchased in Salt Lake.

TOM BEGINS SCHOOL

Tom was 5 ½ when we moved to Littleton. He began kindergarten that fall, 1969, in a grade school a couple of blocks down the street, if my memory is correct. For some reason the name of it seems to be Davis Elementary but I wouldn't bet any money on that. Esther would know all such details. She very dutifully kept almost everything he did in school, I found out later. When I finally left Denver the second time in 1991, bound for Georgia, I found boxes of his schoolwork from every town we had lived in. As a testimony of the fact that they were never looked at, I wasn't even aware she had saved them. I'm sure she intended to look at them at times or maybe give them to his future wife but such never occurred. Tom appears in figure 14-7. This photo had to be taken in the summer of 1970 or maybe 1971 since he is holding our new puppy, which the kids named Cuddles.

Tom learned to ride a bike in Littleton. He wouldn't use the training wheels and I still remember running up and down Costilla Way holding the bicycle up so he could learn to keep his balance. I remember getting very frustrated as well and found it difficult to show the patience needed for him to overcome his fear. I suspect I wasn't a very good teacher but I did try, well sort of. He received the bike for Christmas in 1970 but had little use for it until the next summer, after moving to Casper with its safer streets.

CUDDLES REPLACES FLUFFY

Fluffy, of Pomeranian breed, had been with us since our first stay in Rock Springs or about 1958. She had been the family dog in Billings, Cutbank, Farmington, Rock Springs and now Littleton in 1970. She had had severe health problems in Farmington but seemed to overcome them. She was cute and the kids loved her but she shed like the autumn leaves. Esther constantly cleaned up hair from the sofa, rug and even our clothes. However, we had adapted, supposing all dogs shed like that.

About 1970, Esther decided to get Tom a dog. I expect it was to replace the cat and probably occurred around Christmas. Anyway, she found Cuddles, a small female French poodle, which we obtained as a puppy. Esther found out she didn't shed, being a poodle, and was overjoyed. The two dogs got along fine but the longer we had them the more Esther fretted about how much Fluffy shed. She wanted to get rid of Fluffy but felt guilty because the kids loved her so much. She had been around for 12 years. Finally, I said, "If you want me to, I will take her to the pound and have her put to sleep. Her

Figure 14-7 Tom in the back yard of our home with a new puppy, Cuddles.

health isn't that good anyway". She thought about it and one day gave me the OK. The next Saturday I took her to the Denver Pound and left her. She would be put to sleep within a couple of days. I came home and the kids would hardly speak to me. Esther had told them what was going on and they thought it was all my idea. She hadn't shared her part in the episode. Well, I took it as part of being a dad who was unreasonable at times. It wasn't until many years later when we were talking about Fluffy that they learned the truth. I didn't mind taking the blame but I did want them to know that Esther had her hand in it too before departing this life. In fact, I just carried out the dirty work.

BACK YARD MEMORIES

We had a nice backyard surrounded by a hedge of Russian Olives. It provided the desired privacy that was so hard to find in metropolitan areas. It enabled us to have barbecues and other family activities without the worry of the prying eyes of neighbors or passing motorists. Little did I realize, however, what the additional cost that the hedge would bring to me, over and above the house payments, a comment I'll explain later. Esther enjoyed the clothesline, which allowed her to hang out the bed linens. Even though we had a dryer, she insisted that the sheets and pillowcases had to dry on the

line. It gave them a clean fresh smell, which was important to her. The fenced in yard also provided Tom a secure place to play.

VALERIE'S ALLERGIES AND TONSILLECTOMY

Soon after we moved in, Valerie began to have noticeable problems, which appeared to be allergy related. Esther had her tested and we found several items that seemed to trigger her problems. Among them were Russian Olives. From that point on she stayed clear of the hedges and maybe even the back patio. However, we all enjoyed the patio in the summer. It was shaded and cool, providing a pleasant place to read or just enjoy a short nap. There was always a little competition for the lounge, which Valerie is enjoying in the photo of figure 14-5 and even her allergies didn't stop her from taking her turn. She was now at that age, which in her mind, meant adulthood without responsibility. As I have said, we had a few discussions regarding the subject.

During the summer of 1969 or maybe 1970 Valerie experienced more than her share of sore throats and colds. The doctor recommended that she have her tonsils out to clear the situation up. Sometime later she did at the Swedish American Hospital, I believe, in Englewood. It was a difficult experience for her.

Figure 14-9 Esther recording a few family activities in Littleton, Colorado back yard.

I remember how sore her throat was for sometime after that. Apparently, such an experience is more difficult for older kids and adults. She was 17 or 18 at the time.

I had forgotten but was reminded by Celeste of Valerie's appendectomy during her first year at the Y. I wasn't around to witness it; I just received the bill that followed. Actually, I think school insurance may have paid the majority of

Figure 14-8 Grandpa about to begin the tortuous job of clipping the Russian olive hedge around our Littleton home.

it. The operation was at the Utah Valley Hospital in Provo according to Celeste's memory. According to mine, it was in some far off place in a land towards the setting sun, referred to as Utah. In my mind all associated events are as vague as the appendectomy itself.

YARD MAINTENANCE

Our lawn in Littleton was only of average size and took a only couple of hours to mow. I opted for an electric mower because of the convenience of outside outlets at our residence. The only trick was to take a path around the yard so as to keep the cord, 100 feet or so, from becoming tangled or worse yet cut by the blade. I developed a routine, which minimized the problem and became quite proficient in getting the job done. The cuttings were placed in bags for pickup with the garbage.

The Russian olive hedge grew faster than I expected. By the middle of the first summer, it became apparent that it would have to be cut. I purchased an electric hedge trimmer and a 100-foot cord along with a stepladder for the job. You see, the hedge was high enough, particularly in back, such that I had to stand on the stepladder to reach the top. It was an all day

affair. Figure 14-8 is a photo of me about to begin the job. The lack of perspiration and the frown on my face both testify to the fact that I am just starting. By the end I would be be-draggled but have a pleasantly satisfied look on my face. The frown exhibited is obviously generated by my understanding of what lay ahead. Esther is shown in figure 14-9 with our 8 mm movie camera preparing to record some activity, maybe even my exertions. Whoever took her photo probably took mine as well, because I am certain I didn't photograph Esther.

It was through the hedge activity that I began to realize I was somewhat allergic to Russian olive, similar to Valerie. When I completed the job, my nose would be running, my eyes red and itching and that night I would have trouble sleeping because of a stuffy nose. It wasn't so bad for me, however, because I recovered in a couple of days. I had no trouble doing whatever I wanted in the backyard but poor Valerie had to stay as far as possible from the infernal things.

After completing the hedge trimming, I had to haul the branches off to the county dump on Dry Creek road. In figure 14-1 the location is shown in the lower right corner as a black dot. I feel sure that will be of great interest to all of my readers. After all, anyone pursuing this work to this point can't be too bright. Anyway, I would lay the back seat down in the Dodge, load it up and head out. Tom usually went with me because it was in the country. He enjoyed the ride along the dusty Dry Creek road, which seemed well named. Now the city extends far south of Dry Creek. One load in the station wagon usually did the job, which made me happy. After that, I had to clean the old Dodge up and put it in shape for Esther so as to keep her happy. Remember, she liked her environments neat and clean. Finally, the realization that I was done for at least a month

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made everyone happy because my grouchy nature seemed to disappear for a time. I suppose one might say that I held the key to happiness for our family, at least in that rather limited environment.

The photo of figure 14-10 shows Tom busy watering the backyard in, I would guess, the summer of 1969. His tricycle is in the background and he appears a little younger than in figure 14-7. I'm confident he would have had Cuddles in his arms if she had been available.

FAMILY OUTINGS

We were in the Denver Area the better part of two summers, that is, 1969 and 1970. During

Figure 14-10 Tom doing his thing in the summer of 1970 in Littleton, Colorado.

the summer of 1971 I relocated to Casper, Wyoming, keeping the same responsibilities but more about that later. We took advantage of the Colorado Mountains during the two summers we were there. Often we would go out for the day or maybe stay just one night. Sometimes we camped out but one night stays were usually in a cabin because of the work associated with it, an expense that I had little trouble with.

A ROCKY MT. NATIONAL PARK TRIP

The summer of 1970, mom came to visit us. Figure 14-11 shows her standing at the front door of our Littleton home and the address clearly emblazoned beside her head. She would have been going on 77 that summer and was still full of vim and vigor. It seems she stayed a week or maybe two. Valerie and Celeste always admired their grandmother because of her enthusiasm for life and her desire to participate in most of their activities. They loved the picnics we had in the mountains and suggested we repeat a trip of the previous summer through Rocky Mt. Nat. Park. It would be a nice picnic and grandma would surely enjoy the scenery.

The next Saturday we got an early start knowing that such a trip was an all day affair. The trip route, a dashed blue line, is illustrated in figure 14-12 while an associated but unplanned hike is

described by figure 14-13 by a dashed red line. We headed northwest out of Littleton and intersected Interstate 70 near Golden. At that point I-70 and U.S. 40 are one and the same. Just below Georgetown U.S. 40 veers off to the right and climbs over Berthoud Pass at 11,315 feet. It was a narrow road with few, if any guardrails, at the time, but a truly beautiful drive. As one nears the top, the view, of the Clear Creek drainage behind, is magnificent. Then, just as you clear the continental divide, the view ahead of the Fraser River country is equally beautiful. It is typical of the Colorado Rockies, a feast of panoramic beauty, which is hardly available anywhere else in the lower 48.

We traveled down the Fraser, basically, through Winter Park and Fraser to Granby. There, we hung a right on US 34, which would take us over Trail Ridge road through the Rocky Mt. Nat. Park to Estes Park. It was a little past noon when we arrived at a picnic area called Timber Creek. Its approximate location is provided by the red dot in figures 14-12 and 14-13. We ate lunch there and enjoyed the quiet beauty of the confluence of Timber Creek with the North Fork of the Colorado River. It wasn't long until Valerie was running back to the table saying, "Let's hike up to a lake. They have a map over here on a post and it isn't very far. We walked

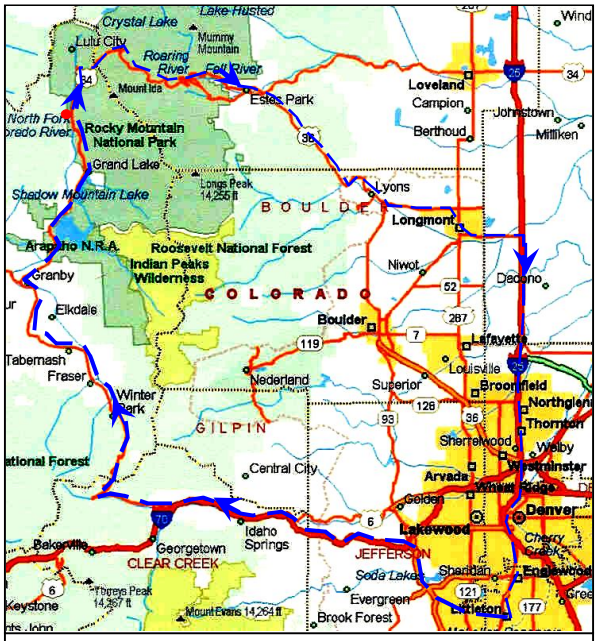


Figure 14-12 A map depicting our outing with mom through the Rocky Mt. Nat. Park.

over to the sign showing the Timber Creek Trail with distances to two different lakes as well as other locations. One lake was only two miles and the other five. I suggested we walk to the

Figure 14-11 Mom in the summer of 1970 on the front steps of our Littleton home.

near lake but Valerie, in her usual exuberance, wanted to hike to the further one. I said, "Valerie, remember you have to walk both ways and that's a total of ten miles. Are you sure that's what you want?" Of course, I couldn't sway her and we all started up the trail. Esther and mom said they would hike as far as they felt comfortable with Tom and then relax beside the creek while we went on. At this point, Celeste wasn't too sure just what she would do.

We crossed a bridge over Timber Creek just a ways from the picnic area and followed the creek along the hillside for a couple of miles or so. It was fairly easy going and all seemed fine to Valerie. At the point indicated on the map, the trail headed directly up the mountain with a series of switchbacks. Esther and mom said, "This is a good place to stop until you and Valerie return." Celeste looked at the hillside we were about to start up and said, "I think I'll wait here with mom and grandma". I don't know how tired she was at that point but she was smart enough to avoid what was coming.

It was about two or two thirty in the afternoon when Valerie and I left them. It was pretty steep going for the next half mile but soon we broke out into a beautiful mountain meadow. We saw a couple of back packers moving along on the

main trail. However, a sign pointed to our destination, which took us to the right high up the hillside from Timber Creek. It was easy going through the meadow and we moved right along. Valerie was a good hiker. I saw snow up ahead in the trees but couldn't tell how bad it might affect our route. I pointed this out to Valerie and asked if she wanted to continue. She was in shorts but I had on my usual Levis. Of course, she said yes and on we trudged.

Soon we approached the trees and the snow. The trail had disappeared but I could tell the general direction we needed to travel and chose the easiest route. The snow was 3 to 4 feet deep between the trees but the ground was bare right around most of the trees for a couple of feet. I made my path between these bare spots but would sink to my hips in between. Valerie was freezing and once again I asked, "Do you want to turn around"? She let out an emphatic no, saying, "We have come this far and I want to see the lake". I suppose we fought the snow for a half-mile or so before coming up over a rise where we could view the lake. It was a glacial lake and lay in a grassy cirque surrounded by high rocky walls. It was pretty but I question the worth of the hike. We walked over to it and sat on a log while we rested. It was now about five o'clock. The sun was ready to drop behind a nearby peak and I knew we needed to be on our way. Valerie wanted to stay longer because she said, "It was so much work getting here and I want to enjoy it for a while".

We stayed about half an hour before I insisted that we leave. After all, it was five miles back and would soon be getting dark. We followed our tracks back in the snow and made good time, arriving at the family about seven. They were ready to go. Everyone was hungry, which also spurred us on. After a brief rest, we headed down the trail. Tom, who was about 6 ½, had played hard. He was tired and began to fuss and cry. I could see we would be forever getting back with him walking, so I put him on my shoulders and away we went. I was already rather tired myself but that next 2 miles with him on my shoulders just about zapped me. I was pooped by the time we arrived at the car.

We ate what lunch was left and headed up over Trail Ridge Road. It was still light enough to enjoy the scenery but I didn't slow down except for the curves. Mom exclaimed over the view, which is exceptional. It is relatively level on top after rising to above 12,000 feet. Then it drops rather quickly down into the Big Thompson drainage and Estes Park. It was dark by the time we passed through Estes Park. We didn't slow down but continued on down the Big Thompson to Loveland and eventually I-25. Was I glad to see the interstate or was I glad. The long day coupled with a ten-mile hike was catching up with me. Everyone else was snoozing while I drove and I found it difficult to

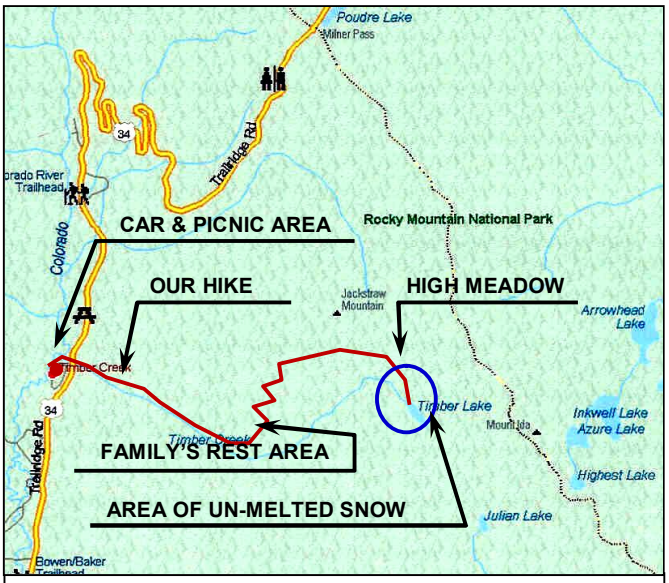


Figure 14-13 A map of our hike to Timber Lake lying just below the continental divide.

stay awake. The trip into Denver seemed to take forever and then we had to get to the south end of the city. However, we arrived home around 9 or 10 and piled out of the car. I don't even remember unloading the car that night. What a day! I slept like a log dreaming of Valerie and me tramping through the snow. I never asked her what she might have dreamed about but I remember her complaining of sore muscles the next couple of days.

CAMPING IN THE SNOW IN JULY

In the spring of 1971 I had scheduled a week's vacation for June. Having been cooped up all winter, we wanted to go camping. Everyone liked that idea, including me, and it fit my pocketbook. I probably should have known better because weather in June is so unpredictable but I was kind of an optimist, I suppose. The good Lord would surely provide nice weather for such a well-deserved family outing. June was rainy and I kept postponing my vacation. I knew that camping out in such weather would be miserable for all of us, rather than providing the relaxation we wanted.

I had to get it in before the fourth because others had scheduled vacation and we couldn't all be gone at once. I had about resigned myself to taking a week to work around the house, heaven forbid, when the weather turned nice. It was late in June, the last Saturday as a matter of fact, when we packed up and hit the road. I had decided to try my luck at fishing on the headwaters of the Gunnison River. Though I had never been there, there seemed to be several camping spots in the general area, as seen in figure 14-14. The route to the campsite and that of the return trip are colored differently for reasons you'll soon understand. Things just didn't turn out as expected, that is, Murphy's Law applied as it seems to in so many cases.

I worked through Friday and consequently didn't get ready to go until about noon or maybe a little later. It was 120 miles to Bueno Vista or so and another 90 to Gunnison. From there it would be about 30 miles to our camping area. Considering the highways, the continental divide and distance, it would be a good five-hour trip and maybe more.

As I scanned the map, I changed my mind and decided to go in over Cottonwood Pass, which would save 90 miles and at least two hours. The road over Cottonwood was dirt but not of a four wheel drive nature, so I wasn't worried. We

Figure 14-14 A map of our outing to the Gunnison Reservoir area including routes to and from our campsite.

got to Bueno Vista around 4 PM, as I remember and after a rest stop, headed up over the pass towards the general area of the Gunnison Reservoir. I was equipped to camp anywhere with tent, folding table, gas stove, etc. The road

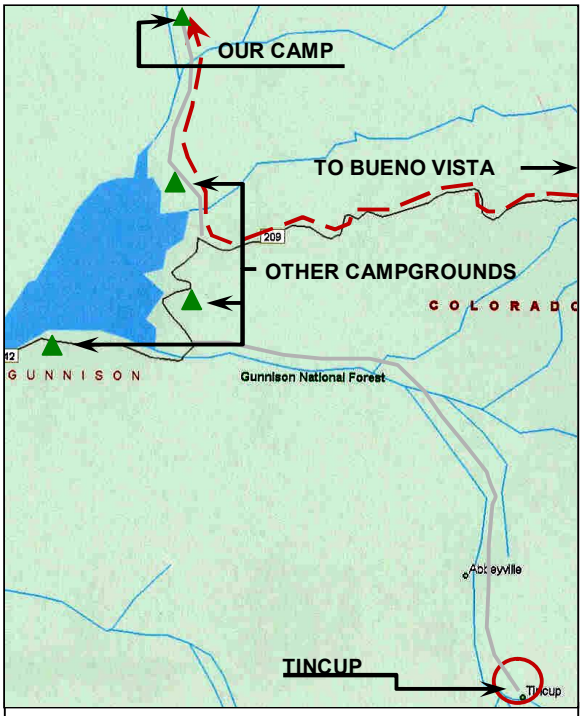


Figure 14-15 An enlargement of the area around Tincup where we camped.

leading over Cottonwood is now called Colorado 306 and turns into Colorado 209. Though I don't remember their designation at that time, I do remember the condition. CO 306 turned to dirt a few miles out of Bueno Vista and became strictly one way. It was still a decent road, however, as we moved up towards the pass. It was slow going because of the narrow twisting nature of the road. A few scattered showers began to occur but they didn't seem too threatening. About an hour and a half later we reached the top and started down the other side. The road became much rougher and steeper. It was getting dark and somewhat difficult to see very far ahead. I suppose it took another couple of hours to get to the reservoir but I'm not too sure of that. I do know it was late, 8 or 9 o'clock, when we arrived there. I decided to just find a decent camping spot and maybe hunt for something better the next day. Soon we spotted a place on the left, pulled in and set up camp (See figure 14-15). It was a rather crude campsite but had water and

a John while the other essentials were in the wagon. I unloaded and began to set up the tent. A few flakes of snow were falling but I assured Esther that there wouldn't be any significant amount. Even so, any accumulation would surely melt the next day. With the tent up I started the gas stove and heated water for hot chocolate. That would be a fitting conclusion for the day. The snow quit before we went to bed and we soon snuggled in our sleeping bags. I didn't hear a peep all night from anyone. When I awoke, I noticed the tent was sagging a little. I peeked out and was greeted by a winter wonderland. About four inches of snow had fallen during the night. I jumped back into bed and decided to let the family sleep as long as possible. I wasn't sure that I even had a desire to try and fish.

By eight everyone was stirring and soon talking about the snow. However, it was clearing off and looked like it would turn into a nice day. I told them to stay in bed until I got a fire going. With that accomplished, I lit the gas stove and started breakfast. Everyone was hungry. The hot food and particularly the chocolate went over big and seemed to cheer everyone up. We talked about what we should do while the snow was melting. A trip along the lake seemed in order and we would go into Tincup, a tiny town to the south a few miles. Maybe we could find a small store or something. Hopefully, the evening would be nice and things would be dried out back in camp when we returned. This freak snowstorm would then be history.

With breakfast over and the dishes done, we jumped in the Dodge and started out for Tincup. Our first surprise was the greasy nature of the roads. I was used to mud but this seemed particularly slick and I had to be careful as we negotiated our way to Tincup. As it turned out, it wasn't worth the effort. At that time it appeared to be a ghost town with no one around, let alone a store where we could buy a few goodies. We moseyed back to the reservoir and headed to the south end towards Gunnison. There were no campers around. Even the fishermen had more sense than to be out on a day like this. We checked the various campsites but found none that were any better than what we had. Being optimistic we headed back to camp to play games and conserve our energy for the next day, which was sure to be better.

By evening all the snow was gone and it looked like dad was right. It was clear and tomorrow things would dry out. After an evening of games and hot chocolate with a few marshmallows thrown in, we headed for bed again. We slept

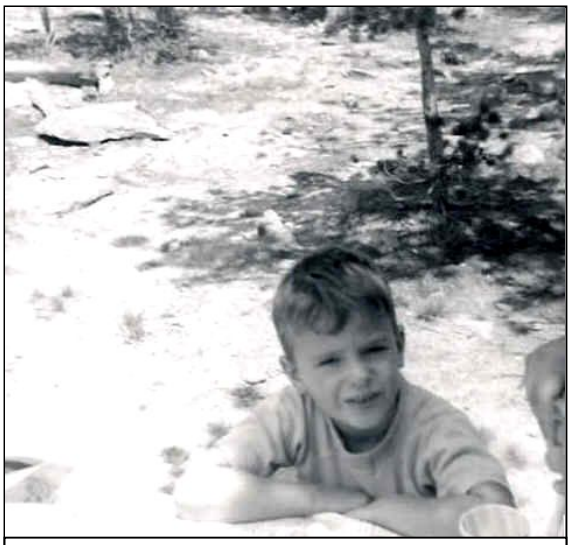


Figure 14-16 Tom wondering when breakfast or maybe lunch will be served.

comfy and cozy without a care. Tomorrow was another day. The next morning I woke up and couldn't believe my eyes. The cotton-picking tent was sagging again. That could only mean one thing, snow. I peeked out the door and once more was greeted by 4 to 5 inches of snow. I couldn't believe it. To validate the

Figure 14-17 Tom surveying the snowy wonderland in which we were camped.

situation, take a peek at figure 14-16 and figure 14-17, with Tom questioning just what we were doing here. Well, I was beginning to wonder myself. It cleared off again and once again our

spirits soared. "Maybe this rotten weather was finished", I said. "We'll stick it out another night". After all, I had a whole week off and didn't plan to return to Denver until Friday or even Saturday.

The second day we tried to vary our routine but, quite frankly, there's only so much you can do in a snowy landscape with only a tent for protection. Oh, it was warm enough during the day but sloppy as a pigsty at dinnertime. I fished a little but the kids were bored and kept after me to do something with them. Tom went with me for a while during my fishing episode but he managed to keep me busy doing other things. Soon we were back at the tent. We went for another sight-seeing trip but nothing had changed, i.e. no new campers. Yep, things were still quiet around Tincup, Colorado. It isn't very exciting after a snowstorm, in case you are wondering. Well, we endured another day with hope for a better tomorrow. The snow had melted once again and we hoped for a change of fortunes. Finally evening came and we repeated the routine of the previous night. By 10:00 PM we were all tucked in. I think the girls read a little by flashlight but everyone else drifted off to sleep.

I pointed to the area and told Esther and the kids, "That's where we were camping. Would you like to go back"? An echoing and thunderous "NO" ricocheted back and forth through the car.

Well, when I awoke, for some reason, the sagging tent roof didn't surprise me. I looked out and observed the same scene as the previous morning. By the time breakfast was finished the white stuff was already melting. The tent was soaked and I knew it would be a mess to pack up and go home. Besides, I would have to lay everything out to dry before putting it away. We talked about the situation. The kids were ready to go home as was Esther. I figured a day driving home would be more interesting than trying to entertain three kids at Tincup, Colorado. I packed up a wet and dirty camp and by 10:00AM we headed out. With the roads in the condition they were, I didn't want to go back over Cottonwood Pass, so I headed for Gunnison. Even so, we fought the mud for some distance south of the reservoir, as I remember, until finally reaching gravel extending on into Gunnison. Our route is shown in blue in figure 14-10. We arrived around noon and grabbed a burger, drink and fries. It was a pleasure to eat at a drive in after our experience of the last three days. No mud or dripping trees and we could find comfort in shirtsleeves.

By now it was sunny and clear once again and we headed over Monarch Pass on a real paved road, US 50. For ten miles or so near the top of Monarch we encountered slushy snow covered roads with up to a couple of feet alongside the road or so it appeared. I was thankful to have decided to take this route over an 11,312-foot pass on a paved highway as opposed to a dirt one-lane road over 12,126 foot Cottonwood Pass. It was slow going over Monarch behind plows and assorted traffic. What would it have been like trying to negotiate an unplowed summit 20 miles to the north? Yes, I had made the right decision even though it may have been the only one of the trip.

We dropped down from Monarch to Poncha Springs and took a left up US 24 to Johnson Village and Bueno Vista. About half way up the 22 miles to Johnson Village, I became aware of a large cloudbank hanging over the mountains south and north of Cottonwood Pass. They had the ominous appearance of snow clouds preparing to dump another 6 inches of snow on our camping area. I pointed to the area and told Esther and the kids, "That's where we were camping. Would you like to go back"? An echoing and thunderous **NO** ricocheted back and forth through the car. They were pleased to be heading home where there was something to do, even if it was 3 days early. If nothing else, our camping trip had proved the old adage, "There's no place like home".

CHURCH RELATED EXPERIENCES

As I indicated on the map of figure 14-1, our ward building was some distance away. We would take Washington to Arapahoe Road, turn left to Broadway, then right or north up through Englewood to Tufts Avenue where we took a right to the church. It took about 20 minutes on a Sunday morning. There were two wards housed in the building with one meeting at 9:00 AM and the other at 2:00 PM. I think we finished 1969 out in the afternoon and went through 1970 in the morning. I say that because in 1971 I was transferred to Casper and remember finishing up some painting on Sunday so we could sell the house. Valerie and Celeste were chagrined to see dad on the roof, not just staying home from church but painting on Sunday. What if some other members saw him? I couldn't have cared less; it was necessary.

TEACHING 12 YEAR OLDS

I don't know whether kids have become more hyperactive since I was that age or I simply forget my own twisting and turning in classes. The lessons are well designed to capture a kid's attention. They include various activities and games, which teach the gospel principles selected for each age group. I was very conscientious and plunged into the calling with vigor and enthusiasm. Before long, I began to doubt whether I was very effective. The kids were constantly squirming, talking to themselves or irritating others. I spent as much time in trying to quiet them and disengaging conflicts as I did teaching. Even so, when I would conduct a little test to gauge their retention, I was amazed at how much they seemed to understand the material presented. I had expressed concern to the Sunday school president and was assured all seemed to be going well. When I finally left some 18 months later, I could hardly say I had been fulfilled by the experience but both the Bishop and Sunday school president complemented my efforts. I'm not sure they were deserved, even to this day but I assume they were sincere and not just an effort to make me feel good. In any case, I had learned a little more about kids of 11 and 12.

The kids were constantly squirming, talking to themselves or irritating others. I spent as much time in trying to quiet them and disengaging conflicts as I did teaching.

ESTHER'S CALLING

I'm not sure whether Esther served in more than one calling during our stay in Littleton or not. I only remember her serving as ward librarian for a considerable time. She seemed to enjoy that calling and spent a good deal of time setting up a new system and making sure it worked. She felt equal to the calling and seemed to thrive in it right up to our departure. At times, she would become exasperated with people that wanted to perform an end run around the rules provided to govern its operation. She seemed to really appreciate the bishop and his counsel from time to time. He was an excellent people person and always drew the best out of people in the ward.

SEMINARY

Celeste and Valerie had both attended early morning seminary in Rock Springs. Celeste had completed one year and Valerie three before our move to Denver. Fortunately for us, the Church had rented space in a bank building on Broadway to carry out this particular activity as noted on the map of figure 14-1. It was probably less than a mile away from home. Valerie completed her fourth year while Celeste must have completed her 2nd and 3rd years while living there. They had to get up early, of course, to be at seminary about 6:00 or 6:30 AM. They were released just in time to get to high school. Such activity taught them discipline, as well as many principles of the gospel. It also taught parents the virtue of patience while trying to help them accomplish these early morning sessions on a regular basis. I had to leave for work by 7:00 AM and, I suppose, Esther picked them up and took them to school. Such details escape this old brain of mine. As I indicated earlier, Valerie probably drove to and from seminary in the latter part of the year. She or Esther would remember such details better than I. I wasn't the least bit unhappy to be excluded from the activity.

Celeste took drivers education as well while in Littleton. She reminded me that she had to drive to down town Denver as part of her training. I may have Valerie's experience confused with Celeste's but that wouldn't be unusual. In any case, they were both driving by the time we left Denver.

A CHOICE EXPERIENCE FOR TOM

One of Ezra Taft Benson's daughters attended our ward in Littleton. I forget her married name but Elder and Sister Benson visited them and attended our ward one Sunday. Elder Benson was a member of the Twelve at the time, early 1970 I would guess, and probably Joseph Fielding Smith was the prophet. As you may remember, Elder Benson had been the Secretary of Agriculture during Eisenhower's two-term administration. Tom had just turned six. As Elder Benson passed Tom in his departure from Sacrament meeting, he patted him on the head and stopped to talk to him a moment. Just before moving on, he said something like, "And what will you do when you finish high school"? He was always encouraging the youth to fill missions. We were surprised when Tom retorted, "I'm going to go on a mission". Well, Elder Benson was pleased and of course, mom and dad as well. Kids don't always give the right answer at critical times; that is, and an answer that is complementary for mom and dad were more than we expected. It was as though we had primed him for the meeting with the Apostle.

DUTIES OF A DIVISION ENGINEER

The Division Engineer is usually considered the foremost technical expert on equipment in the division and is part of their staff. Thus, he reports to the Division Manager and correlates his work with that of the Division Sales Manager and other division personnel. His duties include putting together an equipment budget on an annual basis or sometimes more frequently, getting involved in unusual equipment problems and acting as a technical liaison between division and Houston Headquarters, providing technical training for instrument technicians, managing a minimal division technical staff, overseeing the introduction of new field services in the division and helping provide technical testing for advancing field engineers.

The duties usually include frequent visits to the various field locations for observation of technique including repair and field operations. Consequently, a good deal of travel is involved within a wide spread division such as the Southern Rocky Mountain Division as well as regular visits to Houston. It is a demanding job in terms of time and physical effort but then most jobs in Schlumberger are. I was excited about the opportunity and felt my background and natural talents fit this assignment better than any, except maybe, that of a field engineer, wherein no one could survive for a complete career.

He would run the job and I would stay out of his way until he needed a little help. Then I would step in the truck, provide help as needed and go back to my car.

TRANSITION INTO MY NEW JOB

When I arrived in Denver in 1969 the office was located in the Mile High Center on 17th and Broadway. There was still a Rocky Mountain Area office a couple of blocks away. They had a small computing center, as I remember, to which Hank Valentine, my predecessor, had been transferred. Its capability was minimal and most computations were still done by hand including the dipmeter. Computer input was via punch cards while programs were few in number and of somewhat questionable results. An engineer still visually averaged data for input through zones of interest and tabulated it for the cards. Results were presented to the customer in tabular form rather than graphical, I believe. Soon after this time, however, we began recording dipmeter data on magnetic tape as well as film and eventually such results were obtained only through computer correlation.

I reported to the Division Manager, Frank O'Brien as did the sales manager, Jim something or other. Maybe I'll come up with his name later. By this time we had five districts in the division, namely Fort Morgan, Farmington, Grand Junction, Vernal and Rock Springs. The latter district had been switched from the Northern Rocky Mountain Division just a little prior to my move there in 1965. The NRMD still had 5 districts and a station at Cutbank, my old stomping grounds. I don't believe I made the rounds of the district with Hank because I was relatively familiar with them but he did brief me on problems and procedures. As a result I got the hang of it rather quickly.

Initially, I had to break in my replacement, Ben Irvin, at Rock Springs. Besides showing him around the district and visiting various customers, I also had to help him make the transition back to the field. You'll remember I regularly filled in for engineers for days off and/or vacation. Well, Ben had been serving as a salesman in Oklahoma for several years and had forgotten much of his field experience, not to count the changes that had been made after he left. He took it in stride, however, and I both briefed him on various techniques and made a few jobs with him. He would run the job and I would stay out of his way until he needed a little help. Then I would step in the truck, provide help as needed and go back to my car. Initially, it was time consuming but after a week or so he was on his own and things seemed to work out with only a question here or there to answer.

There was a Division Center located in Farmington, New Mexico on the same land as the district building. It consisted of truck and instrument shops with a division mechanic and division instrument technician located there. They were well founded in their particular fields and provided help with aggravating problems division wide. However, their main responsibility was to provide service for the district. Farmington still operated 4 trucks, three loggers and a perforator. Consequently, I made regular trips there, usually by air. Vernal ran sophisticated logging programs besides having a perforating truck. That location also became a regular stop for me. Often I drove because of field involvement and the fact that air connections weren't too good. I often stopped in Rock Springs on one leg of the trip, going over

the Uinta Mountains. Grand Junction was a one-truck location by that time and required little assistance. They had an experienced engineer who was proficient in the field. That left Fort Morgan, which operated three trucks. They had a competent instrument technician as well as a mechanic. Their instrument problems were few and far between in that the logging environment was not particularly hostile and the typical services rendered were relatively simple. I visited from time to time, however, for engineer training purposes and helped the manager prepare engineers for division exams. I would also check in with the instrument technician and discuss any ongoing problems that he might be experiencing.

SOME MEMORABLE EXPERIENCES

POTENTIALLY AN EXPLOSIVE SITUATION

One summer on a Thursday afternoon, while visiting our office in Vernal, Utah, they received a phone call from the manager in Fort Morgan. Fort Morgan needed a couple of cases of perforating charges for 4" guns the following week. Vernal could spare the explosives but transportation was a problem. The two locations are roughly 400 miles apart, which was a 10-hour drive each way through the Rockies. Both locations were extremely busy and neither had an extra hand to make the round trip. Likewise, they couldn't even figure out a way to meet each other with the charges. To send them by hotshot or a commercial transportation service would cost as much as the income the job would produce. Yet, they needed to take care of the customer. The Vernal manager suggested I might help, knowing I planned to return to Denver the next day. I agreed to stuff the two cases of charges in the trunk of my car and haul them to Denver where they would pick them up on Monday. Though it wasn't really legal, it was relatively safe and solved the problem.

The first thought that came to mind was a visual image of a mushroom cloud behind me as the charges detonated from the impact.

The next morning, I picked up the charges and headed for Denver, arriving at the house around suppertime. I went about my weekend business with no particular concern for the explosives because they were locked in the trunk of the car and only I knew about them. I hadn't even mentioned it to the family. I called Fort Morgan and made arrangements to meet them at the office on Monday where I would transfer the explosives to their vehicle in the parking lot a couple of blocks away from the office. No one would ever know the difference but Fort Morgan and yours truly.

Monday morning came and Valerie had some work she needed to get done in the Denver public library. She asked if I could drop her off there for the day and pick her up that night when I came home. That was simple enough and we headed out with no one but me knowing about the charges. I circled by my parking lot and headed for the library a few blocks away. My office was at 17th and Broadway and the library was located at about 14th and Broadway. One block from the library I stopped for a red light. After being there, maybe a minute or so, a car rammed us from behind, knocking my car clear across the intersection. The first thought that came to mind was a visual image of a mushroom cloud behind me as the charges detonated from the impact. Fortunately, my imagination was more vivid than was reality. The probability of detonating the charges in such an accident is extremely remote. Even so, I could see the newspaper headlines chronicling the demise of Valerie and me in a horrendous explosion rather than a simple car wreck. Well, the supports on the front seat broke from the impact and Valerie and I found ourselves lying on our backs in the car when it came to a stop on the other side of the street but the anticipated explosion failed to occur. God was good to us.

Fortunately no traffic was moving through the intersection and our sudden acceleration across it didn't involve another vehicle. I pulled myself up from my prone position, got out and went back to the driver behind me. A kid about 17 was driving by himself and all he could say was, "Was that light red"? Obviously, he had been half asleep or totally inattentive. I looked back at my car and saw the explosives in the trunk staring me in the face. I quickly realized their presence could raise embarrassing questions by an investigating officer visiting the scene. The trunk wouldn't latch and stayed half open. I hurriedly raised the lid, took my sleeping bag out, unrolled it and covered the two cases of charges. As I lowered the lid to its half open position I heard the sirens and soon a cop was on the scene. He quickly ascertained the situation, wrote out his report without looking in the trunk of the car, ticketed the kid, asked if Valerie and I were OK and left. Neither Valerie

nor I were apparently hurt by the incident nor did we later feel any later effects from it. Maybe the collapse of the seat back helped.

We were fortunate to say the least but now I had to get the car out of the way. I righted the seat, which wasn't secured to the floor now and slowly drove with Valerie on over to the library. From there, I moved the car to my usual parking place where I secured the trunk lid with a rope and went to the office. I reported the problem, filled out the necessary accident report and made arrangements for a rental car. About then the transport driver from Fort Morgan came in. He was parked in a nearby lot. We climbed in his pickup and drove to my parking lot where I transferred the two boxes of charges. He now properly displayed the explosive signs on the pickup and headed back home. I spent the remainder of the day stabilizing the front seat

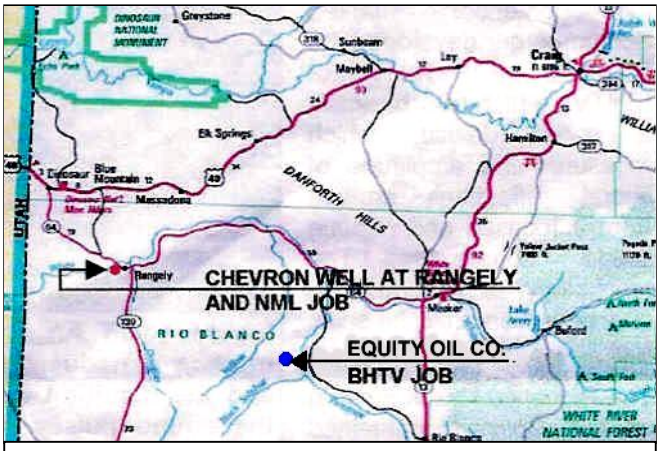


Figure 14-18 A map of western Colorado with the location of both the BHTV and NML jobs in 1970.

with a rope, getting the car into a repair shop, picking up the rental car and finally returning to the library for Valerie. What a day it had been.

The frame had been bent on the car and the body slightly compressed from the impact. Though drivable, considerable damage had been done and the body shop took a little over a week to complete the repairs. As the week wore on, it became apparent that neither Valerie nor I had suffered any apparent injury. Thus, when the insurance agent for the other party called to make a final settlement, he seemed pleasantly surprised when I only asked for the cost of the rental car and the repair to my company car. I feel sure he expected the claim to include some kind of cost for treatment of whiplash or worse. I couldn't believe we came through the accident so well but time proved no injury had occurred.

AN NML JOB, A HOUSTON VISITOR AND A SPRING SNOWSTORM

The Nuclear Magnetic Log or NML, as it was called, was somewhat of an experimental service and was used almost exclusively by Chevron Oil Company in their Rangely, Colorado field. The measurement principles were developed and patented by Chevron but they gave Schlumberger the right to develop a field worthy tool. The technical demands of the service were significant in that it took a massive polarizing current of several amperes to align the free Hydrogen atoms with the polarizing field as well as an extremely sensitive receiver capable of discerning the microamperes or millionths of an ampere produced by the free hydrogen atoms. The decaying magnetic field of those same atoms as they re-aligned themselves with the earth's magnetic field was of that magnitude. You may remember from chapter seven that hydrogen atoms in nature may exist in a free or movable form in fluids like oil and water or in a secure immovable state in solids such as shale or clay. The device differentiated between the two modes and recorded a measurement termed the "Free Fluid Index". In addition, the initial signal strength was also recorded along with a gamma ray curve, which was used to correlate the log to other measurements. Chapter seven has a lengthier discussion of the principles.

Houston engineering was making some changes in the tool with an aim towards upgrading the quality of the measurements. They had installed these changes in the tools at Vernal and wanted one of their engineers to observe a field operation. Arrangements were made to send a man up when Chevron made their next job at Rangely. I was to attend as well so as to be better informed on the tool's operation.

Sometime later, the job was placed on will call to be run a couple of days later. I headed for Vernal for a routine visit and to observe the job. The Houston engineer whom I'll call Bob (his real name escapes me) flew into Vernal and I picked him up at the airport. It seems to me we spent the night in Vernal and the next morning at the shop going over the tool that would be used. Later that afternoon we set out for the well, arriving about 6:00 PM at the well in Rangely. See figure 14-18.

The truck and field engineer were already on location running the preliminary logs. I think the usual logs included a resistivity device as well as

a Formation Density Log (FDC) and a Sonic GR Log (SGR). The formation involved (the Weber) was thick sandstone with varying amounts of clay and dolomite laminated within it. The field was an old one having produced numerous barrels of oil over the years. Because of the varying lithology within the formation, the major concern was how to drain the field most efficiently including secondary recovery through a water flood. Defining the permeable zones was the task of the NML.

Soon after we arrived, the logging crew was ready to run the NML. During the calibration and early stages of the operation the engineer from Houston stayed locked to the recorder watching the results of the modification. After viewing the early stages and discussion of the ongoing calibration and operation, I left the truck cab for roomier surroundings.

When the log was finished and the crew was retrieving the tool from the well, Bob, the Houston engineer, stepped out of the truck and began gazing up into the heavens. It was a cloudless night and the sky was lit with numerous bright stars and constellations. It was moonless, as I remember, making the view all the more dramatic. I got out of the car, walked over to where he was standing and asked, "Bob, what's so interesting"? He replied, "Look at those stars. There are millions of them. I have never seen anything like this before. In Houston, even on a clear night, the sky is so filled with water vapor that a person can see very few stars, only the brighter ones." I hadn't thought about that before and realized we in the west take such beauty for granted. Then, I too took time to marvel at the number and variation of lamps lighting the heavens before us. There were bright, medium and fainter stars embedded in a background of pinpoints of light almost too faint to discern. Certainly the scene before me made me realize somewhat more fully the vastness of God's creations we call the universe.

"Look at those stars. There are millions of them. I have never seen anything like this before. In Houston, even on a clear night, the sky is so filled with water vapor that a person can see very few stars, only the brighter ones."

After the job we headed back to Vernal and our motel. By morning the skies were clouding up. We stopped by the office to visit with the manager, discussing the previous night's operation. I offered Bob a ride to Denver where he could grab a flight to Houston. With weather moving in, there was some question about the late afternoon flight coming into Vernal actually landing. Bob could be left in a lurch. He accepted and soon we were headed for Craig, Colorado, about 120 miles to the east. Little did he or I know about what lurked ahead in the Colorado Rockies.

Though cloudy, it was clear sailing all the way to Craig where we stopped for lunch. However, it began snowing soon after leaving Craig, around Hayden, and continued the rest of the trip. At first it wasn't bad because the snow was melting on the road. By the time we got to Steamboat Springs, however, it was sticking to the highway. The plows were out going over Rabbit Ears Pass, which is almost 10,000 feet high. We still moved along at a good clip. Traffic wasn't too bad.

By the time we arrived in Hot Sulphur Springs, some sections of the road were still unplowed and there was a considerable accumulation of snow on the road. Also, the traffic began to pile up with some drivers being overly cautious. I'm sure I was a little more daring than the average driver, having spent numerous hours on snowy roads throughout the west. I passed several cars on straight stretches as traffic permitted. I noticed my passenger holding on tight. He was obviously uncomfortable with the situation, having never experienced snowy roads. Even so, I pressed forward because it was getting late in the afternoon and I still had Berthoud Pass to negotiate. Remember, it is over 11,300 feet and I wanted to clear it before dark. The 125 miles from Craig to Granby took about 4 hours as opposed to the usual 2 ½.

We decided to take a break in Granby and eat. We didn't waste a lot of time but it was probably six PM by the time we left. It was roughly 50 miles to the Interstate I-70, which includes Berthoud. In good weather it would take easily an hour and a half considering the traffic. Well, the snow didn't let up and around eight we were nearing the top of the Pass. The plows were at work but many segments of road had a significant amount of snow. Most of it had been sanded, which helped a lot. At that time, there were few guardrails and, though the road was a good two lane, the drop along the edges of the road ranges from less than a hundred to several hundred feet. It made me; an experienced

driver in such conditions, a little nervous to realize a slick spot could send us over the edge like a luge or toboggan like ride down the hillside. My passenger was beside himself. His eyes were wide open as he sat rigidly glued to his seat. Fortunately, we were soon over the worst of it and arrived in Empire at the bottom of the hill. From there on into town the roads were well plowed and sanded all the way into Denver and we arrived around 10:00 PM. After dropping him off near the airport in a somewhat more relaxed state, I headed for home, family and a good night's sleep.

RUNNING A BOREHOLE TELEVIEWER

The Borehole Televiewer was a good idea that never was successful. It was born during the sixties because of the industry's infatuation with natural fractures. Several fields draining fracture reservoirs had been discovered around the country, including one in Farmington, New Mexico. It was felt that such reservoirs could be easily passed by but if they could be more clearly identified, they might be stimulated and provide significant oil and gas reserves. The amplitude sonic was the tool used in the first attempt at identification via wire line but such logs were not quantitative and could not define the type of fluid, which might be contained therein. It was quite effective in defining the presence of fractures through a drop in signal amplitude. The results were qualitative rather than quantitative in nature. Unfortunately, a change in borehole size and even sonde centering could produce similar results and

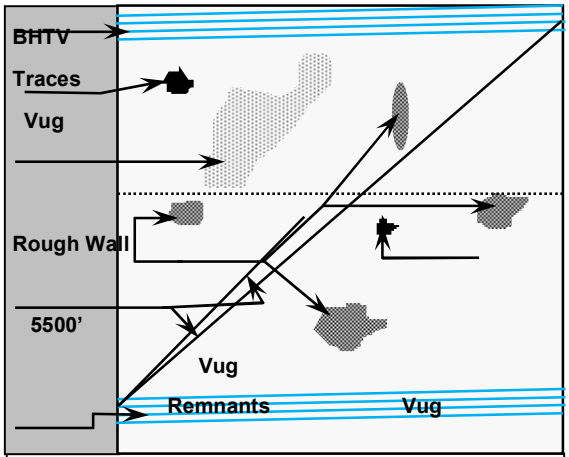


Figure 14-20 A simulated recording of a Borehole Televiewer log. Also fig. 7-40

though such changes could be controlled the log never became popular. In an effort to tap this potential market, Schlumberger developed the Borehole Televiewer or BHTV, which is a sonar device, designed to measure the amplitude of

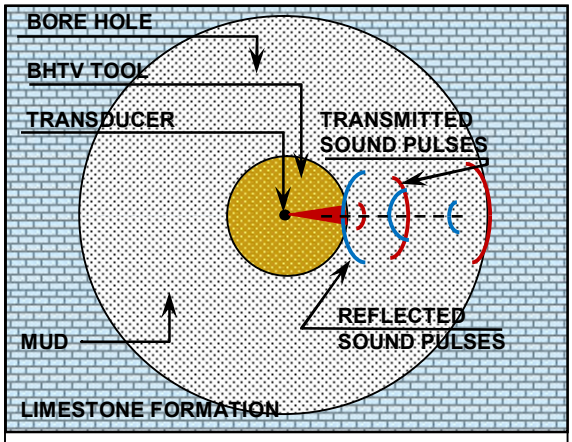
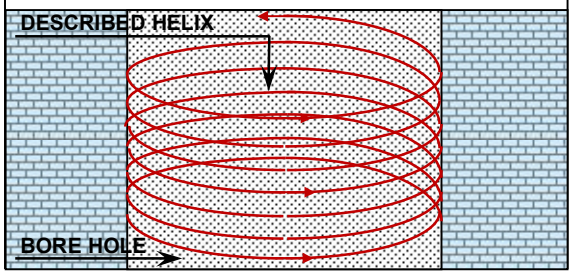


Figure 7-39 An illustration of the rotating transducer of the BHTV tool and the resulting helix described by the sound pulses striking the borehole wall as the tool moves upward.



sound reflections emitted from a focused and rotating sound source. The technology is described in chapter seven with the sonic.

The Piceance Creek Field in western Colorado contained thick beds of a low porosity sandstone, which was gas bearing. Hydraulic fracturing had been used to stimulate the reservoir in hopes of deriving economical gas production and, in fact, there are some such wells in the area. Equity Oil, one operator in the field, decided to run the BHTV on a well to help identify natural fracturing in zones of interest. They could then place their later hydraulic fracturing efforts more effectively. The BHTV had been out for a couple of years with a specialist engineer assigned to it but never got off the ground. Such devices, requiring a specialist operator and often a specialist engineer, might be kept around to service a limited market if the venture was or would become economical. However, if the device didn't eventually become profitable, it would be dropped from the services offered by Schlumberger. At this particular time, the BHTV

was on its last ropes. It was still available with a specialist operator but, as it turned out this day, there was no one to run it. The engineer that had been assigned was either on vacation or on some other assignment. Anyway, the job came in and I was asked to run it. After all, the division engineer is supposed to be an expert on all tools. Though I was familiar with the tool, I had never made a job with it before and admittedly was a little apprehensive about the whole thing. Figure 14-18 identifies the location of the well on the west side of Piceance Creek.

I met the truck and crew at the well site, as did the specialist operator with the BHTV. They had two or three other logs to run before the BHTV. I had already reviewed the operating instructions including such things as tool configuration in the borehole. While the regular crew was running other logs, I talked with the specialist assigned to the tool and became more familiar with the panel and the various procedures involved. Before long they were ready for our service and we rigged up.

Everything worked fine. We dropped to bottom, checked calibration and began logging. I found the worst thing about the job was the slow logging speed. As I remember, we logged at about 600 feet per hour, which requires double reverse on the logging unit. By that I mean the main truck transmission is placed in reverse along with the winch transmission. This results in an upward movement of the winch at the slowest possible speed. The slow travel of the tool is necessary to get a quality picture of the borehole wall. You see; tool speed determines the distance between spirals of the helix described in chapter seven and thus the vertical definition of the scan the tool is able to provide in the resulting picture.

Figures 7-39 and 7-40 are reproduced as figures 14-19 and 14-20 respectively to help you visualize the sonar picture taking process. You'll notice that in the top section of figure 14-19, the sound pulse is transmitted and the reflected wave received by the same rotating conical transducer in the sonde. If one plotted the path of the sound pulses impinging on the borehole wall, the described course would be as illustrated in the lower section of that same figure. The strength of the reflected signal depends upon the smoothness of the borehole wall. Wall rugosity, due to vugs, fractures, etc, tends to decrease the reflected signal while a smooth wall provides maximum signal. This reflected signal amplitude is then recorded on film in varying gray shades as depicted in figure 14-20. The traces of figure 14-20, labeled as BHTV traces, are not really visible as shown in the figure for explanatory purposes. Because of the slow speed of tool movement and recorder, they lay side by side and merge to provide a picture much like a TV screen. Each trace represents one pass of the rotating transducer around the borehole as illustrated in figure 14-20. The recording in varying shades of gray covers the complete borehole section logged and provides the geologist with a video picture of its wall. He then makes interpretations regarding its physical properties such as vugs and fractures. This helps the operator design a better completion.

As I indicated, the job was completed without incident and the customer received prints and film illustrating the surface of the borehole wall. He seemed satisfied at this time. Unfortunately, Schlumberger was unable to establish a dependable market of any size and the service was eventually discontinued. That job was the only BHTV job I ever performed but it helps illustrate the demands on a division engineer.

A DIVISION REORGANIZATION

In late 1970 or maybe the early part of 1971, Frank O'Brien was promoted and moved to Houston. A man serving as sales manager in the mid-continent division by the name of Cecil Tedrow replaced him. Soon after his arrival, the Northern and Southern Rocky Mountain Divisions were consolidated into one and called the Rocky Mountain Division. The Billings, Montana office was closed leaving only a single sales engineer to interface with customers. The division centers in Billings and Farmington, New Mexico were both closed and one set up adjacent to Casper in a little town called Mills. Bill Garbutt, the old Division Instrument Technician was selected to fill the division position and the two division mechanics were located in Farmington and Williston.

I was responsible for managing the division center activities including the Division Mechanics and the Division Instrument Technician. Only Bill Garbutt was located at the center. Managing responsibilities were minimal because all the personnel involved were experienced and self motivated. I had to direct their activities according to need. The mechanics might be sent to a district to conduct truck inspections or help with an engine over

haul. Similarly, the technician might be sent to a district to help with tool modifications or some perplexing tool problem. I now had responsibility for technical matters from Williston, North Dakota to Farmington, New Mexico. There was a total of 10 locations reporting to Denver, namely Farmington, Fort Morgan, Grand Junction, Vernal, Rock Springs, Casper, Cody, Cutbank, Havre and Williston. Cecil Tedrow, my boss, decided I would be more efficient if I were located at the center. Consequently, the next summer I was transferred to Casper, Wyoming.

RELOCATING THE FAMILY IN CASPER

We had lived in the Littleton area of Denver just over two years. The house was made of brick and was generally in good shape but I had a little touching up to do here and there. It wasn't convenient for me to take vacation to accomplish it and I began to paint the trim one Saturday. Of course, we had to sell the house and time was of the essence. Consequently, I decided to complete the job on Sunday. As I mentioned earlier, Valerie and Celeste thought such activity was terrible. I stayed home from church and, to make matters worse, climbed around on the roof where everybody could see me. We had other church members living in the area. What would they think? I was a little too practical to worry about that and placing the house on the market was my immediate objective. Besides, it wasn't unusual for me to have to occasionally go to the field on Schlumberger business on Sunday. To make a long story short, I completed my project without anyone in church knowing or even caring where I was that particular Sunday. Even so, my girls thought I had committed a serious sin by working on the Sabbath. It may not have been the proper thing to do but I've been guilty of far worse. If nothing else, the incident shows that Valerie and Celeste were paying attention in Sunday school class, which was somewhat better than I was doing.

RE HOUSE HUNTING

Denver is 280 miles south of Casper. Consequently, Esther and I decided to drive to Casper on our preliminary house-hunting trip. We stayed in a little motel on Center Street whose location I have designated in the map of figure 14-21. Notice said map is oriented 90 degrees off the norm with north being to the left.

One nice thing about house hunting in a place like Casper is that there aren't too many choices. Whereas we had spent several days in Denver deciding on a suburban area and a particular house, it only took a day to see everything in Casper. We checked out several areas and decided on a house near the church where schools with shopping were nearby.

It was a nice ranch style brick home with a full finished basement. The basement had a couple of bedrooms, a bath, and a large den with a fireplace as well as laundry and heating facilities. The main floor had three bedrooms, two baths, living room, dining area and kitchen with a breakfast area. It also had a covered

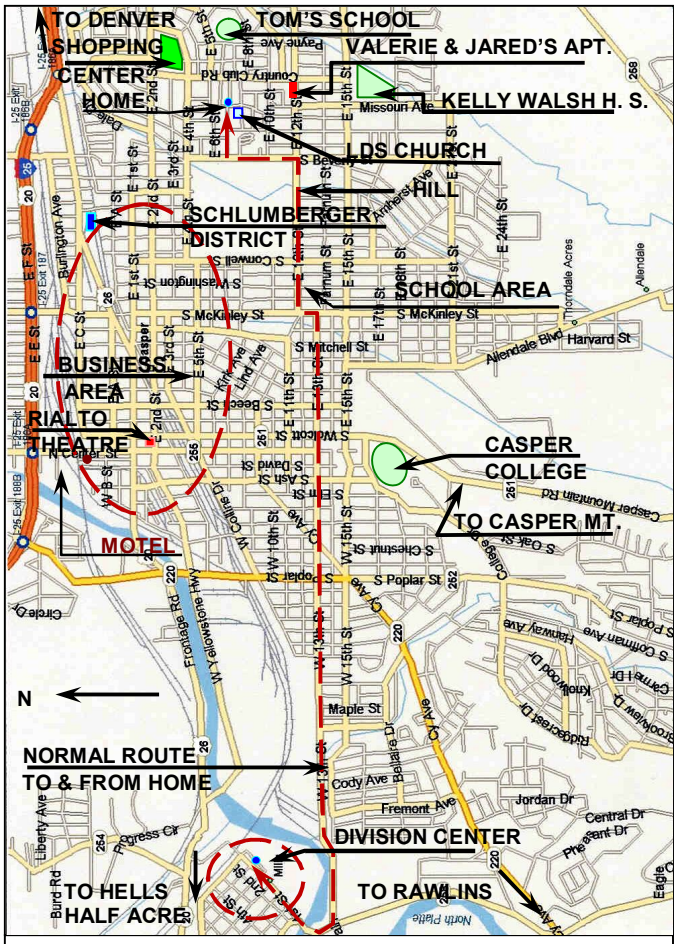


Figure 14-21 A map of Casper, Wyoming with landmarks & directions vital to the Obenchains.

patio, protected from the sun and wind, with Esther's clotheslines and a fenced yard in the back. Unfortunately, it was on the corner of Missouri Avenue and East 6th Street. I didn't like corner lots because of the difficulty of maintaining lawns and shoveling snow from

sidewalks. My Denver experience had established that particular distaste in my personality but I decided I could survive another tour of duty in such a location. After all, Esther liked the house as well as the location and, I must admit, so did I. We sold our house in Denver for around $30,000 and had to pay $45,000 for this one. Man, homes were getting expensive, or so I thought. Little did I understand what the future would bring, as inflation got out of control and brought chaos to the housing market. I would see housing prices double in 4 years

INTRODUCTION

The move, which took place a couple of weeks later, was uneventful. We hired North American out of Rock Springs to move us. We had really been pleased with their service in moving us to Denver. Once again they did an excellent job. I remember buying a new sofa and a couple of chairs for the upstairs. The old stuff went to the basement den. We had the mover pick up the new furniture at the dealers so it wouldn't undergo two moves. The mover carefully went over the new furniture identifying any marred places for his protection. I was amused. Here we were buying new furniture and he was already down grading it with his white glove inspection before it left the dealer. Actually, I had a hard time recognizing some of the, so-called, mars or scratches he picked out and didn't feel they were worth fussing over with the dealer. At least he was being careful and, hopefully, they would arrive there safely.

Figure 14-22 Our old Casper homestead as it appears in 2003 from the southwest intersection.

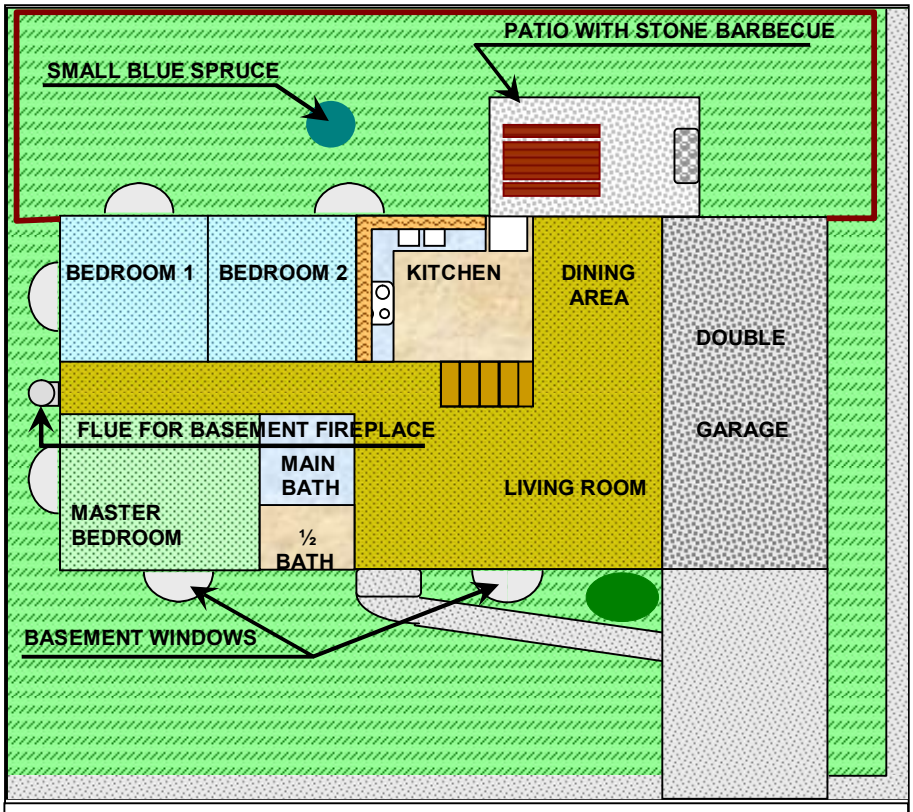


Figure 14-23 A floor plan of our Casper residence located on Missouri Avenue and sixth east. See figure 14-21.

The plan of our new but older house is illustrated in figure 14-23. I may not have it exact but I believe it at least bears some resemblance to reality. With a finished basement, we had more living space than we had ever experienced before. The large den in the basement provided a space that we used for a table as well as a nice family TV area. One bedroom downstairs was furnished for guests and/or Valerie when she came home from school. The only drawback was little or no daylight in the basement. That didn't really bother us then but I have learned since to appreciate daylight basements because of my

experiences with them since that time. Many homes in Georgia are built on a hillside and feature such a daylight basement, which is a definite improvement over past experiences, providing more livable space.

Figures 14-22 and 14-24 are photos of our home in Casper. Tom J. provided them. He and Julie took time to look over the old areas of Casper on a trip to Wyoming in the summer of 2003. It looks much the same except the surrounding trees have grown a bunch. In 14-22 we see that a tool or boat shed has been added and the large evergreen shrub next to the front window (shown in 14-23) has been removed. It appears that a cement drive now leads from the main drive to the back fence with access to the shed. A hoop for a little one on one basketball has also been added. The remaining grass between the drive and Missouri Street appears to have been replaced with colored rock. The fence looks much the same and the telephone pole standing on the corner is probably the original. The small blue spruce shown in the backyard of 14-23 now towers over the house as anyone can see. The view provided in 14-24 illustrates the size of the blue spruce even better and confirms the fireplace flue has been removed. The front yard trees of both pictures were there but very small in size. Even the house colors and the white

Figure 14-25 Celeste's Alma Mater, Kelly Walsh, site of many happy memories in Casper.

house next door appear to be the same. Considering that some 30 years have passed, few changes have been made. Well, I suspect both the houses have been painted a few times during those 30 years but at least the owners were consistent with keeping the previous ones. Whether that is a virtue or not, you decide.

BISHOP PERKINS' VISIT

The moving van was unloaded on a Friday, as I remember, while we were still in a motel. Of course, we were busy unpacking and arranging furniture the next day or Saturday. While being

Figure 14-24 A 2003 northwest view of our home in Casper. It is much the same as in 1974.

so engaged; the bishop of our new ward dropped by to welcome us. How he knew we had arrived is beyond me since we hadn't attended church as yet. His name was Bishop Perkins and he really impressed me with his interest and sincerity. We had never experienced such a prompt and personal welcome and really haven't since, as a matter of fact. He was especially friendly, describing some of the things to see and do around Casper and, of course, he invited us to attend the ward, Casper 2nd I believe, the next day (Sunday). Naturally, we had little excuse for not attending since it was just across the street (see the photo of figure 14-21). As it turned out, our days in that ward were some our most memorable. People were very friendly and both Celeste and Tom quickly found kids to pal around with. The next school year proved to be a wonderful senior year for Celeste. As mentioned, she made many friends and became a bit of a socialite, comparatively speaking. She still talks of the friends she made and the acceptance she felt.

THE KIDS STATUS

VALERIE

Valerie was attending BYU and only stayed with us until late August. We hauled her and her belongings off to Provo a few weeks later. Our big red station wagon was a godsend once again as we packed it full of more stuff she "just

had to have". I had to shake my head as I once again mentally compared her stuff to mine when I attended Oregon State College in the late forties. I thought, "I guess that's girls for you" but I suppose boys had a lot more gadgets to pack as well, even in those days, which now constitute only a memory in this old baldhead. Anyway, it demonstrates change.

CELESTE

Celeste would attend Kelly Walsh High School, a half-mile or so to the southeast. The school is shown in figure 14-25 and its location in figure 14-21. Unlike Denver, she quickly made friends and had her best year ever, at least socially. She also quickly made friends at church and was overjoyed with her new surroundings. What a difference between her move just before her senior year and Valerie's. I decided then that our girls were definitely the small town variety. I guess that was in their genes since Esther and I were of the same ilk. Esther was never comfortable in Denver and I much preferred the friendly atmosphere of smaller towns, which we had lived in most of our married life.

THOMAS JAMES

Tom would attend a school called Pineview Elementary, which was located just a few blocks to the east and is illustrated in figure 14-26. He was approaching seven but would begin the first grade there because his birthday is in December. I remember Esther taking him the first day. She also walked the few blocks to school with him during the first years. Later, Tom made the walk himself. I think he had a friend he walked with after he got acquainted. I remember the school being a stickler on checking for sore throats. At least weekly the kids filed into the selected area, probably the cafeteria, where they were subject to examination. It seemed Casper had the dubious honor of being the strep capital of the entire US. The exams were necessary to minimize the number of children so infected. Mothers participated with a nurse who had the final say whether a child was sent home or not. Children identified with the bug couldn't return until cleared by a doctor. Esther was involved from time to time with that duty. Although she never said, I think she enjoyed it because of her previous nursing experience and the connection it seemed to provide to the community. We lived in Casper almost 4 years, which allowed Tom to finish the fourth grade in school before moving to New Orleans in 1975. Like Celeste, he seemed to enjoy Casper and the friends he made while living there.

ROUTINE ACTIVITIES

As a family, we enjoyed Casper. The people were friendly, more so than Denver it seemed but probably we all just fit in better. Esther now

Figure 14-26 Pineview Elementary where Tom attended grades 1–4 while in Casper.

felt comfortable in driving wherever she pleased. Rush hour meant driving a little slower but one never experienced the traffic jams found in bigger cities such as Denver. She avoided the interstate on the north side of town, finding more calm and peaceful routes to her destinations. She shopped in any of the several centers scattered around the city and carried out her

Figure 14-27 The barbershop Tom and I frequented each month in down town Casper.

various church assignments, such as visiting teaching, without a problem. In short, Casper was the perfect town for her, not too big and not

too small. It had the additional quality of having friendly people in both church and society.

CASPER REVISITED

Tom and I would visit a small barbershop in down town Casper for our monthly haircuts. As I remember, it was on Center Street just behind the Rialto theatre next to an alleyway. See figure 14-27. In those days, I believe we paid two or three dollars for a cut. At that price, and the fact that I still had most of my hair, I didn't ask for a discount as was true some ten years later when we had moved back to Denver.

Figure 14-28 The Rialto Theatre where the family enjoyed many good movies and times.

There was nothing special about it but Tom sent a picture of it to me, which he had taken on a recent trip to Casper. It helps provide an idea of the small town flavor we experienced there. I had no idea it was still in business.

Next to the barbershop on the right, there used to be a men's clothing store, which I shopped in from time to time. On the right of it, on the corner of 2nd and Center was a little magazine shop, which was adjacent to the theatre itself. Figure 14-28 shows that corner in a shot from Center Street. It appears in the photo that the magazine shop has been replaced with some kind of discount shop and I don't see any sign of my favorite men's store either. I guess the theatre is still in business according to Tom's comments and the sign prominently displayed in figure 14-28. The map provided in figure 14-21 illustrates the theatre site along with various other landmarks.

Before I leave the subject of haircuts, I'll add a little story that took place in our local barbershop in Arvada, a northwest suburb of Denver. By that time, early eighties, most of my hair had flown or maybe been blown off by the Wyoming wind. I used to joke around quite a bit with my barber in Arvada and he returned the jokes in good humor. One time I said to him, "You know, I ought to get a discount on my haircut considering the little bit you have to cut". He retorted without a pause, "It's funny you should bring that up. As I was looking over your rather sparsely covered head, I was thinking more in terms of a 'Finder's fee'". Needless to say, that shut me up and we settled for the standard fee, which was $6.00 at the time. My motto changed from "cheapskate" to "leave well enough alone".

I might add here that Center Street was the in the center of the early business district, in an east-west direction, as one might suspect. Second Street was the main drag through the business district in a north-south direction.

CASPER MOUNTAIN

During good weather, we frequently went for a ride on Sunday afternoon. We enjoyed going up to the top of Casper Mountain (our route shown in blue), which is on the north end of the Laramie Mountains. Such a trip occurred only in the summer, of course. There's a state park located on top as shown on the map of figure 14-29. It's a great picnic area. People can camp there as well but there's little to do other than enjoy nature, i.e. hiking but no fishing, swimming etc. Consequently, it was always a day trip or sometimes only a few hours. In the latter case we usually followed the route shown in red, which involved state route 251, the Garden Ridge road and state route 220. Both drives were scenic and provided a relaxing Sunday afternoon. As one can imagine, there isn't a great deal to do if one follows church counsel and avoids commercial entertainment.

SUMMER JOBS FOR THE GIRLS

I was always after the girls to get summer jobs. I felt it was good for them to earn some of the money they needed to attend college. Valerie had finished her first year at BYU the summer we moved to Casper and Celeste still had a year

of high school. As I remember, that summer (1971) was shot with the move to Casper but I got serious the next spring. When Valerie got home from BYU, I had them looking. They came across an advertisement in the paper for help in the restaurant and lodge at Hells Half Acre some 35 miles west of Casper. See figure 14-29 and figure 14-33. The next Sunday we drove out there to investigate. They, the lodge, needed three girls to fill their vacancies. Valerie and Celeste decided they wanted to try the job, which required them to stay at the lodge 5 days a week, I believe. They also contacted their cousin, Sigrid, to see if she wanted the third opening. Sigrid accepted and soon all three were working there. I believe their days were staggered, so we alternately drove out there to bring one or more of them to Casper for their days off.

They served in the restaurant and cleaned the bathrooms. Time off was spent reading. The surrounding area is more like desert, so a pleasant hike was out of the question. I guess one day they hiked down to the bottom of the canyon to the southwest, which is the state or national monument. It looks like hell down there and that's obviously where the name came from. It's a canyon cut in alternate layers of red and gray shales with maybe a little sandstone thrown in. The trail was steep and coming back out they had to grab a hold of pieces of rock on the side of the trail to aid their climb. Valerie told Celeste that that was where the rattlesnakes hid and she better be careful. Needless to say, Celeste was upset and didn't particularly like the hike. To make matters worse, they had seen a couple of rattlesnakes on the premises of the lodge. Both were killed but they created an image in Celeste's mind, which carried into the canyon. Obviously, rattlesnakes were not just a figment of Celeste's imagination. There was plenty of reason to walk carefully. She may have been cautious but she was also probably the smartest in that case because the place was a rattlesnake haven. That may have been the reason for the name, "Hell's Half Acre". Actually, it stemmed from the erosional remnants of red and black clay. The girls seemed satisfied with their jobs although they complained a little about boredom. I took that opportunity to tell them "life wasn't meant to be all fun and games" but, I don't believe that impressed them much. Even so, they gave us no real trouble and seemed to carry out their responsibilities well.

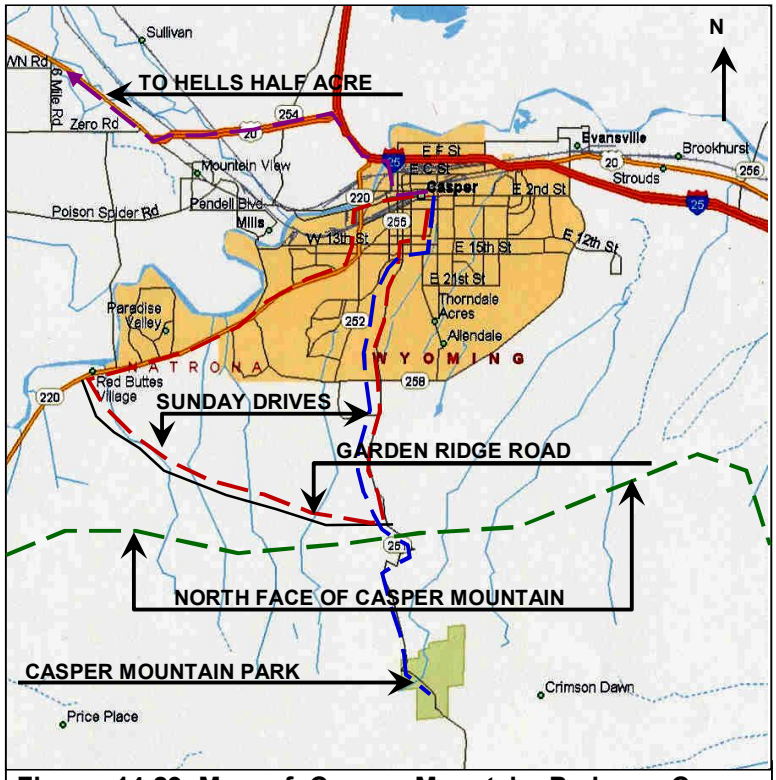


Figure 14-29 Map of Casper Mountain Park on Casper Mountain and their location relative to the city.

THE LODGE IS ROBBED

They liked the cook that hired them but she quit a few weeks later and was replaced by a loser. To make matters worse, the place was robbed about the end of July with all the funds taken from the safe. Several people thought the robbery was staged to cover a poor financial situation. They couldn't pay the girls and we brought them home around the first of August. The lodge then claimed they couldn't pay the girls and some others the back pay they owed, which resulted in a class action lawsuit. Finally the girls finally got all they were due. Sigrid had returned to Boise long before the money was collected but in the end all three were happy. The whole adventure was a learning experience for the girls as well as Esther and I. We not only got acquainted with Hell's Half Acre but also experienced our one and only legal battle, which I guess I should take time to recount. It was more painful for them than for Esther and me.

TWO GIRLS ENTER BYU

That fall, Celeste entered BYU and the following summer (1973) she managed to get a job as a typist or clerk at a state office in down town Casper. Valerie remained at BYU, I believe. It was that summer she met Jared Garfield and they were married in August but that's a whole different story, which I'll address in a bit. Celeste finished the summer working at the same job, which turned out to be somewhat more satisfactory than that of the summer 1972. Certainly that was the case for Esther and I as well. We wanted no more of Hell's Half Acre/

If carrying the belongings of one young lady to her place of residence at college is difficult, consider carrying that of two such girls. I still remember not only filling the back of the big Dodge wagon with their belongings but also tying that much again to the rack on top. I mean that Dodge wagon was well named, carrying a load every bit the equal of the largest of any early covered wagons crossing the plains. Thank goodness for a big engine to pull us across Wyoming to Utah without tiring. However, feed was another problem. Like the horses or maybe oxen of old, it seemed we had to stop and feed the 300 horses or maybe oxen again, under the hood every few miles. We averaged about ten miles to the gallon, down about two from its normal inefficiency. Even though it did the job, I would hate to buy the feed the sucker required at today's gas prices.

Figure 14-30 Valerie and Jared as seen in their engagement photo during the summer of 1973.

We arrived at the dormitory for the girls and wouldn't you know it, they had rooms on the third floor with no elevators. I was only 44 and still in relatively good shape but I was huffing and puffing before I finally got all their suitcases, boxes, bedding etc. in their rooms. I sometimes think they asked for a third floor room just to see if daddy could haul everything up there without a heart attack.

We had a nice motel room a few blocks from school and spent a restful evening there after dinner. I think we dropped by to see Art and his family the next day and finally headed back to Casper. With a tail wind and no load to speak of, our gas mileage seemed to double on the return trip. Soon we were back in Casper and a relatively empty house. Esther had difficulty having Celeste as well as Valerie gone from home. Little did she or I know what the following year was to bring into our calm and rather peaceful existence. Up to that point, we had simply never considered the ruckus that would follow when and if one of our lovely daughters would fall in love. Any unreasonableness in their nature to date would pale in comparison to that produced by a young man plucking the heartstrings of a young lady.

VALERIE'S MARRIAGE TO JARED

I don't recall the reason but, as I remember, Valerie decided to go to summer school. It is possible she met Jared Garfield just prior to the end of the spring semester and cooked up an excuse to stay through the summer. Of course, just about anything would do at that time because she was seriously engaged in becoming a teacher as well as being a good student. In any case, she fell head over heels in love and brought him home for a visit.

He had just returned from a mission in New Zealand and was working as a carpenter's helper, as I remember. I must admit, I was somewhat impressed by his friendly manner but my introverted nature automatically put me on guard in a manner similar to the times I was being approached by a car salesman. Surely there was more than just an interest in our daughter that motivated his friendly actions. Maybe he really was selling cars on the side and knew an obvious dupe when he saw one. I thought, "I better be on my guard or I'll own some wreck with a shiny exterior. I'm not sure just what his next move may be". Of course, I could have always given it, the car I mean, to them for a wedding present.

Anyway, we had a nice visit during which time we had a good old-fashioned barbecue. I remember him following me around from kitchen to patio as I prepared and cooked the steaks. I wasn't used to so much talking unless it involved technical jargon and found his barrage of questions and casual conversation somewhat on the burdensome side. Regardless, the visit went well and I wasn't too surprised when he said he had already popped the question to Valerie. She, having accepted, left Esther and I little to argue about. After all she was 21 and an adult, even though I was still her sole means of support. Esther and I tried to talk them into waiting until she finished school, which was a year or less away and would give them more time to get to know each other. Of course, such logic was comparable to fighting a forest fire with a garden hose. They knew they were right for each other and wanted to be married in August, just a couple of months away. Their engagement followed as verified by figure 14-30.

Their plans were to be married right away and for her to complete her senior year at BYU the coming fall and winter. Jared would continue working in carpentry, or so I understood. Actually, the reality they and we experienced in the following months had no resemblance to the rather logical plans they had presented to us.

PLANS MOVE FORWARD

Well, the remainder of the summer was a living hell. With my natural inclination to avoid the unpleasant, I did my best to travel as much as possible and gave Esther the green light to do as she saw necessary. She was all a dither about wedding preparations right up to the actual event. Valerie wanted to be married in Provo where her friends were and had little interest in our friends in Casper. Esther asked me what I thought and I replied, "Do what you think is best". She gave in, I suppose because of my lack of support for Casper, and the date was set for August 19, 1973 in Provo. Valerie made arrangements for the reception in a hall above the Student Union to my recollection.

They, the Student Union, handled the whole thing for a fee but Esther was left with the wedding and brides maids' dresses and I was left with the bill. Valerie had something like 8 brides maids, which I thought was ridiculous but it was easier to complain in silence than to be involved. I had never heard of such a thing but being rather ignorant about the finer things in life, I held my peace. Besides, she was in such an emotional state that any criticism seemed to draw tears, which left me feeling like a boogieman. She had to include all her close friends so as not to antagonize any, or so she said. I found out later that all of them weren't so close and we footed the bill for all their dresses. I thought brides maids usually bought the material for their own dresses but found my question irrelevant when it was posed. I don't remember the total tab for the whole affair but I warn fathers of brides to be, "You'd better be involved or prepared to pay according to things deemed necessary by the fairer sex." The old adage "Pay up or shut up" applies here or, maybe, "Pay up and shut up" would be more appropriate. I found my education in this particular field of learning more costly than my own five years of college. Of course, I should have expected it the first time I loaded the station wagon to haul her and her things to Provo. The things she deemed necessary for marriage were in direct proportion to those items she deemed essential in college. That is, they were almost numberless but I did gain some insight into the workings of the female mind.

Another word of warning to papas so pleased with their daughter's approaching wedding plans might be phrased as, "Define quite carefully what you will tolerate in wearing apparel at the reception. I found that year that my daughter's idea of what was really nice and mine were somewhat different. As a result, I ended up in a

Figure 14-31 Valerie and her eight bridesmaids. Count them, if you don't believe me. I should have worn green.

tuxedo with a distinct resemblance to the Easter Bunny. The photo of Valerie and her court, as shown in figure 14-31, won't bear that out but it does confirm the pink motif featured in her wedding. Trust me; I had several offers from Provo civic organizations the next spring to play the part of the Easter bunny. Either they were impressed with my obvious talent as a bunny or they realized I would still be trying to pay for the wedding. I was a little miffed that Playboy didn't offer me a job, as well.

Anyhow, after the wedding Esther and I along with Celeste and Tom, crashed in a local motel and were thrilled with the completion of the whole affair. The next day we headed back to Casper and our home with its relative sanity.

A SPRING SNOW STORM

In the spring of 1974, Celeste came home for spring break. She brought a friend by the name of Linda Collins with her and they spent about a week in Casper. I just realized, she could be related to us through our Collins roots, who knows? I was to take them back on a Saturday, I believe. If that's the case, about Wednesday night it began snowing rather seriously. By morning we had a foot or so of snow and it continued to come down all that day and into the night. I awoke Friday morning to bright sunshine but my mind quickly clouded over as I remembered I had a driveway to shovel. It was obvious from looking out the back patio doors that there was plenty of snow on the ground. After a leisurely breakfast, I walked to the front door and opened it. All I could see was snow on the other side of the glass storm door. I couldn't even push it open. Next, I went to the garage and raised the door. There, staring me in the face was a pile of snow close to six feet deep. It had drifted up against the door as well as all over the front of the house. Here and there I could peek out and see that the snow was somewhat less deep out near the street. From experience, I knew it would be an all day job to clear the driveway alone, let alone the sidewalks. Unfortunately, Tom was too little (eight plus years old) to be of any help.

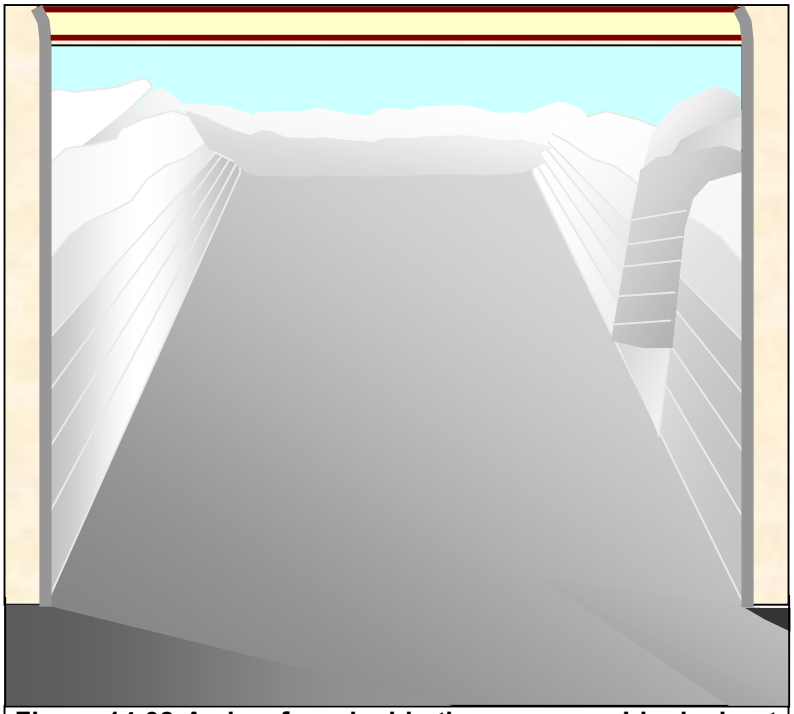


Figure 14-32 A view from inside the garage as I looked out on my hard day's work of clearing the driveway. Notice the pile of snow left at the end of the driveway by the plow.

DIGGING OUT

I decided the driveway was the most important and began digging out towards the street. I had to clear a path wide enough to get the car out because tomorrow was Saturday, the day of our departure for Provo. Somehow, I needed to get out of Casper and down the highway for Utah. The snow was heavy, being rich with moisture and every shovel full drew a grunt of anguish from me as I tossed it up alongside the driveway. I shoveled down each side first to provide a path so I could get close enough to heave the snow up out of the way. I was six foot three in those days and by the time I had cleared the driveway, the banks of snow on either side were well above my head, probably 9 feet or so high. By late afternoon I got to the street, which left only the sidewalks to the front door and along the streets. I cleared the short walk from the driveway to the front door and then the small porch.

As I turned around, here came a snowplow down east Sixth Street. As he passed by my drive, he left a ridge of snow about four feet deep between it and the street. Worse yet, it was somewhat slushy and very difficult to move. Did the plow operator care? Of course not, he just waved in a good-natured way as if to say, "Having fun buddy, here's a little more for you to

play with". I walked into the garage and viewed my work as illustrated in my crude drawing of figure 14-32. Admittedly, my work wasn't as precise as the drawing would indicate. By the time I dug a path through that bank, it was getting dark and I said nuts to the city sidewalks. I would get them later. If I were lucky, the snow would melt before I got back from Provo.

A WISE DECISION

I listened to the news that night to decide the best way out of Casper. Casper Mountain had received six feet of snow and Casper proper three feet. The storm had also dropped a good deal of snow between Casper and Rawlins. Consequently, I decided to head out highway 20 to Hells Half Acre and eventually to Riverton. From there, we would go over South Pass and come into Rock Springs on US 191 after which we would have interstate into Provo.

The next morning, we loaded up and with some difficulty I got the old Dodge wagon out into the street and headed for town. The main streets were plowed and I had little trouble getting to US 20. I was surprised how quickly the amount of snow on the ground decreased as we headed west. By the time we were 20 miles out of town the ground was essentially bare, having only windblown snow here and there. Apparently, the storm was confined to the eastern part of Wyoming. The landscape from this point on was normal for Wyoming and we had no trouble all the way to Provo. I unloaded the girls, took them to supper and then dropped them off at their dorms. I grabbed a motel and got an early start for Casper the next morning. I returned via Rawlins and found the roads all cleared into Casper but ascertained that I had been smart to head due west out of Casper that previous morning. There had been a considerable snowfall between Muddy Gap and Casper, which would have slowed us a good deal. With twenty four hours behind me, the roads had been plowed and I only had to fight a ground blizzard, which was a common occurrence that time of year. One had to slow down a little in such conditions, as well as keep his eyes open for oncoming traffic but, other than that, it was smooth sailing all the way home. I was an old pro when it came to those kind of conditions.

FATHER AND SON OUTINGS

Tom and I had some good times participating in "Father and Son Outings" while we lived in Casper. He was 6 and a half when we arrived and 10 and a half when we left. Each May the Church had a stake Priesthood outing, which started Friday night and lasted until Saturday night. It was held at a campground on the Wind River just north of the Boysen Reservoir or 15 miles south of Thermopolis. See figure 14-33. The stake presidency cooked supper on Friday

Figure 14-33 A map of Central Wyoming illustrating the location of our Father-Son outings each spring.

as well as breakfast the next day. They also provided the fixings for lunch but everyone built their own sandwiches or hotdogs.

On Friday night we had a big campfire and everyone gathered around it. We sang songs, some of which were priesthood related, told stories and usually enjoyed some smores or just plain toasted marshmallows. I ate the latter. Smores were more than I could stomach. They were too sweet and too rich for this old po-boy's blood. There might also be some sort of one act play or special singing by someone with little talent, right down my alley. Oddly enough, I was never asked to participate. Like Rodney Dangerfield, "I just don't get no respect".

About eleven, everyone would retire for the night, each to their respective sleeping facilities. Many slept in the open air or in tents but Tom and I would sleep in the back of the Dodge wagon. It was easy and, should the weather turn bad, we would be dry. There was just enough room for two sleeping bags to be placed side by side. Of course, we also had air mattresses

which made the accommodations quite comfortable, even for me.

About 8:00 AM, those in charge would ring the breakfast bell. Most everyone was up by six or so, playing horseshoes, baseball or whatever tickled their fancy. Of course, such activities were dropped with the first clang of the bell. Appetites were bigger than normal and we rushed to get into line. The fare consisted of hotcakes, eggs, bacon, orange juice and hot chocolate. We could eat as long as the food lasted. After breakfast the baseball continued while others played horseshoes or walked down by the river to skip stones and enjoy the cool morning. Tom and I chose the latter because of his age. I tried to teach Tom how to select a good rock to skip across the water but he got a kick out of just throwing rocks in the river. If one happened to skip, that was a plus.

SWIMMING AT THERMOPOLIS

At noon we would once again make our own sandwiches and then head to Thermopolis to swim. On the way up we traveled through the Wind River Canyon, which cuts through a mountain, exposing rocks in geologic time from the early Cretaceous to pre-Cambrian. Tom was a little bit young to be interested in such things but the various formations intrigued me.

In Thermopolis they have a natural hot water swimming pool with a big slide and various diving boards. The springs are advertised as the world's largest. Tom still didn't swim but he loved the slide. The only trouble was standing in line to wait our turns. Our group was big and the pool was rather crowded. However, it is a large pool and seemed to accommodate us well with everyone apparently having a great time. We usually swam for a couple of hours, which often included water polo. We could leave anytime, as we felt inclined. Tom and I would head out around 4:00 PM. We always stopped at a drug store in Shoshoni at the intersection of highways 20 and 26. They still made milkshakes the way it was done when I was a kid. They added an extension on top of the metal mixing glass and gave the customer the whole thing along with a normal milkshake glass. We could get about two full glasses out of the metal container and boy, were they good. No soft ice cream but the real thing in whatever flavor one chose. Usually we arrived home about 6 to join the family for dinner. Of all the Father-Son outings we experienced together over the years, I believe these were my favorite. Though I can't speak for Tom, I suspect he would say the same. He even had his old worn out rabbit for comfort.

SPEED TRAPS

When I was in town I usually spent my time at the office in Mills. I would visit the district from time to time but only as technical training or when problems occurred. My route to the office is shown as a red dashed line in figure 14-21. It was direct and I was able to avoid the traffic of the city center. After a while, I could drive the route in my sleep, I believe. In fact, one Saturday I was going to get a haircut down town, which doesn't take a lot of concentration.

They still made milkshakes the way it was done when I was a kid. They added an extension on top of the metal mixing glass and gave the customer the whole thing along with a normal milkshake glass.

Without much thought, I pulled out of the driveway thinking what a nice day it was and began driving. Much to my surprise, a little later, I pulled up in front of the division center. I had been on automatic with no thought as to where I was headed and ended up at work. Well, it didn't take me long to turn around and head for town with a little more concentration so I could get to the barber.

One nice weekday, I headed for work. The speed limit along 12th street was 25 and it was enforced. I knew that and conscientiously monitored my speed to keep it below the limit. One morning as I past the bottom of a hill on 12th street (designated on the map), I glanced in my rear view mirror and saw a flashing red light. I looked at my speedometer and I was traveling below the speed limit. I thought, "I wonder what he wants?" Well, it was grandpa. He pulled me over and wrote out a ticket for $20. I said, "Officer, I was only doing 20, how come?" He responded with, "You weren't doing 20 on the hill. I clocked you at 30." I took the ticket and promptly paid it at the local gendarme's office.

A week later I was headed to work once again and stopped for gas at a station near the top of the hill on Beverly. There I ran into Gil Feather, an engineer in the Casper district. He commented, "I see by the paper they nailed you for speeding". I answered, "Yes, but I learned my lesson. I now keep my foot on the brake when I go down the hill on 12th street. I'm not about to get caught again." He laughed and we chatted a while after which I headed for work. I

watched my speed carefully as I went down the hill and stayed at about 20 MPH. As I neared McKinley Street, I glanced in the mirror and noticed another flashing red light. I thought, "What in the world is he after me for now? I know I was only going 20 MPH". Once more I was pulled over. The same officer issued me another ticket for $20. When I asked why, he said, "You were doing 20 in a 15 mile per hour school zone." Well, the moral of the story is, "Day dreaming doesn't always come free." Pay attention to those signs. Needless to say, I no longer participated in that particular activity; day dreaming that is, after that incident going to work. I knew that dirty bugger was hiding somewhere between me and my workplace. In fact I felt sure he had picked me out of the crowd and was plotting against me, noting my route and time of travel before laying in wait. I did, however, watch my speed more closely while in Casper and avoided any further tickets.

PICNICS & CAMPING EXPERIENCES

Our usual haunts for summer outings from Rock Springs were now further away than we liked but we were blessed with alternatives. First, there were several spots along the north face of Casper Mountain, which provided nice one-day trips for picnics. These included the park described under Casper Mountain and shown in figure 14-29 as well as a couple of spots shown in figure 14-34 along the Hat Six Road east of Casper. In these latter two, one could fish as well as picnic but the terrain wasn't as high and rugged. They were located on the lower end of the mountain face with trees being confined to areas near the streams. Even so, it was pleasant and we enjoyed the few times we went out there. The road, at that time, was really rough and the travel was slow. It probably took an hour and a half to cover that short distance.

A CHURCH PICNIC

One Saturday we had a church or ward outing at Casper Mountain Park (figure 14-29). Besides the ward picnic, there were plenty of games including an egg toss and some races of various kinds. It was in the latter that I learned a few years in age made a big difference in running. By then I was about 45 or so and other elders in their 30s ran circles around me. Not that I was ever very fast but they made the race look like that of the tortoise and the hare, only the hair kept running. Even so, we had a great time as usual with the folks in the ward. Additionally I saw a couple of pets, dogs, of someone in the ward that presented a great lesson of life. One was a German shepherd and the other a tiny little dog, which must have been a mixture of Mexican jumping bean and who knows what. In any case the latter was a high strung, irritating little dog that thought she owned the premises while the German shepherd was laid back and didn't seem to have a care in the world. Well, that little "jumping bean" kept running up and yapping at the dog five times her size and even nipped at his legs. I thought the German shepherd would turn around, grab the little dog, chew her up and spit her out. If he had decided that he'd had enough, she didn't stand the chance of a snowball in Hades. However, big dog very calmly went about his day and simply ignored the little mutt the whole time. She got on my nerves. I don't know how he took it but he did. I marveled at how that symbolized real life in that one often sees some pip squeak trying to be important and occupy the stage in life but only establishing his-own identity as a jerk. Meanwhile, another person of dignity and obvious capability simply ignores the crude antics being displayed and goes about completing his business of the day.

A FLOAT TRIP ON THE NORTH PLATTE

One summer the ward planned a float trip down the Platte River, which heads in northern Colorado, flows through Wyoming and departs the state on the eastern border with Nebraska. The committee in charge had selected an area southwest of Casper, which began just below Alcova Dam and finished at a point about ten miles downriver where highway 220 crossed it. Road miles were about half that or five miles. See figure 14-34. All were counseled on preparation including food, clothing and sunscreen. That was my first experience with sunscreen, it being new on the market, it seems.

Meanwhile, another person of dignity and obvious capability simply ignores the crude antics being displayed and goes about accomplishing his business of the day.

We arrived at the starting point about 10:00 AM on a nice clear Saturday morning. We climbed in our little rubber boats, which varied from sleeping mattresses through inner tubes to real rubber rafts and secured our drinks and lunches. I believe Tom, Celeste and even Esther were on this particular trip with me. As I remember we had a couple of small rubber rafts. We had

brought large beach towels with us along with sunscreen and lotion. In the beginning, it was great fun. The river meandered along through the rather level terrain and varied from rather deep and slow areas to some wider and swifter parts. We would kick alongside the raft, swim into attractive places and climb on the raft from time to time to rest.

Unfortunately, the river moved rather slowly, especially in some places. The ten miles by river took us something like 6 hours and eventually became somewhat boring. That is, the newness wore off and we began to just try to find comfortable positions on the raft to relax. Of course, the sun began to get to us and halfway through the trip we ran out of water and other drinks. What began as great fun now began to be increasingly burdensome. I don't believe anyone anticipated 6 hours on the river. We also began to feel the afternoon sun indicating the sunscreen and towels weren't providing complete protection. About four that afternoon, we spotted the bridge and the cars waiting to pick us up. The next few minutes getting off the river and into cars were surely just as delightful as was the first hour or so on the river. We were glad to have it over with but, even so, were also glad to have come. Sunburns were prevalent among all of us with some suffering more than others. Fortunately, our family had no drastic burns but still felt the need for lotion and the cool of the house when we returned home. It was one of those experiences we were glad to have had but didn't really care to repeat it.

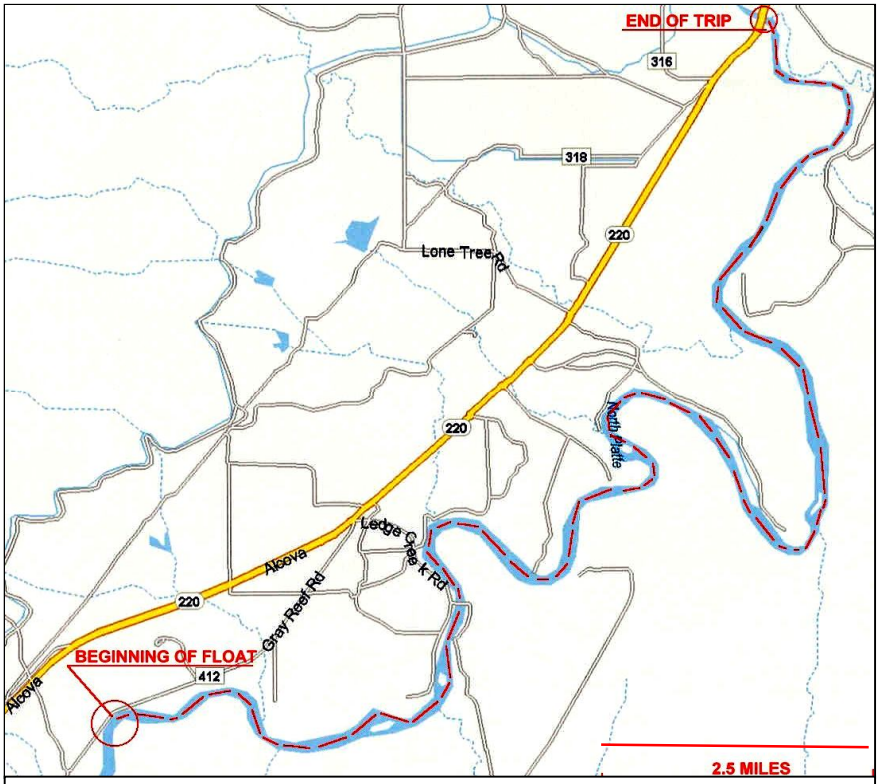


Figure 14-34 A float trip on the Platte with our ward members.

A FLOAT TRIP WITH TOM ON THE GREEN

In the summer of 1974, I believe, I had an opportunity to accompany customers and a few other Schlumberger personnel on a float trip down the Green River. It would be a two-day affair with one night of camping on the bank of the river in northern Utah. We were able to take kids, as it was kind of a family affair even though the entertainment of customers was the company objective. The cost, including a variety of drinks and good food, was to be furnished by the company providing the river expedition but ultimately covered by Schlumberger, of course. Naturally, I jumped at the chance to take Tom who was now approaching ten years of age. I have provided a map in figure 14-35 illustrating this particular outing, including our flight path to Vernal, Utah and the geographical extent of the float. Though the latter appears short on the map, the actual float covered some forty miles and took almost two days to complete.

A SPECIAL PLANE RIDE

I had another neat surprise for Tom. Don Newman, the district manager in Vernal at that time, flew his own plane and would be in Casper contacting customers a couple of days before the float trip. He offered to fly Tom and me from Casper to Vernal for the event. It's not clear in my mind just how we got home. We may have taken Frontier Airlines, which served both towns. Anyhow, on a Thursday we climbed into his little single engine plane with him and away we went. Tom was taken by what he could see because the flying altitude was rather low and the day was clear and beautiful as it typically is in that part of the Rockies. We bounced around quite a

little due to the air turbulence but Tom didn't seem to have much of a problem with it. As we headed southwest, we passed just to the west of Alcova Reservoir. Independence Rock was to the west a little further. I could make it out but I'm not sure Tom really understood what I meant as I pointed it out. A little to the south we saw Pathfinder Reservoir east of the plane's path.

After that there was little to see in Wyoming other than the interstate and a few erosional remnants. However, as we approached Utah we passed over the foothills of the Uinta Mountains near Pine Mountain. They were pretty from our vantage point and as we got a little closer, we noticed smoke rising from the side of a wooded ridge. Our pilot, Don Newman, turned slightly to fly near it. Sure enough, it was a small forest fire and at that point didn't seem to have anyone working on it. That, of course, excited Tom. Soon after that we crossed the main ridge of the Uinta Mountains and began our descent into Vernal. The whole flight occupied about 2 to 2½ hours as opposed to 5 to 6, required by car.

THE FLOAT TRIP

Early Friday morning we had breakfast and were picked up by the float trip company. They deposited us just below the Flaming Gorge Dam a couple hours later. Soon we were on the water floating down a beautiful and I do mean beautiful river with steep wooded hillsides surrounding us. I immediately understood where and why the river had obtained its name. Even though it was clear, the water's appearance bordered on a beautiful and almost translucent green. Even so, one could clearly see the bottom with several fish swimming around. The bottom was sandy with a few rocks scattered here and there. This continued for many miles. Apparently the current had been swift enough over the years to sweep any of the finer sediments downstream.

The party consisted of the large supply boat, which we were on and another slightly smaller raft. Together they carried the food drinks and sleeping gear. The hosting river trip company furnished all the supplies. The men began to fish almost immediately but Tom and I had no fishing equipment. Tom never cared for fishing and I was more interested in watching him and soaking up the beauty that surrounded us.

A couple of miles downstream from our starting point, we came to some small falls maybe 3 feet high. It was kind of exciting, particularly for Tom but our trip over them in that large raft was routine for the skipper. We got a little wet from the splashing but the drop was made with ease. I was never really bored the whole trip but the first day was by far the nicest. Everything from the falls to the general atmosphere that first day reminded me of Bear Valley except for the crowd. I could have camped there a week or more without boredom. Of course, I would have had fishing gear along.

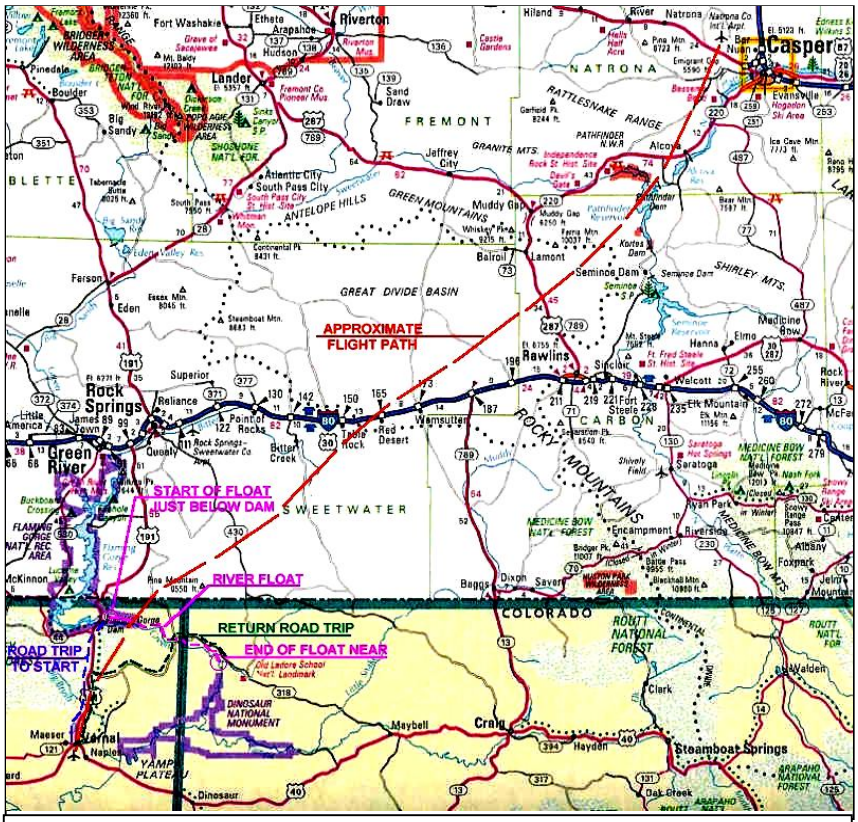


Figure 14-35 A bird's eye view of Tom and my travels, which took place on our float trip on the Green River in northern Utah.

A ways down the stream we beached for a while to have lunch. We didn't have to do a thing because the rafting company had sufficient personnel along to handle it. They set up privies as well as prepared lunch. We were reminded

to dispose of all trash in bags, which were loaded on the rafts and carried out for disposal. Soon we were on our way again. The beauty continued and the fishing was excellent. I wished at times that I had brought some gear along. The fish were all good sized, in the range of 10 to 15 inches. Some people exceeded their limits and began tossing them back. We had plenty for everyone that evening, which not only supplemented other foods but also went a long way towards giving the trip an air of authenticity.

That evening, around 7:00 PM I suppose, we stopped at a nice spot along the river where the terrain had flattened out considerably. Tom and I walked around, skipped rocks and generally relaxed while dinner was being prepared. Soon they rang the bell and by the time we finished it was dark. After dinner people gathered around the fire and swapped stories until around 10. We grabbed sleeping bags and selected a nice sandy place under some small trees. Before long we were fast asleep. It had been a long day and they planned an early start the next morning. The sand under the bags provided a nice mattress and I don't remember waking until I heard activity around 6:00 AM. Breakfast was served around seven and we were back on the water by nine or maybe earlier.

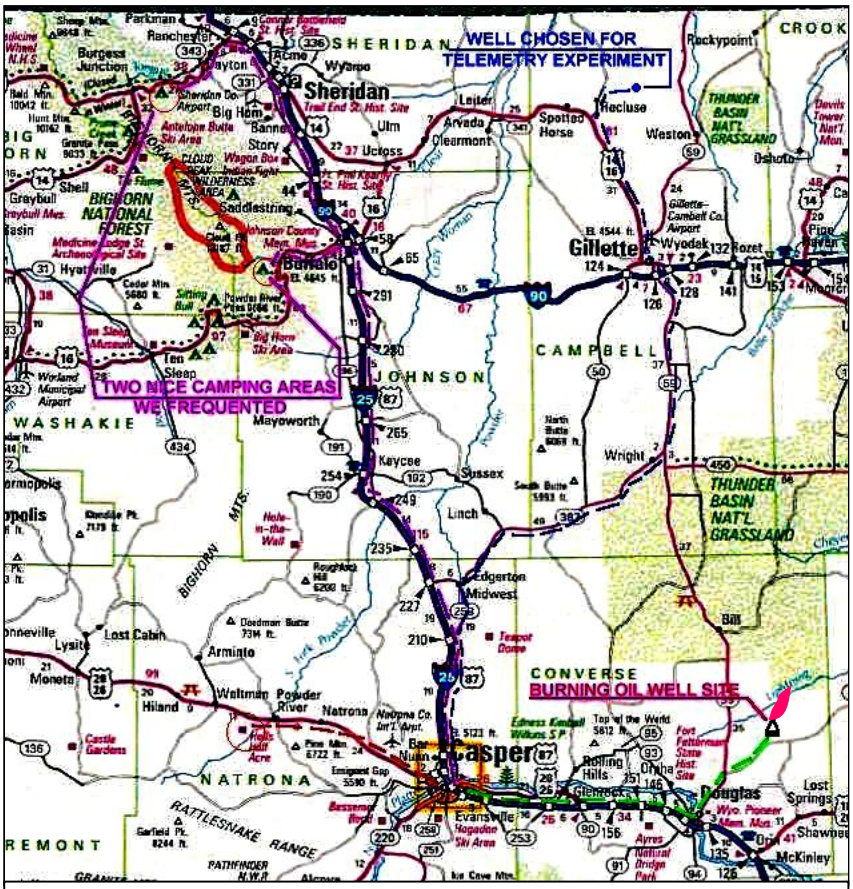


Figure 14-36 A map of the Bighorn Mountains, which illustrates some of our favorite camping areas during our Casper days.

The second day wasn't near as beautiful as the first. The river had emerged from the canyon and the terrain was hilly with distant mountains. The current had slowed and the water had lost the nice emerald green appearance. The banks were lined with willows and some small trees. Fishing wasn't as good but the fish caught were much bigger. Some were browns and measured twenty plus inches. The day was a little warmer because we had exited the canyon and had little shade. By early afternoon we reached the end of our trip. Tom and I were ready because of the change in surroundings. It wasn't long before the trucks were there for equipment and people. We loaded up and headed out along the rough and dusty road. As you can see from the map, we traveled on dirt roads most of the way, on the trip back to Vernal, arriving in late afternoon. After spending the night in a motel, we had time for breakfast and a short tour of Vernal before returning to Casper. I knew Tom enjoyed the experience as much as I did by his obvious enthusiasm and I was grateful to be able to share that kind of time with him. Such opportunities weren't always very common for me.

CAMPING IN THE BIGHORNS

As I have said many times, we were a camping family. I suppose it resulted from my love of the mountains and nature in general. The kids seemed to enjoy it and even Esther did for rather short periods. Unlike me, Esther needed a shower every couple of days, which meant short camping stays or sites located near such facilities, particularly where a tent was involved. She might settle for a sponge bath or two if we rented a small trailer but that didn't last because sweat and grime are a part of camping.

The Bighorn Mountains were relatively close to Casper and there were several camp grounds located therein. I have circled a couple, which we frequented during the summers we spent in Casper. Each trip usually consisted of a 2 or three night stay with a little fishing but mostly hiking and sightseeing. The Bighorns are rugged and beautiful. As you can see from the map of figure 14-36, there was a primitive area along their crest. On one trip we hiked up near that area along an old logging road for a daytime excursion. Though we never reached the primitive area proper, we could see its southern reaches and thoroughly enjoyed the outing. It turned out to be a rather exhausting day. Most of our excursions were shorter and were more of a picnic variety with shorter associated hikes. I think I fished once or twice with very little luck. Had the outings not been of the family variety, I would have probably done better by seeking more remote areas to fish. I'm sure there were several good fishing holes up and down the range. However, the time we were there was well spent with the family.

WITNESSING A BURNING OIL WELL

The summer of 1974, if this old bean of mine reminds me correctly, a drilling well northeast of Douglas blew out after striking a high-pressure oil zone and eventually caught on fire. Look in the lower right hand corner of figure 14-37 to observe the well's location. I have also identified the location of Hell's Half Acre just west of Casper, whose relevance to our family was covered a little earlier. In the upper right hand corner of the figure is a blue oil derrick symbolizing a well experience of mine, which will be discussed a little later.

Initially, the burning well was spewing oil all over the place and they tried to contain it by building a dam around the low side of the area. It then caught on fire and consumed the rig before the fire crews arrived to put it out. Extinguishing the fire and capping the well took a couple of weeks if my recollection is right. I suppose the well burned for at least a week and provided an opportunity for anyone so interested to view it. I took the family out with me, which probably included Esther, Tom and Celeste. We could only get within about a half-mile of the rig because of the heat. The rig was twisted and collapsed to the ground with flames shooting a hundred or so feet high. I had seen a similar situation in Texas, as you may remember, which I described in chapter nine. However, this was a first for the family. It seemed to make quite an impression on them at the time though I haven't brought it up since to see what their memories of the incident might be. We probably hung around for a half hour or so talking about the incident and expressing our amazement regarding the heat and height of the flames. The fire crew had not arrived as yet and nothing was going on, so we headed back to town.

A few days later, Gene and Theresa came to visit and I remember taking them out to witness the spectacle. By then the fire had subsided to a degree and I believe the fire crew had hauled off most of the wilted derrick. However, it was still burning but wasn't as impressive as on our first visit. Even so, they had seen a burning oil well, which isn't an everyday experience, one must admit. For them, it was still exciting.

SCHLUMBERGER EXPERIENCES

As I think I mentioned, we lived in Casper for about 4 years from the summer of 1971 until school was out in 1975. Though we had only routine family vacations and experiences, I had numerous experiences filling my duties as the Division Engineer. I'll relate a few of these at this point. They may not be in perfect chronological order but I'll try to keep them in some kind of logical sequence.

CONTINUING SONIC PROBLEMS

The next several experiences are related one to another, so I will relate them in chronological sequence. Much of it is technical in nature and may be boring, painful or otherwise uninteresting to those who are not of my particular ilk. Even so, I consider it necessary for those who hope or even have any desire to understand this rather confused mind of grandpa's. So, here goes.

TELEMETRY

Those looking into the future with Schlumberger were well aware of the limits of Schlumberger's standard 6 or 7 conductor cables for transmission of down-hole signals to the surface for processing and recording. The 6 conductors available in a standard Schlumberger cable for controlling, powering and recording measurements being made in a well were already being crowded by services being offered in the early sixties. The first solution, or maybe I should say band-aid, was the 7-conductor cable, which gave a temporary reprieve. I'm sure it was a stopgap meant to provide time to develop a better transmission system. As a result,

telemetry emerged in the late sixties and early seventies for testing. I'm not sure of the exact time frame governing its development but the first incident in my sonic story involved such field-testing in the winter of 1973 and 1974.

CROSS TALK ON A SHELL WELL

Schlumberger made the arrangements with Shell to test the telemetry system on a well, which they were drilling in the northern Powder River Basin. Shell had ordered a series of standard logs including a gamma ray – sonic – caliper log. In accordance with the agreement, a field test engineer shipped the telemetry tool into Casper where it was picked up by the Gillette district and taken to the well. The engineer flew in on a separate flight and I accompanied him to the well. It was standard operation for the division engineer to be present on such operations even though he was primarily an observer. We arrived at the well on schedule and prepared all the tools while waiting.

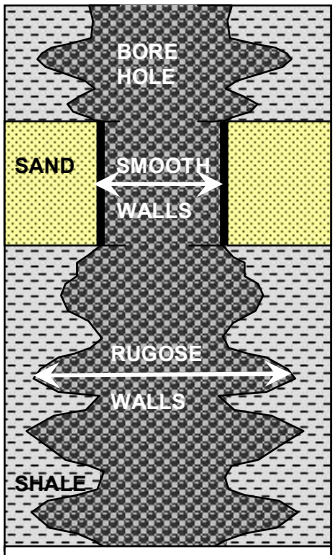


Figure 14-37 A typical rugose wellbore.

The regular field engineer ran all the preliminary services without a hitch but ran into trouble with the sonic tool. As was the case in many areas of our division and the world in general, the shale formations penetrated by the bit often became very rugose. See figure 14-37. The caliper, of course, varied in accordance as the tool was traveling along the drill hole. It seemed the caliper signal, in some un-described way as yet, cross talked or merged with the sonic signal and produced noise of varying degrees on the sonic log. Such interference only occurred where the caliper was unusually active and everything appeared normal in other zones. Not only did the tool signals cross talk but so had the Shell Oil (powers that be) talked crossly to Schlumberger. They were sick of poor quality logs and rightfully so. (By the way, the term "cross talk" means the mixing of two signals, which should remain separated, with undesirable results.) We were having customer problems all over the world, so it seemed, with this device since the inception of the latest version. You see, this tool was the latest version in the evolutionary process of developing the "Borehole Compensated Sonic Tool", as described in chapter seven. It had been giving us headaches for a couple of years or more by now. It had also been a subject of discussion in at least the last couple of bi-annual Division Engineer meetings in Houston but a fix had not yet been found. My boss, Cecil Tedrow, instructed me to do what was necessary to assure a good quality sonic log. Thus the purpose of my trip to the well was really two-fold.

Needless to say, I took my charge, by the boss, seriously as I headed to the field north of Casper. See figure 14-36. Though I, nor anyone else for that matter, had a solution to the problem, per se, I was confident that I could run a reasonably good log through judicious logging techniques. With the beginning of the sonic problems, I took over the engineer's job. On the surface oscilloscope I could observe the caliper signal coming through with the sonic signal and activating those circuits in a manner that produced serious noise on the sonic curve and thus, a poor quality log. Our control of the signal involved a down-hole gain with which we could adjust the sonic signal strength leaving the cartridge and a panel gain that allowed us to adjust the signal input to the surface processing equipment. After playing around for a while, I found I could minimize the effect by running the down-hole gain very high and the panel-gain very low. These settings were contrary to normal logging procedure but they worked. Though the results weren't perfect, the log we produced was acceptable and Shell seemed mollified for a time.

The last service to be run was the experimental telemetry tool, which fell under the field test engineer's supervision. It was run without any hitch with him at the controls. Apparently, he got the data desired and soon we were rigging down and heading home.

On the way back to Casper, I was discussing this problem with the field test engineer from the sonic department. I explained my concern that the caliper signal was cross talking into the sonic signal down-hole and that is where the emphasis in searching for a solution should be. He said that engineering had already thoroughly gone over that part of the tool and could find no problem. It had to be something else. No matter how much I pressed my point, he

wouldn't listen and basically told me I was wrong. Engineering had thoroughly examined that particular possibility. I was just as certain that I was right. I didn't convince him nor did he convince me by the time we separated.

ANOTHER CRITICAL SHELL WELL

Within a relatively short time after the well just described was logged, I got another call from my boss telling me we were having trouble all over the division with customers that were fed up with our sonic logs. Something had to be done. Shell Oil Company was just about to reach total depth on a well in the Vernal, Utah district and the sonic log would be critical. It was a wildcat and they needed reliable sonic travel times for the adjustment of geophysical data. Houston engineering couldn't seem to help and he told me to do something, in fact, whatever it took to satisfy Shell Oil Company.

I suppose my thought process was something like this. The sonic problem had to be solved. No one seems to know what is causing it including Houston Engineering and myself. I had better head for Vernal and see if I could do any good in defining and correcting the problem. If not, I might at least go to the well and with my somewhat better understanding, probably obtain a little better log than the assigned field engineer. Anyway, I jumped in my car and headed for Vernal that day, arriving there in the late afternoon.

Bill Troxel was the district manager and he was nervous as a goose being considered for Christmas dinner. He said, "Shell is madder than hell over our poor sonic logs and we'd better do something or they'll begin using our competitor. I explained to him my suspicions, which I had gained from the earlier well in Gillette. I would do what I could but didn't know whether I could solve the problem or not. I just couldn't promise a thing. After all Houston engineering had been working on the problem for the better part of two years as had all the field people in the United States, Canada and even Europe. All the tools came from Houston and all suffered the same problem, which was manifested to the greatest degree in very rough or rugose boreholes. If the problem was simple, it would have been solved by now.

Vernal's instrument technician, Gib Brough, and I hooked up a sonic tool taken from one of the trucks. We removed the electronic cartridge from the pressure housing and laid it on a cart. Next, we placed the sonde and caliper device alongside it and hooked the sonde and cartridge together with jumpers. After going through all the conventional checks to be sure the system was operational, I hooked the oscilloscope up to various checkpoints in the cartridge and observed that the waveforms were normal. By that time it was going on six PM and Gib had to leave. I went and got a little supper but returned to see what I could do that evening.

After powering up the tool again, I decided to vary the caliper and see what happened to the waveforms. No one was there but me, myself and I, which made things a little awkward but I managed to position the second cart so I could watch the scope while me and myself worked the caliper arms in and out, simulating a rugose hole. Sure enough, I could see plenty of noise and particularly so when I worked them rather rapidly. The noise was only present in the signal output of the cartridge and not in earlier stages of sonic amplification. That also happened to be where the caliper signal was mixed in, which convinced me I was on the right track. Figure 14-38 displays the circuit as it was designed and the area where I observed the noise.

After going through all the conventional checks to be sure the system was operational, I hooked the oscilloscope up to various checkpoints in the cartridge and observed the waveforms were normal.

A LITTLE ELECTRONIC THEORY

I'll digress a little here for those uninitiated in electrical circuitry and try to provide a simple explanation of how things worked. I might begin by saying we had insufficient cable conductors to provide one wire for every signal involved, whether it be power, control or measured signal. As a result, the tool design mixed various compatible signals for transmission up the cable. This included the caliper and sonic signals, which were mixed at the cartridge output in a manner that kept them from interfering with one another. In the upper right hand corner of the diagram you might notice the combined sonic and caliper signals en route to the surface. In the cartridge the incoming sonic signal was applied across the whole transformer and consequently traveled up #2 and returned on #5 while half the incoming caliper signal traveled up on #2 and the other half on #5. Connecting the incoming caliper signal to the center of the

transformer in the cartridge with a similar configuration in the surface panel made this possible. This is illustrated in the diagram of figure 14-39. Also, notice the chokes labeled L1 and L2 in the center of the diagram. These are meant to keep other types of random interference out of the two signal paths. A choke doesn't have a secondary like a transformer, i.e. the ones used for the sonic. One might think of them as half a transformer. They simply stop a certain range of ac signals, such radio waves, from flowing in the wire they are hooked into and eliminate that source of interference.

Now, I can almost feel the intense interest of any readers I might still have at this point. Obviously, such a reader would be maladjusted with some sort of technical hang up. However, to reward their diligence, I will try to clarify the problem a little with, what else, another diagram.

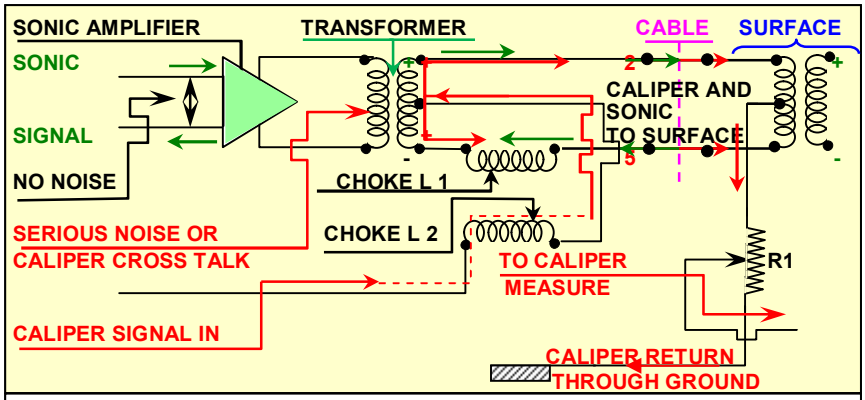


Figure 14-38 An electrical diagram of the sonic–caliper output circuit where noise occurred in the electronic cartridge.

One should be able to connect a scope across the top half of either transformer shown in figure 14-38 and obtain a picture similar to the top one in figure 14-39. The green sonic signal would ride the red caliper signal as the caliper changed in size rather than be separated as shown. If the scope was connected across the bottom half, one would find the caliper signal reversed with the sonic signal staying the same. When combined signal arrives in the panel, the two caliper signals cancel across the transformer while the sonic signals add to one another. Both caliper signals flow through the resistor from the center of the transformer and add to each other. This is illustrated in the third and the fourth waveforms from the top.

At this point the signals have been separated and go to their appropriate channels for display. However, I was getting something more like the last signal shown in figure 14-39 across the transformer. The red caliper signal was causing erratic detection of the sonic signal, i.e. just plain old noise. You may remember from chapter 7, page 307, that sonic travel time is measured by detection of signals arriving at two separate receivers spaced two feet apart. To provide a valid log both receivers must detect the sound wave accurately as illustrated in the third waveform of figure 14-39. When noise of various kinds is mixed with the sonic signal at the detector, measurements become erratic in nature, as would be the case in the last signal of the figure.

However, I was getting something more like the last signal shown in figure 14-40 across the transformer. The red caliper signal was causing erratic detection of the sonic signal, i.e. just plain old noise.

VOILÁ! THE PROBLEM, SHE IS SOLVED

Okay, now for the fix and my claim to technical fame with Schlumberger. Being of a suspicious nature, as well as confident that I was zeroing in on the problem area, I, or maybe it was me or myself, began examining all the circuit components. We were all there, you know. As I went back and forth from circuit diagram to the tool, I finally got to the chokes. There were two shown on the diagram but I could only find one. As I traced the circuits in the cartridge, I realized both the caliper circuit and the sonic circuit were hooked to the same choke labeled L1 an L2. Suddenly, it dawned on me that this was a dual choke or two independent chokes in one package. That's advantageous to save room where such is a priority. I verified this by checking the parts listing. Soon I had traced every part of the circuit out and could find nothing obviously wrong. I kept working the caliper from time to time to be sure all my symptoms were still there. They were. Now a good engineer in such a predicament becomes suspicious of everything and everybody. They have to be examined under a microscope, so to speak. If nothing else, I had been and still was a good field engineer because of this inherent trait buried deep in my genes. It also manifested

itself when dealing with sales people. "The facts, son, just give me the facts, please", was a common thought of mine when dealing with such irritations.

I knew it (the problem I mean) had to be a manufacturing defect, because tools all over the world were being affected. Thus, there was no sense in looking for cold solder joints or bad components. Almost immediately, I began to eyeball the chokes. Just suppose these chokes weren't what they were supposed to be. What if the caliper signal was being coupled into the sonic circuit through the chokes like a transformer? Maybe they weren't isolated one from another, as they should be or maybe the thing was actually a transformer. Its only identification was a part number, which described it as a dual choke. To test my idea, I shorted the chokes out with some wire in both circuits and worked the caliper arms again. What do you know; there was no noise on the scope. I took the short out and sure enough, the noise returned. The so-called chokes were the problem but how was I going to correct it? Finding an alternate device in Vernal that time of night would be yet another problem.

I went to the supply room and searched for possible replacements. All I could find was a choke identical to the problem choke. I could just short the critters out permanently but then I might get other types of interference on the job. That wouldn't solve anything. It occurred to me that such devices are polarity sensitive. That is, when hooked up one way a transformer couples a certain polarity or signal phase but when reversed, the opposite polarity or phase occurs. I decided to try hooking the two together but in opposite phases and see if they canceled.

Now I'll be quick to admit, I'm not the neatest guy with a soldering iron but I managed to cram the second transformer into the tool and hook it as I have described. Once again I fired up the tool and sent me to work the arms while myself and I watched the scope. Voilá! There was no noise and the sonic signal came through loud and clear when hooked up with a test box. I was confident the problem had been neutralized even though proper chokes would be the best fix. I knew we could make the job, which was due to come in this very morning. You see, I looked at my watch and suddenly realized it was five AM. I had been working all night. I was now experiencing mixed feelings, i.e. I was tired but wide-awake as well as elated over my success. I was likewise confident but also concerned just how this job would turn out. I knew I couldn't sleep and decided to get some breakfast and come back to the shop when others arrived.

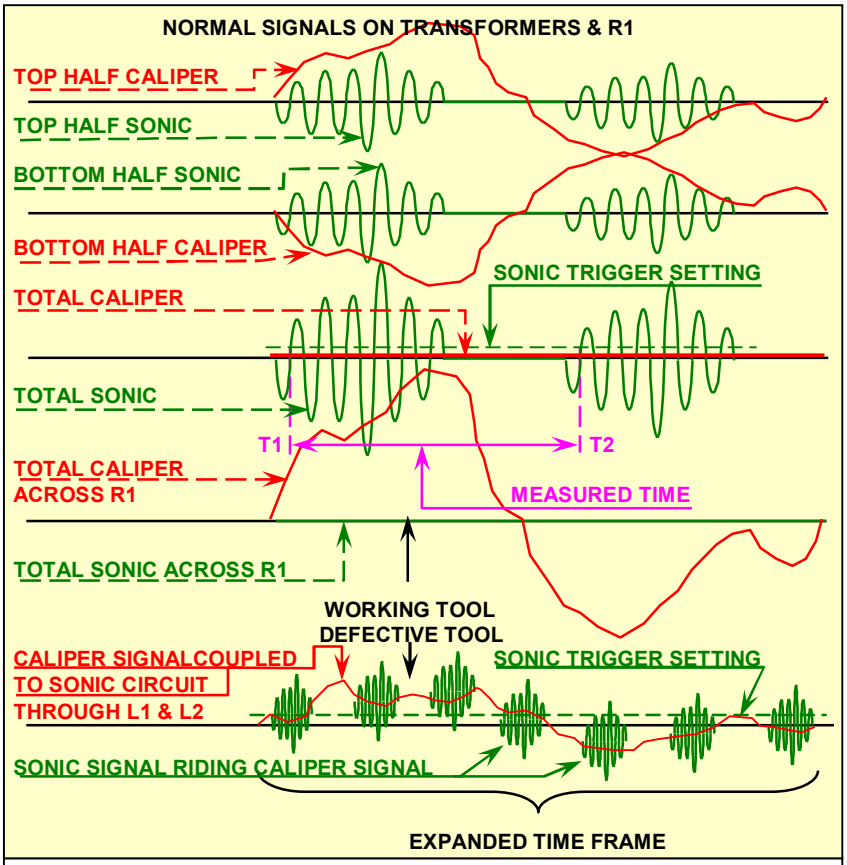


Figure 14-39 Signals measured under normal conditions, which can be observed with an oscilloscope as designated.

I was back at the shop by 7:30 and soon Bill Troxel, the manager, came in. He said the well for Shell would be ready this afternoon and the truck needed to leave by 10:00 AM. I told him what I had come up with. He was pleased but still wondered if the thing would work on the well. Shell was adamant about our obtaining a good integrated sonic log to supplement their

geophysical studies. He asked me if I would go to the well, even though his oldest and most experienced engineer would make the job. I agreed because I was just as interested in getting a good log and also to assure myself my fix would actually work. I wanted to be there to be absolutely sure the best technique was being used as well as observe the process, in case there was any problem. I would try to catch some sleep at the well while the engineer ran the Dual Induction and FDC logs.

THE PROOF IS IN THE PUDDING

I went out to the instrument shop, talked with Gib a little and we put the modified tool back in the pressure housing. Soon the crew was there and loaded up the truck with the modified sonic

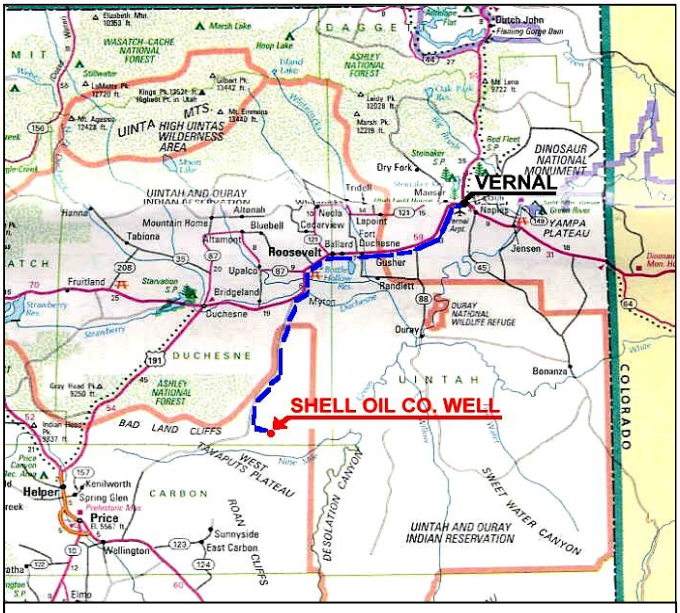


Figure 14-40 The Shell Oil Company well where the modified sonic was run for the first time.

and other devices that had been ordered. They headed to the well about ten. Ed Mixa, a good friend and experienced engineer, headed out a little later. The well was located southwest of Vernal, about 75 miles (see figure 14-40). I took time to have lunch with Bill and took off about 1:00 PM, arriving at the well just as they were rigging up. I managed to snooze a little but found myself thinking about the sonic and wondering what kind of problems, if any, we would have.

Toward evening Ed was ready to run the sonic. It had been surfaced checked before the well was ready and it didn't take the crew long before they were near total depth. Ed called me in and gave me the controls. The shales were really caved in and the borehole wall was as rough as I have seen it anywhere in the Rockies. This would be a real test. Near total depth, I tied into the DIL as was customary while setting the surface controls for best results under such conditions. The winch operator dropped the tool to bottom and we came up logging. I was elated. There was no unusual noise. In fact, the necessary settings, even in the rugose sections of hole, were typical for any well. I didn't have to baby the tool at all. Ed was amazed at how well the tool worked and I could hardly contain myself. I logged several thousand feet before turning the job back over to Ed. He ran about 10,000 feet of log total with no problem and excellent results. After he finished, I headed for Vernal and some well deserved rest. The next morning I was at the office early and Bill was going over the log. He was tickled pink, not having seen that nice a sonic log in the last two years, or so he said. He called Cecil Tedrow in Denver and gave him the good news and I headed back to Casper. Needless to say, I was somewhat pleased with my work. I realized that I had solved a perplexing problem, which had frustrated the company for two years now. I decided that I would talk to Cecil, if necessary, the following day.

A DIVISION ENGINEER CONFERENCE

As luck would have it, there was a Division Engineers' conference scheduled in Houston the next week. Rather than report my findings via letter, I decided to bring them up vocally at the conference. I knew the topic would be on the agenda for discussion as it had in the previous two or three meetings.

The first day, Monday, the subject was brought up for discussion with the Vice President of Operations, the Vice President of Engineering, the Operations Technical Manager and the head of the Sonic Engineering all present along with some 15 or 20 division engineers like myself. The Operations Technical Manager made the introductory remarks, including grave concern over the customer problems being experienced by the company because of it. Several people spoke before I had a chance to say anything. I raised my hand and when called upon said simply, "I know what the problem is and have proved my solution works". I then set about explaining that the so-called dual choke was in fact a transformer, which coupled the caliper signal directly into the sonic output circuit.

I guess my explanation wasn't real clear because the group seemed confused and the Operations Technical Manager asked me to draw the circuit on the board. I was nervous as a mouse tiptoeing past a snoozing cat, as I made my way to the front of the room. I didn't like being in the spotlight and especially when I knew a couple of vice presidents, and some sonic experts were observing me. Well, I got to the board without stumbling or otherwise making an ass of myself and drew the circuit. However, I feel sure my nervousness showed as I repeated my explanation and again emphasized that the dual choke was actually a transformer. You could have heard a pin drop for a couple of minutes. Then an engineer from the sonic section of engineering piped up and said, "The specifications call for a dual choke, not a transformer. I can't believe that's true".

I reiterated that what I said was factual. A good deal more conversation followed; the details of which I can't remember but it culminated with the head of Sonic Engineering saying they would check it out right away. Then he and his design engineer quickly left. Within a couple of days they reported back that I was indeed correct. They had taken a tool from the warehouse, which was ready to be shipped and found the transformer as I had said. Apparently manufacturing had misread the specs and had been installing transformers in all tools going out to the world rather than a dual choke specified. They said they would have a modification prepared and sent out immediately. Knowing the magnitude of the problem, that is the large number of kits to be assembled and shipped, I chose to install temporary fixes in our division until the kits arrived. The impact of the change was too positive to wait on the kits.

Well, I enjoyed the recognition that I got from several people and needless to say, found the remainder of the conference very enjoyable. However, I didn't expect any more complements and returned to Casper that weekend.

RECOGNITION FOR THE SOLUTION

That fall, some 6 months after the conference referred to above, I got a call from our new Division Manager, Bob Kudrle, saying, "You made quite an impression in Houston with your sonic fix. The Operations Technical Manager or OTM wants to provide suitable recognition for your work. He would like you and Esther to join us for dinner at the Ramada Inn this Friday in Casper. We talked a little more wherein he was very complementary regarding my work. I really appreciated his remarks because the individual he had replaced as Division Manager, Cecil Tedrow, never even bothered to acknowledge it in spite of the customers being pleased with our improved sonic logs.

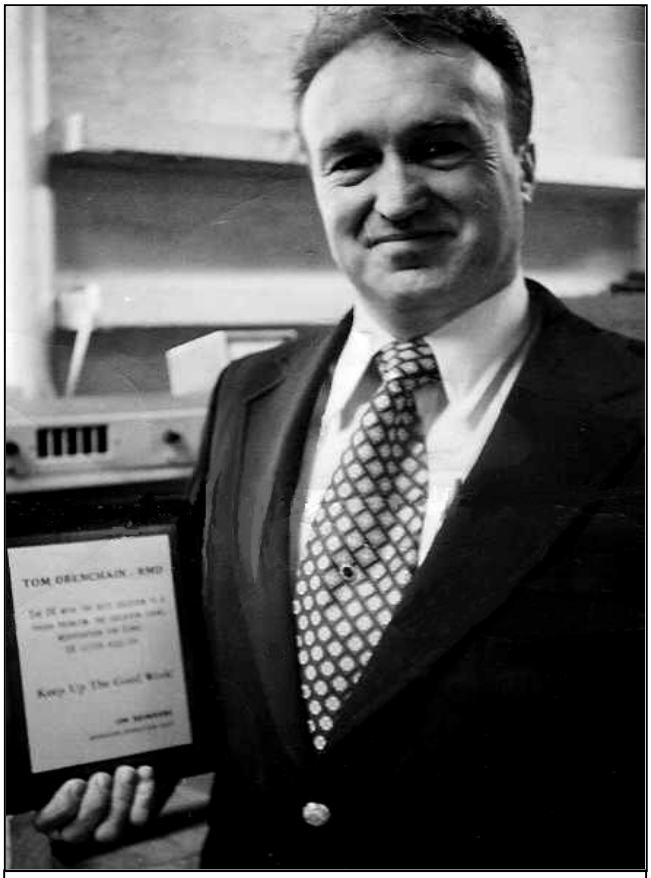


Figure 14-41 "Yours truly" displaying the plaque signifying my sonic modification and solution.

Jim, the OTM, … presented me with … an inscribed brass plaque containing words, as close as I can remember, "Awarded to Tom Obenchain for his outstanding work resulting in D. E. letter # 17-74 and a resulting correction of a most difficult sonic problem".

Well, the night of dinner came and all went well. Jim, the OTM, made a few remarks thanking me for my work and presented me with a color TV as well as an inscribed brass plaque containing words, as close as I can remember, "Awarded to Tom Obenchain for his outstanding work resulting in D. E. letter # 17- 74 and a resulting correction of a most difficult sonic problem". My moment of glory was given a historical status

that evening as they snapped my picture displaying the plaque (figure 14-42). Esther and I were pleased to be the center of attention in this particular case, or at least I was. Of course, people with whom we were familiar surrounded us, making my brief acceptance remarks easier. I walked away that evening thankful for the recognition and knowledge that the brass noticed and cared. I knew that I had made a significant contribution to Schlumberger, a company I had worked for these past 19 years.

CORE SLICING NEAR ESCALANTE

The Core Slicer, as described in chapter seven, page 344, was an ingenious device brought out to acquire a core of the formation comparable to that, which could only be obtained by the usual methods requiring a core barrel and drill string. The market seemed sufficient to justify its design and production. As with most new tools, it was introduced as a special service with limited availability. It was carried in a special van complete with servicing and repair equipment. A second tool was also carried for backup or to guarantee reliable service. A specialist operator, who had extensive training in maintenance and repair of the device, drove the van. A specialist engineer, who also had extensive training, operated the tool as well as making sales calls to help market it. The tool really never got off the ground. Clients wouldn't forego a normally planned coring job in preference to the Core Slicer because the results of the latter were not yet reliably established. Instead, they used it when a core point had been missed or where the well logs identified a formation from which they deemed a core as being desirable.

This limited the market. In addition operational results were mixed with many good recoveries but also some rather poor recoveries. Core fragments of fractured formations tended to fall against the saw blade and jam its operation preventing a good, clean complete recovery. Though its design and manufacture were excellent, the limited market together with the frequent occurrence of fractured formations doomed the device. In later phases of its introduction, an effort was made to reduce costs to justify a continuing effort. The sales effort continued through the normal sales force and the tool operation was left to the field engineer already on location. In a few cases, I was asked to make a job because of my knowledge of the device. One such job took place near Escalante, Utah in the summer of 1973.

AN INTERESTING TRIP TO THE WELL

I received a call to go to the well one afternoon to perform the core-slicing job. The well's location and my routes to and from are illustrated in figure 14-42. As you can see, it was located pretty close to the southwest corner of Utah while Casper is located in east central Wyoming. A one way distance between the two is close to 750 miles, give or take a few. They would be ready for my part of the job around

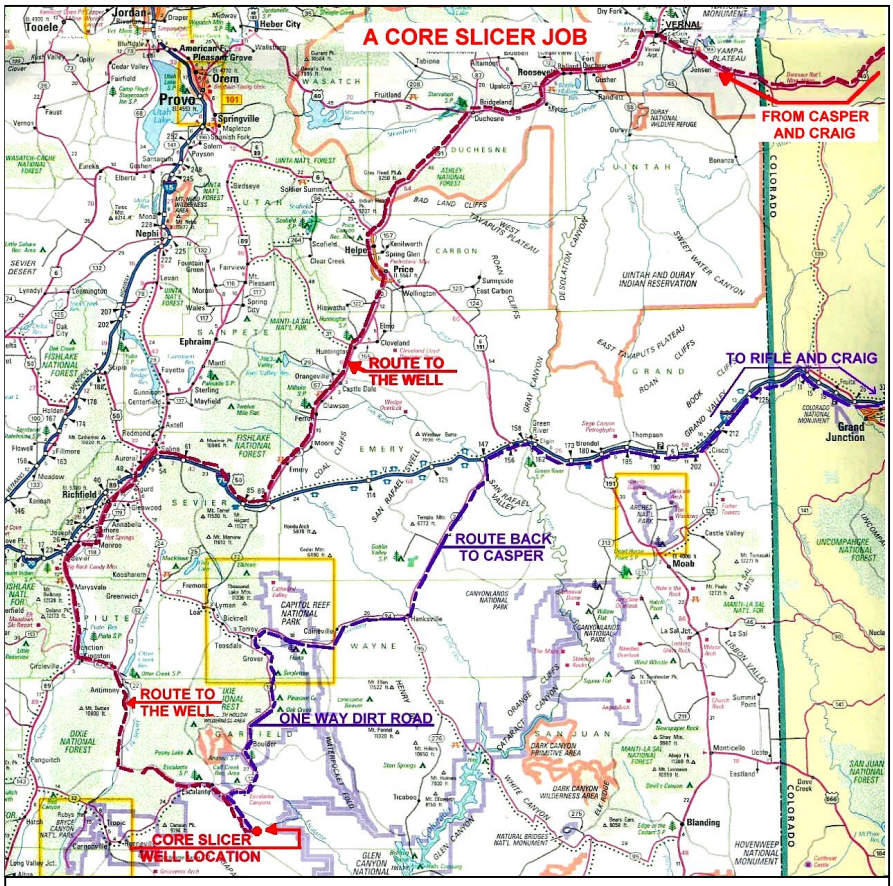


Figure 14-42 An illustration of the Core Slicer well location and my routes between Casper and Escalante covering 1500 miles.

midnight the following day, which meant my departure from Casper would have to be in the vicinity of 4 or 5 AM. I estimated it would be a 15-hour trip including stops. I briefed Esther on my plans and got to bed a little early, knowing it would be a long day. I took off before sun up bound for Craig in western Colorado, a distance of about 250 miles and then headed west on US 40 to Vernal, another 125 miles or so. I ate lunch and continued on, not even stopping to say "Hi" to my friends there.

The map then illustrates my route from Vernal to the well, another 375 miles, if you care to add up the mileage. From Duchesne to Price, highway 191 goes through some rather rugged and scenic country. This was the first time I had taken that particular route and I found it pleasant and interesting. From Price I traveled down 10 to Interstate 70, as you can see. This part of Utah was also new and interesting. Interstate 70 wasn't yet complete through Utah. As I remember, it ran from the eastern border to about Salina, giving me about 45 miles of easy but somewhat boring travel. At that point I grabbed 89 and headed south to Junction, just a wide spot in the road. After mentally debating a little, I decided to take Utah 62 east through Kingston to Utah 10 going south to Antimony. That would put me on a dirt road, which would join up with Utah 32 just west of Escalante and save me several miles. After completing that leg of the trip, I wasn't sure I had saved a lot of time but neither was I sorry. The road was single lane much of the way and going was slow. However, the scenery was magnificent. The mountains were beautiful, particularly to the east, being composed of sedimentary rocks forming high cliffs of variable shades of red. These were overlain with green shrubs and trees mingled with patches of snow. The sun, now low in the west, accented the colors with radiant reflections. What a beautiful sight! I had never seen anything quite like it.

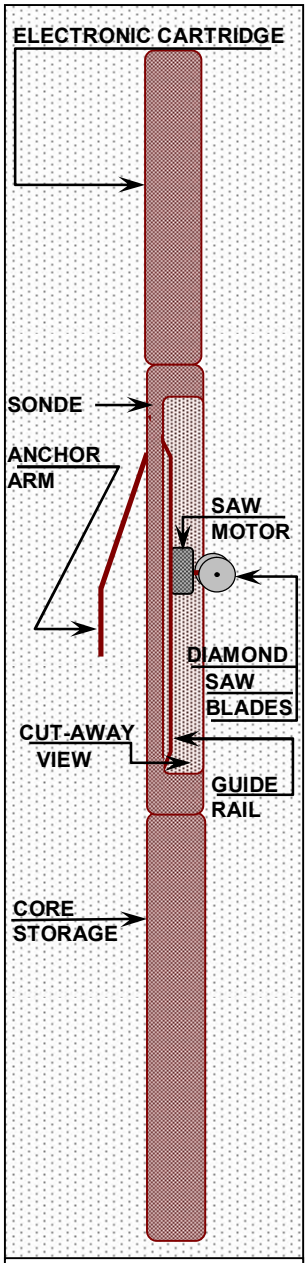


Figure 14-43 An illustration of the core slicing tool configuration that is run in a well.

I arrived in Escalante about dusk and ate dinner before going out to the well. The road to the well was gravel and dirt but relatively flat allowing me to make that leg of the trip rather quickly. The rig stood out against the now darkened sky, shining like a beacon to a somewhat weary traveler. Soon I pulled up on location and parked next to the engineer's car. I noticed the Core Slicer van from Vernal parked next to the logging unit.

RUNNING THE JOB

When I entered the truck, it was crowded with logging crew, specialist operator and a customer representative. I found they were just finishing their last log and would be ready to run the Core Slicer next. After chatting with the geologist or customer representative for a period of time, we got down to business. Using a copy of the log, he pointed the zones of interest out to me; all were dolomites of rather low porosity. He then provided me with the depths of 3 cores he wanted to obtain. They would be used for geologic studies in that particular geologic horizon.

About 2 hours later we were going in the hole with the Core Slicer tool. A few remarks associated with proper techniques for moving and positioning the string of tools seems in order at this point. The tool string, including the gamma ray for depth control, is illustrated in figure 14-43. The string is 30 plus feet long and weighs several hundred pounds and as I remember, had a maximum OD of 4 inches. Its diameter limited its application to a well bore of 7 7/8" or greater. It also constitutes a significant weight on the end of the cable. These two tool parameters, i.e. tool OD and weight, impede the tool's movement and slow the passage of the mud column past the tool as it moves up or down the well bore, particularly where the viscosity of the mud is high. When lowering the tool in the well, cable speed and weight must be monitored to prevent excessive cable slack from building up and eventually creating kinks or even knots.

When moving upward, excessive speed will increase tool drag and hence cable stretch along with a so-called rubber band effect. That is, depths monitored while moving upward will be slightly deeper, as much as two or three feet, than those observed with the tool at rest. I mention this because, the tool is positioned accurately with a gamma ray device attached to the top but not shown in figure 14-43. This device establishes tool depth by recording gamma ray emission of the surrounding formations as the tool moves slowly up the hole. In our case the winch operator moved the tool at about 900 feet an hour or 3 inches per second. This minimizes the rubber band effect and assures us the depth recorded while moving, agrees closely with a given stationary depth.

The coring depths were in the vicinity of 7000 feet, which is relatively shallow in terms of oil and gas wells. It took us about an hour to get to that depth and record a gamma ray positioning film. This can be done by making the depth meter of the film recorder run 12 feet deeper than that of the winch. Such a recording might be 100 feet in length and include several good gamma ray anomalies to accurately tie the recording to the open-hole logs. With this accomplished, the film was developed and overlain on the primary log showing coring depths so as to verify accurate coring depth. With the customer satisfied the tool was accurately positioned for the first core and the anchor set. The latter device extrudes from the tool opposite of the saw blades and holds the face, where the blades emerge, firmly against the borehole wall. This assures proper saw contact with the formation as well as securing the tool in the well so it can't move during the actual cutting operation.

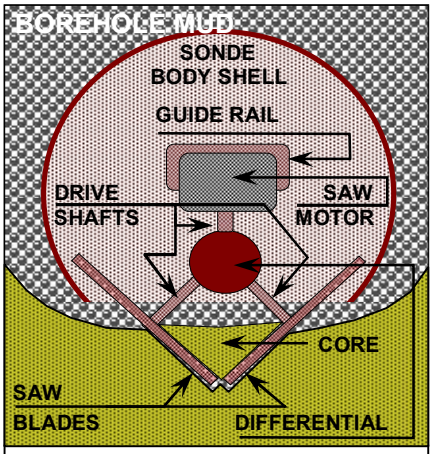


Figure 14-44 An illustration of a cross-section taken thru the core and saw mechanism.

Once the tool is positioned and secured, two activities go on. First, the winch operator slowly moves the cable down hole about fifty feet and then back up slowly without ever coming back to the setting depth. This movement helps prevent differential sticking of the cable in shallower formations during the coring, which may take a half hour or so. You can refer to chapter six for an explanation of differential sticking, if desired. Remember, the tool is securely held in place by the anchor mechanism. The second activity is taken by the engineer who operates the saw and secures the core. The saw is engaged as power is applied to the blades and the motor transport simultaneously. The motor moves outward on the rails, illustrated in the diagram, and the spinning diamond tooth blades slowly engage the rock. The first action is a tapered V-cut one-inch deep into the face of the rock followed by continuous V-cutting down the length of the rail. The blades almost touch one another at their extremities but are over an inch apart at their centers as shown in figure 14-44. The result, when all goes well, is a three-foot triangular core of just over one inch on each face. This is sufficient for obtaining good rock property values such as porosity and permeability. The tool had three or four compartments in the core storage container just below the sawing mechanism. As a core was completed, it would fall into the container in a defined storage space and the tool could be moved to another location in the well, which minimized trip time to and from the surface.

In our particular case, the results were mixed. We obtained a couple of complete cores but also ran into fracturing, which jammed the saw blades. As explained in chapter seven, the saw had a sensing mechanism controlled by the torque required to turn the blades. If the torque increased due to drag on the blades, they would automatically withdraw until such torque returned to normal. It worked much like a carpenter who would back his saw out of a cut when the sides began to pinch the blade. It worked well as long as the drag on the blades was due to rock fragments or dust. However, when a large piece of rock broke loose due to a fracture, the system could not always compensate properly and the blades might jam. The engineer could back the motor and blades back up the cut, in some cases, and free them but in others, it required releasing the anchor and pulling the saw away from the formation. To accomplish the latter, the engineer would have the winch operator return the cable to setting depth before releasing the anchor so the tool couldn't drop and damage the core slicer equipment.

As I mentioned, we had mixed success. A couple of good cores were obtained and a couple of fragmented cores or pieces of core. In a couple of cases I had to release the anchor before I could start the saw again. All in all, the job was interesting and the customer was reasonably satisfied though not elated. By around 4 AM, we were rigging down and ready to leave the well. The first stop was for breakfast in Escalante. We were in town soon after 6 AM and enjoyed a good ranch style meal. The truck crew and the associated engineer as well as the specialist operator had rooms in Escalante at the only motel. I decided against getting one, as it would be difficult to sleep during the day. Instead, I decided to drive as far as possible before dark and then stop for a good night's rest closer to Casper.

RETURNING TO CASPER

As I got ready to leave Escalante, I reviewed my Utah map again to determine the best route home. I could back track along the same path but my desire to experience as much country as possible drove me to another selection. My return is also displayed in lavender in the map figure 14-42. I wasn't disappointed by my choice. What is now Utah 12 going over Boulder Mountain to Torrey was, in those days, only a one-way dirt and gravel road. It was slow going the whole 65 to 70 miles to the blacktop of Utah 24 at Torrey, due to the road, a herd of sheep and my gawking at various scenic sights. From Escalante, one drops down on to Escalante Creek before climbing up Boulder Mountain. I'm not sure how deep the gorge is but at the bottom massive sandstone walls decked with bushes and trees surrounds the traveler. The creek was cool and clear, which, coupled with the shade and streaks of sunlight, provided a welcome change to the rather desert-like atmosphere above in Escalante. As I climbed out of the Escalante canyon, the countryside returned to a desert-like scene and then gradually into rather beautiful mountain scenery. I didn't see the massive cliffs, which I had seen to the west on my trip into the area but soon I was surrounded by ridges, trees and mingling meadows.

It was in this area where I ran into a herd of sheep making the best of their summer pasture and caring little about my progress up the mountain. I'll admit, at this point, to being a little frustrated with my slow progress but probably only lost fifteen minutes or so. Looking back, it was nothing compared to what I would yet experience in New Orleans and Atlanta. I suppose the whole distance took me 3 hours or so. I headed east at Torrey, slowed as I went through Capital Reef National Park and then hit the throttle again into Hanksville. Although I was traveling along Fremont Creek or River, I remember the countryside as being essentially desert. Fremont Creek may well have been dry. There was little to see and no reason to tarry. I would grab a bite to eat in Hanksville and then head up towards Interstate 70 on Utah 24. After leaving Hanksville, I began to fight sleep because of a full stomach and some 30 plus hours without sleep. The two-lane road helped keep me on my toes but when I arrived in Green River 15 miles east of the junction of 24 and 70, I could hardly stay awake. The sun, beating down along an interstate with no curves or significant traffic, tends to lull one to sleep anyway. Having been in this position numerous times in the past, I would roll down the window so the wind could blow in my face and sing at the top of my lungs or stop and walk around the car but in this case, all three. Even so, it was a long 15 miles to Green River. I pulled in to a service station and got a big cold drink with caffeine, hoping that would help until I made it to Grand Junction, some 70 miles further on. It did and I arrived in Grand Junction in the middle of the afternoon. I considered getting a motel but decided against it because it was still too early. I would continue on to Rifle or Meeker or maybe even Craig before eating and hitting the sack. Well, when I got to Meeker, another hundred miles down the road, I had had it, so to speak. It was around 6 PM and I was sleepy as well as somewhat hungry. I found a room, ate a little supper and crashed. I had been up close to 40 hours, driven close to 1200 miles as well as having spent 6 hours or so cutting cores. The remaining 300 miles to Casper could be accomplished in about 6 hours the next day. I awoke about ten hours later in somewhat better condition. After breakfast I returned home some 2 ½ days after I left. Some fun, huh?

AN ILL WIND BLEW ME NO GOOD

As you might imagine, spending some 17 years in the oil fields of the Rockies, I had numerous opportunities for winter-like adventures. Some I have already described but I'll add a couple more here, which occurred while we lived in Casper and seem to have come to the forefront of this old computer chip called a brain. That brings to mind the old adage, "A chip off the old block". Could this be its origin?

Oh well, let's get on with the stories. In the winter of 1973 – 74, I had made a routine trip to Williston, North Dakota. As was often the case, I was taking a little different route back from Williston this time for variety if nothing else. Rather than cutting across the southeast corner of Montana into Wyoming, I headed south on US 85 towards South Dakota. The highway skirted the east side of the Little Missouri National Grasslands, which should afford a pleasant view, at least in the spring or summer. Of course, the land was now covered with snow. I would also be able to see the Black Hills area, which I had visited only once before.

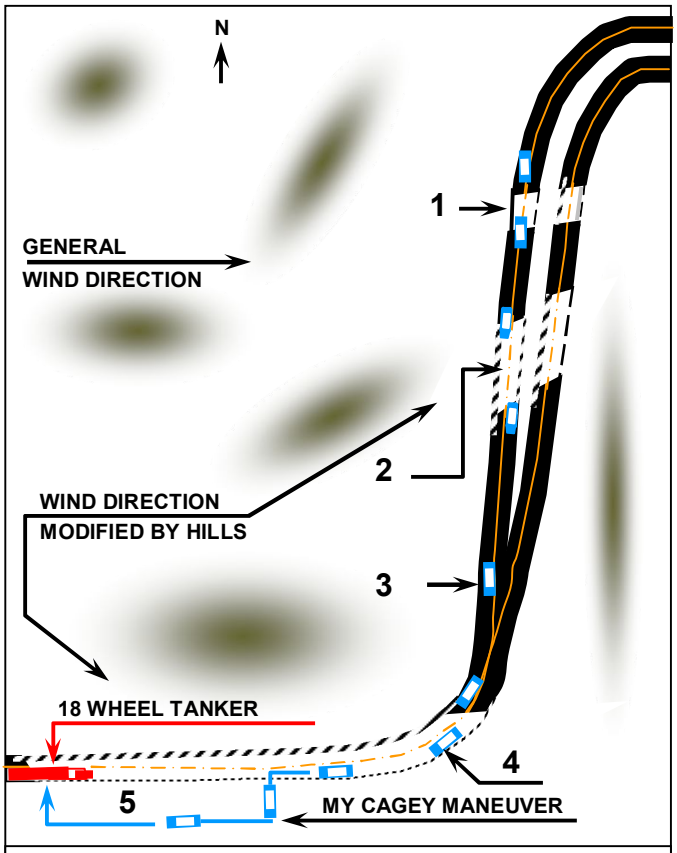


Figure 14-45 An illustration of driving conditions and my evasive maneuver while on my return trip from Williston, North Dakota to Casper.

There were few towns along the way and I made good time in spite of the two-lane road. Finally, I came into Belle Fourche, South Dakota, the first town of reasonable size, where I stopped for lunch. About ten miles south of there I intersected Interstate 90 and took a right into Wyoming. A mild wind out of the west had been blowing most of the way from Williston but as I approached the interstate, the intensity increased causing some sections of poor visibility. I thought to myself, "It's obvious that I'm approaching good old Wyoming where the wind never quits blowing". It caused me no great concern, however, being a part of any Wyoming winter drive. One compensated with extra force on the steering wheel.

As I headed west into Wyoming I raised my speed to a comfortable 70 miles per hour. The interstate made a bend to the south after about 6 or 8 miles, making the wind direction perpendicular to the road. Along this stretch of road the wind, now blowing maybe 40 or 50 miles an hour, was pushing snow across the road in places where there were no banks or other windbreaks. The areas were generally short in length but kind of slick and I noticed the car might move a foot or so to the east with the wind before the tires grabbed again on dry pavement. See situation one in figure 14-45,. I thought to myself, "That's interesting", the wind is actually pushing my car along with the snow". I wasn't concerned, however, because there was no traffic and the car had to move clear across the left lane as well as the shoulder before I would end up in the ditch. See figure 14-45. After a few miles I came to a wide spot covered with snow on the road and by the time I reached the other side I was completely in the left lane. See situation two. With that experience, I slowed down to improve the car's traction and then continued at around 50 mph.

Before long I came to a sign signaling the end of the interstate. It had not yet been completed to I-25 near Buffalo, Wyoming. Being reasonably bright, I decided to slow down some more on the two-lane (situation #3). One could not afford to end up in the left lane now with oncoming traffic. The two-lane now became snow packed and icy. As I approached a long winding curve to the west, I slowed to 20 or 25 mph while gingerly making my way around it. That may have helped, the slower speed I mean but it didn't keep from sliding into the left lane. Luckily, there was no oncoming traffic at the time. I continued around the curve, carefully trying to edge the car back into the right lane. I knew any sharp turns would put the car in a skid and I'd end up in the ditch or worse (situation 4). Unfortunately, there was a ridge of packed snow along the centerline and my efforts were of no avail. As I cleared the curve, I could see an 18-wheeler coming my way about a half-mile out. I put more pressure on the steering wheel and risking the chance of going into a skid should it

suddenly go up and over the ridge. No luck! The truck was now about a quarter of a mile away. I began to realize I was playing a losing game. The stakes were rather high. I decided I would take the chance of going down an 8 or 10-foot bank to the left in preference to a head-on with that monster now bearing down on me. I swung the wheel sharply to the left and headed down the bank with the truck about a hundred yards away. Luckily there were no large rocks underneath the foot or so of snow and I leveled out about 15 yards from the road. I made a hard right and paralleled the road for 50 yards to a point where the shoulder was relatively flat (situation 5). There, I swung back on to the road, stopping long enough to look both ways. As I looked right, I noticed the truck was stopped and the driver was standing next to it, scratching his head and looking my way. I could only imagine what thoughts were going through his head. He must have thought, "I wonder what that guy has been smoking". Regardless of what he may have thought, my tires were the only things smoking due, of course, to my rather original and, if I do say so, brilliant evasive maneuver. My concept of brilliance might have changed, had I ripped out my car's undercarriage.

Well, I continued on to Gillette some 60 miles to the west without any more close calls. I kept my speed around 35 to provide the traction necessary to stay on the road. However, I did come across two different cars that had been pushed off the road by the wind. They were in the process of trying to get back on the road. Though I stopped, they waved me on and obviously needed no help. By the time I arrived in Gillette, the ground was almost barren and the road was dry. I hit the throttle and headed south for home, arriving in time for a late supper and a short story as well as some appreciation for a safe trip.

AN ABOMINABLE SNOWMAN

This particular incident took place a little later near a well site along the Wyoming Colorado border, the same winter as my previous escapade. A logging unit from Rock Springs was stuck in the hole with a Compensated Density/Gamma Ray tool. Being a radioactive device, the potential was there for spreading radioactive contamination in the well and surrounding countryside. Bob Kudrle, our new division manager, called me in Casper late one evening and asked me to go to the well site and supervise the fishing operation. Though the district manager would be at the well, he considered it important for me to be there as well. He wanted no mistakes. Such requests weren't all that unusual for a division engineer. We were a company born of technical no-how and marketed the same. A certain number of technical problems were normal in the daily activities of such business. I reveled in isolating and solving such problems, loving both the job and such activities.

THE FISHING TOOLS & I ARRIVE AT THE WELL

I headed southwest for the well as pictured in figure 14-46, arriving just before the fishing tools in the wee hours of the morning. I talked with the Schlumberger engineer, Rusty Bynam and he briefed me on the details of the situation. A few minutes later the district manager for the Rock Springs location drove up with the fishing tools as well as the adapters necessary to attach them to the drill pipe used by the drilling rig. Once again we reviewed the situation with Ed, the Rock Springs location manager, so we would all be on the same page when the work began. It would be a long night if all went well and, if it didn't; well, you can guess.

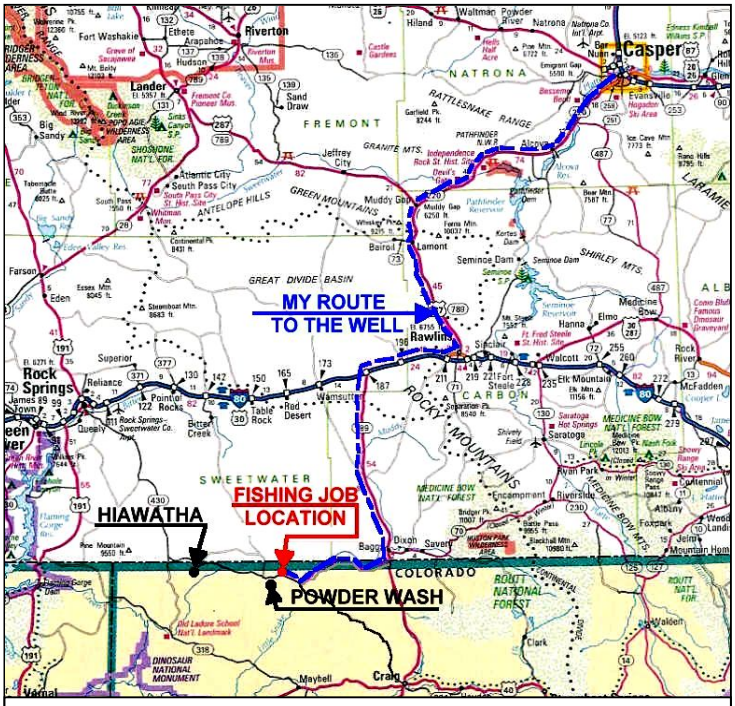


Figure 14-46 Illustration of the location of the Rock Springs fishing job and the "Abominable Snowman".

COORDINATING WITH THE TOOL PUSHER

Ed and I then went to the tool pusher's trailer and met with him and the company geologist, describing the process we felt should be followed. The tool itself was apparently stuck or at least cable stretch measurements indicated the cable was free to a point near tool depth. Such measurements are accurate within a hundred feet or so and there was no sandstone appearing on the logs nearby that might be a culprit for differential sticking. Of course, during the time required for the fishing process, changes down-hole could occur with differential sticking further up hole being added to the problem. We would have to be on our toes as the drill pipe was being lowered to tool depth. The tool pusher is always in charge of the operation and Schlumberger personnel are only advisors. We explain potential problems in recovering cable and tool while he makes the decisions and communicates the same to the rig crew who carry them out. Schlumberger personnel only operate their own fishing equipment but they must do so in complete synchronism with the activities of the rig crew if they are to complete the job in minimum time.

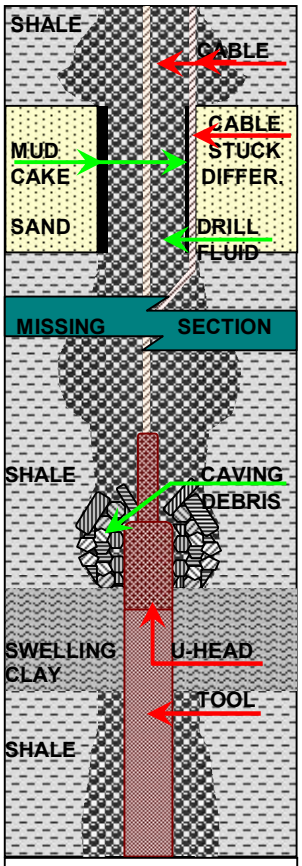


Figure 14-47 An illustration of the probable "well down-hole situation".

At this point, the reader may choose to review the cut and thread technique provided in chapter six, page 265. I will repeat special points therein, including some drawings, highlighting the differences between the two fishing jobs. Basic differences in engaging the fish result from the tool, itself, being stuck as opposed to only the cable being differentially stuck as described in that particular discussion.

FISHING PROCEDURES REVIEW

We'll begin by describing the fishing problem, as we understood it at this time as derived from tool response and stretch measurements. In so doing, we will refer to figure 14-47, illustrating the probable down-hole situation. The swelling clay is inferred from tool responses. The fill or debris shown on top of the tool may or may not be there but by the time the drill pipe reaches tool depth the odds are in that direction. In any case, the tool will be approached with that situation in mind. The differentially stuck cable did not exist when stretch measurements were made. However, this problem could be added to that of any swelling clay up the hole from the tool. Consequently, as the drill pipe is being run in the hole, the driller must be aware of this added possibility.

Figure 14-48 is a reproduction of figure 6-25, which has been added here for convenience. It displays the rigging up of Schlumberger equipment so the cable can be cut and threaded through the drill pipe. To accomplish this, a cable clamp is placed on the cable at the rotary table to temporarily secure the down-hole portion so the cable can be safely cut. The cable cut is made from five to ten feet above the rotary table depending upon well depth and deviation. Once the cable is cut, a Bowen cable overshot is secured to the top portion of the cable, or that which is hooked to the truck, while a Bowen spear is attached to the down-hole portion sticking up through the rotary table. The attachment of the latter is illustrated by figure 14-49. Notice the cable pigtail sticking up out of the well is threaded through the drill pipe or tool overshot before the spear is attached. These two pieces can be hooked together for a quick connection between truck and tool.

With that accomplished the driller lifts the first stand of drill pipe with the rig's traveling blocks and the cable overshot is dropped through the stand as pictured in figure 14-49. The cable overshot and spear are then connected and the excess cable pulled slowly into the hanging drill pipe by the truck. The rig crew secures the tool overshot to the drill pipe with pipe tongs. The overshot will eventually be used to grab a hold on the U-head or top of the Schlumberger tool, which is stuck. The cable clamp is then removed from the down-hole section of cable to allow the drill pipe to be lowered into the well and the operation is now ready to begin.

The driller slowly lowers the first stand of drill pipe into the hole and observes the remote tension meter located next to his console. Note its location in figure 14-48. This meter registers

the weight or tension being experienced by the Schlumberger logging cable. Should the tension dramatically increase at any point in the operation, he would raise the pipe and relieve the tension. Action would then be taken to solve the problem. Failure to do so can result in cutting of the cable down-hole, with greater consequences.

With the first stand in the hole, the rig crew drops the slips around the pipe to secure it and places a so-called C-plate around the cable on top of the drill pipe. Refer to figure 14-49 for clarification. The C-plate provides a place for the bottom of the Bowen spear to rest so it can't fall down inside the pipe when the Bowen cable overshot is disconnected. The Schlumberger winch operator lowers the cable until sufficient slack allows the overshot and spear to be unhooked before the rig crew begins the trip in the hole.

GOING IN THE HOLE

At the same time the spear and overshot are being disconnected, the driller raises the blocks back up where the man on the monkey board latches them to another stand of drill pipe. As this stand swings into place over the top of the rotary table, the cable with its overshot is being raised back up to where the derrick hand can grab it and drop it into this second stand of pipe. Once again it is quickly lowered and appears at the bottom of the pipe hanging in the derrick. See figure 14-48 once again. The floor hands hook the overshot to the spear and pull the C-plate as tension is applied to the cable. The slips are then removed from around the pipe and the second stand is lowered in a manner similar to the first, i.e. with care. This process continues until drill pipe with the tool overshot approach the general vicinity of the tool. At that point the operation ceases to allow discussion the tool engagement.

If the cable tension increases significantly at any depth while the drill pipe is being lowered, the probable cause is the cable differentially sticking in the mud cake opposite a sand reservoir. See the illustration of figure 14-47 as well as chapter 6 for an explanation of this phenomenon. Of course, the Schlumberger crew operates the cable in conjunction with the rig crew's activities to help relieve such a problem. My responsibility was to confer with the drilling supervisor and provide proper information so he can advise the

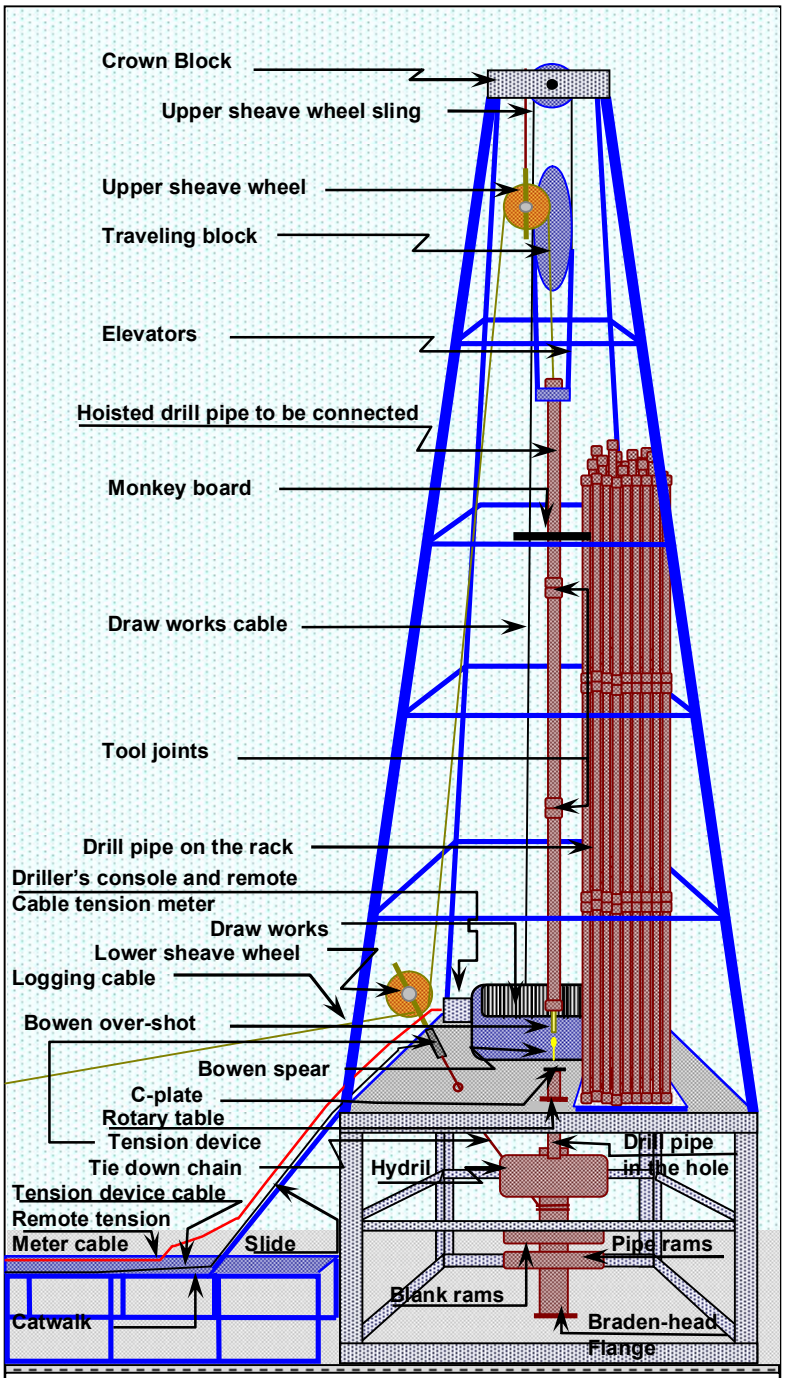


Figure 14-48 A simplified drawing of Schlumberger's equipment configuration during a cut & thread operation.

driller how to extricate the cable. Once this is done, the operation continues as described.

APPROACHING THE TOOL

As mentioned earlier, we assume a certain amount of debris has fallen in on top of the tool during the descent of the drill pipe. Such debris must be removed before the tool overshot can engage the U-head of the tool. This is done by circulating drilling fluid down the pipe and up the annulus as the pipe is being lowered. When the U-head has approached within 30 feet of the tool, a circulating sub is attached to the top of the pipe sticking up through the rotary table. This requires the disengagement of the cable spear and overshot with the latter being raised up in the derrick out of the way. The circulating sub secures the spear and allows the Kelly to be attached to the pipe. The mud pumps are then started and the pipe slowly lowered while the system circulates mud and removes any debris in front of the down-hole tool overshot. This part of the operation is critical to the success of the fishing operation. A mistake can foul or clog the overshot, resulting in an insecure grip on the tool and thus, failure of the operation.

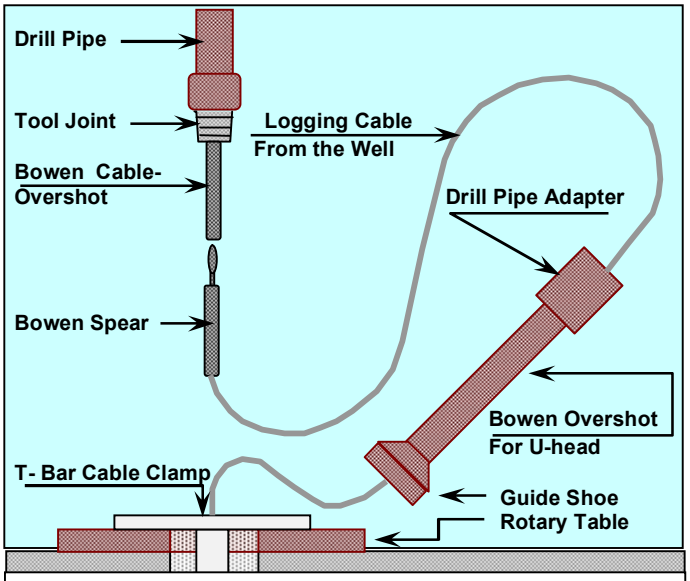


Figure 14-49 A drawing illustrating the process of threading the Bowen spear through the Bowen U-head overshot and latching it to the Bowen cable overshot prior to running the drill pipe in the hole.

To better understand the nature and the potential problems associated with the approach to the fish, consider illustration of figure 14-50. Assuming a worst-case scenario, the Kelly might be attached to the drill pipe about 25 feet plus from the top of the fish. Once this is done, there is no way to keep tension on the cable. As the 25 feet of closure on the fish is being made while circulating, the cable within the drill pipe goes slack and begins to bend. If this curling effect extends outside the tool overshot, which is quite possible, the cable can bend up along the overshot, become kinked and eventually parted from the drill pipe weight. At the very least, it will foul the overshot and prevent it from properly engaging the U-head fishing neck. To minimize this possibility, the distance from the tool at the beginning of circulation must be kept as short as possible. If necessary a short joint of drill pipe, i.e. 10 or 15 feet, can be added to that already in the hole to reduce the distance and consequently the potential for slack in the cable below the drill pipe. Now that we have covered various problems often encountered in a fishing job, let's get back to my story regarding the abominable snowman and its relationship, if any, to the fishing job. In reality, it's an interesting, or maybe not so interesting, appendage to the job.

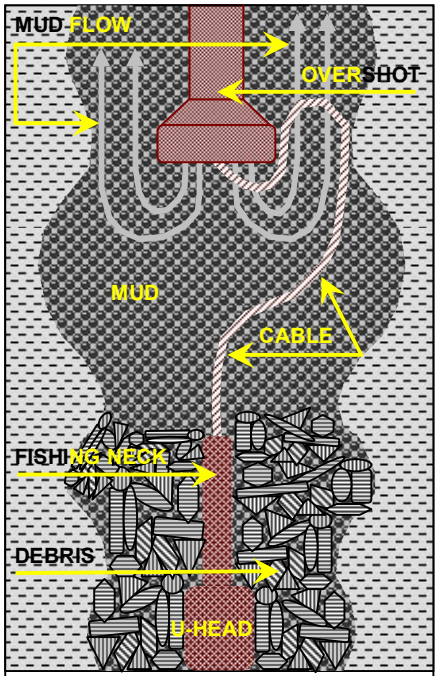


Figure 14-50 Illustration of the overshot kinking cable and possibly cutting it during the circulation approach to a fish.

BACK TO THE ACTUAL JOB

I described the probable down-hole situation as Ed and I understood it to the tool pusher and made recommendations regarding such things as speed of drill pipe descent, circulation during the approach to the fish and the danger of creating cable slackness in the well. He was very cooperative, wanting a trouble-free fishing job as much as I did. Soon he had instructed his drilling crew who, with the Schlumberger crew, began modifying our wire-line rig-up configuration to

that illustrated in figure 14-48. Before long we had the cable cut, and threaded through the first drill pipe stand. As usual, things went slowly at first and then speeded up as everyone became familiar with the routine.

Some four hours later, the drill pipe was approaching the fish. We reviewed the drill pipe tally, showing the measured depth of the tool overshot and found we could be within 15 feet of the tool by adding one joint of drill pipe of 30+ feet. This was done and we were now ready to make our approach to the fish while circulating and eventually engage the tool's fishing neck.

APPROACHING THE FISH

The circulating sub was added to the top of the last joint of pipe and the Kelly attached to it. The drill string was slowly lowered with the mud pumps running. There was some indication of fill about 6 feet from the tool, as the drill string paused momentarily and the rig's weight indicator dropped off but downward movement continued. We watched the mud pump pressure intently while looking for signs of the tool overshot slipping over the fishing neck of the U-head. Before long, our effort was rewarded. The mud pump pressure jumped up a couple hundred pounds and the drill string weight slacked off a little, indicating the overshot had been plugged with something (hopefully the fishing neck) and that it had also contacted a bridge or obstruction in the hole (hopefully the tool). After allowing the drill string to set firmly on the tool to properly engage the slips on the U-head, the driller eased the string upward. At first its weight increased and then dropped off as the tool came free. We observed that the mud pump pressure remained at the higher level indicating the U-head was still seated in the overshot. We had our fish hooked. Now we had to be sure we landed it safely.

RETRIEVING THE FISH

The next order of business was to get the cable out of the drill pipe so the rig crew could bring the drill string and tool out of the hole. The driller brought the Kelly and circulating sub back to approximately floor level and the sub was removed. The down-hole cable was hooked back up to the truck cable via the cable spear and overshot. As the driller raised the drill string 40 or 50 feet in the derrick, the truck winch operator raised the cable, thus verifying the tool was hooked and was also free to move. Had the tool not been moving up with the pipe, the cable could not be raised. With the fish securely hooked, it was time to break the cable weak point and bring the cable out of the hole. The drill string was dropped to rotary level and the slips dropped in the rotary to hold it. The cable clamp was then re-installed at the top of the drill string and the elevators hooked to it. The driller eased upward with the blocks and soon the weak point gave way and the cable came free. The cable spear and overshot were then removed and the two cable ends, i.e. truck and down-hole cable pieces, were tied together in a square knot and taped. The cable was then rolled back up on the drum of the truck and the Schlumberger equipment removed from the rig.

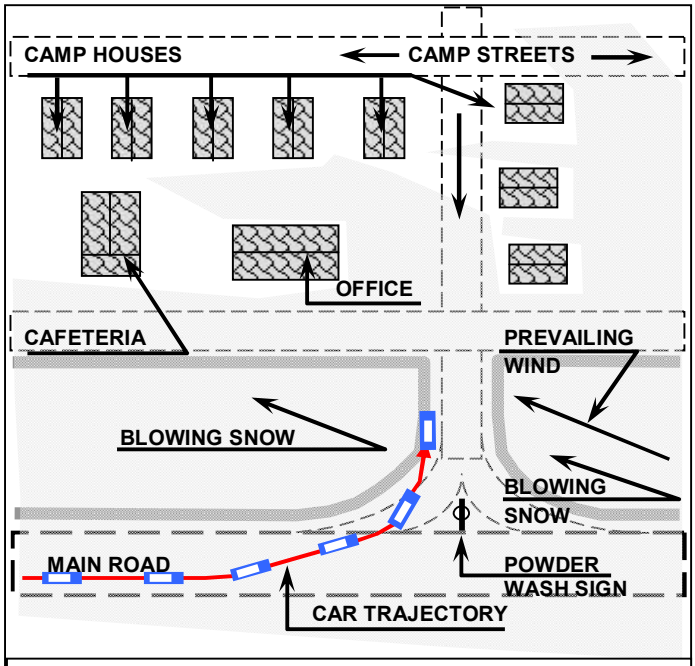


Figure 14-51 A diagram, which illustrates our entry into the premises of Powder Wash oil field camp.

Only the tool secured in the overshot 10,000 feet below the surface, was left to be loaded on the truck. It would be four hours before the tool was brought to the surface, considering they were pulling a wet string and had to chain out. We decided to get some dinner in the mean time at Mountain Fuel's nearby Powder Wash camp. See the map in figure14-46. They served regular meals on a specified schedule and we dared not be late. It had begun to snow during the fishing operation and six inches or so had piled up at the rig by the time we were ready to head to Powder Wash. Even so, it wasn't about to slow us up because of our hunger pangs and

our imaginations of full bellies. The combinations know no fear.

THE PRICE OF A MEAL

Ed, as well as the field engineer, Rusty Bynam and two operators, jumped in my car and we all headed for dinner. Everything went fine on the 5 mile or so trip to the camp entrance but the last 200 yards contained an unexpected thrill. As we neared the camp the snow was somewhat deeper, probably a foot or so, and was being blown by a prevailing westerly wind. As you can see from the illustration of figure 14-51, the road into the camp was connected to the main road by a rounded curve in each direction. The outline of the various roads is shown by dotted lines but the road edges were hardly visible. Buildings, signs and a bush here or there might infer the edges of a road but there was no clear outline of just where the edges were.

"What are you talking about? A good engineer can just back right out of here." After getting a couple of loud guffaws, I said, "Watch this" and I stuck it in reverse, gunned the engine and dropped the clutch.

I came to a stop near the Powder Wash sign but with a certain degree of confidence moved forward around the curve of what I imagined to be the road. Though I wasn't going fast, I suddenly found the car virtually buried in some 5 feet of snow. I had veered off the left side of the curve into a drainage ditch indicated by the gray lines. It appeared we were hopelessly stuck and would need a truck or maybe a Caterpillar or similar piece of equipment to pull us out. Things didn't look too good.

Figure 14-52 A reasonable facsimile of the "ABOMINABLE SNOWMAN" after our return from Powder Wash camp to the rig.

Almost immediately I heard Rusty say, "If the division would approve 4 wheel drive vehicles for engineers, you could get out of here. Ed then chimed in with something like the following. "This is a good case for you to take to Kudrle to explain why we need Chevy Blazers for the field here in Wyoming." I had heard that argument before and I knew approval had to come from Houston, which would never happen. Their position was that "such vehicles were unnecessary and would only be used for hunting, fishing and generally touring the backcountry during an engineer's days off". Though I didn't think I had a chance, I came back with, "What are you talking about? A good engineer can just back right out of here." After getting a couple of loud guffaws, I said, "Watch this" and I stuck it in reverse, gunned the engine and dropped the clutch. We were not only half buried but also in a shallow sided drainage ditch and it would take all the power old blue had to get back on the road. Like a miracle, we sailed backwards up the incline and on the road with hardly any spinning of the wheels. All I heard was gasps of surprise and all went silent. I nailed the case firmly closed by adding, "What we really need to do is teach our engineers how to drive." Nothing more was said and we drove over to the cafeteria just in time to get dinner.

After eating, we headed back to the rig. It was now snowing even harder. The flakes were big, wet and sticky. The wipers wouldn't clear the windshield and I could hardly see the road ahead. It wasn't too cold and I decided to lower the window to see the road more clearly. That worked better and soon I was headed down the road about 30 or 40 miles per hour. Wherever the road cut along a hillside I could easily tell where the road was but when we crossed a flat area it became a matter of guesswork. I would slow down and inch my way along. Occasionally, I would have one of the guys get out and walk through such areas. I didn't want to trust my luck again. The earlier miracle wasn't apt to repeat. We came to the rig road and Rusty just stayed out and jogged all the way to the rig because of the blending of road and wayside in the winter's landscape.

We pulled up to the rig and I pulled my head back into the car. Everyone began laughing while Ed remarked, "Obenchain, check the

mirror". I did and all I could see was a snowman with two dark eyes peeking out, somewhat like that shown in figure 14-52. The wet spring snow had covered every part of my face producing a reasonable facsimile of the "Abominable Snowman". Now you know the rest of the story and the reason for the title.

CHURCH RELATED EXPERIENCES

The church building that I spoke of as being just across the street is pictured in figure 14-53. It was a little unusual, in my experience, in that it was an all white cinder block building trimmed in gold, whereas most such buildings are of brick. It looked similar to many modern day temples of the Church. Inside it was a typical ward building with a chapel, various classrooms, a relief society room, a cultural hall with a kitchen, and a baptismal font as well as stake offices, it was the Casper stake center.

We had monthly ward socials or dinners, which were invariably well attended. In those days, the use of paper plates was unheard of at church dinners. Consequently, many of the ward brethren and I spent hours after such a function pearl diving in the kitchen sink. I suppose I washed more dishes in those few years than I have all the other years of my life, including those years we were assigned while growing up in Boise. Fortunately, the use of paper plates came into being some few years later, a blessing I have always appreciated. I never felt nice dishes added any enjoyment to the meal anyway.

THOMAS JAMES' BAPTISM

Tom reached the ripe old age of eight on December 22, 1972. He was interviewed for baptism by the bishop on his birthday, as I remember and baptized the following Saturday. I was given the opportunity to perform the baptism, my second such effort and, believe you me, unlike my effort with Celeste; I used the right scriptural ordinance from the Doctrine and Covenants. A few people from the ward as well as family attended the baptism and Esther served some light refreshments. The next day, Sunday, I had the privilege of confirming him a member of the Church. For me, it was rather nerve racking, being my first such experience in front of a church congregation. I guess I got his confirmation right because I wasn't asked to repeat it, as had been the case for Celeste's baptismal ordinance. I'm not sure just what I said other than "Amen" at the end.

PERSONAL CHURCH EXPERIENCES

I had been a member of the Church for about 9 years when we moved to Casper. I had served as an assistant ward clerk, a counselor in the young men's presidency, an Elders Quorum president, a young men's president, and a Sunday school teacher for 12-year olds. I suppose I had spoken in Sacrament meeting a couple of times but I didn't do well in the latter role because I was nervous as a goose on the menu for Christmas dinner. I realized I was a novice at best in gospel matters and didn't feel competent to speak on such subjects. I could do okay on technical subjects with Schlumberger because I was more of an authority, I suppose, but when it came to church, I was a case of nerves. It seems as though the Lord understands what kind of medicine we need better than we do because I continued to be called to positions I felt totally incapable of fulfilling. A case in point was my calling as a Gospel Doctrine Teacher in Casper, Wyoming. I knew very well that many people in the class were better versed than I was in the scriptures but call me they did and after several excuses I accepted. My only relief was that I came clean in my first class and simply told them how I felt but that I would try to serve to the best of my ability. As time wore on, I felt better after realizing no one would try to put me down or otherwise demonstrate they were more capable than I. Needless to say the calling was a

Figure 14-53 A 2003 photo of our chapel. In our day the trim was gold rather than the brown in the photo.

definite learning experience as have been most of my church callings. By the time I was released I could almost say I enjoyed it. I had learned more doctrine than I had ever dreamed possible due to the study I put forth in preparation and the discussions that always seemed to ensue.

AN ELDERS QUORUM REPLAY

In late 1973 or there about, if my memory serves me correctly, I was called as a counselor in the Elders Quorum where I served until the summer of 1974. I suppose I learned more as a counselor that year and a half than I did as Elders Quorum president some 4 or 5 years earlier. The first time I was like a blind driver, who had no idea of where he was going, trying to guide the Elders Quorum in their duties. In that case, I doubt that I helped the quorum at all but I did come to realize that such callings had to be taken seriously. I didn't like failure, which was an unacceptable word in my vocabulary. Even so, I would have to describe my first such effort in those terms. Consequently, I was somewhat better prepared to be a counselor this second time around and have always felt the two roles should have been reversed.

I was somewhat better prepared to be a counselor this second time around and have always felt the two roles should have been reversed.

I don't mean to imply I'm now an extrovert, much less a good conversationalist but I do realize there is much more to life than technical expertise of one sort or another.

I finally became more aware of the purpose and importance of the home teaching program, which I still hold to this day. As a presidency, we did our best to improve our home teaching results in terms of both quantity and quality. The bishop's executive secretary, Don Judd, pushed us unmercifully for improvement in the number of families taught. I became very aware of how difficult it was to get things done through other people who were participating on a volunteer basis. Realizing our examples as a presidency were critical to the quorum's success, I became very diligent in my own assignments as a home teacher. This lesson has stuck with me and I can still honestly say my personal efforts have been at a level of 90% over the intervening 25 to 30 years. To this day, I believe this program is one of the most important factors for priesthood development as well as individual member and family activity. Along with President Benson, I know this program is divinely inspired and believe those who are negligent in their responsibilities will have to answer for the results. More importantly, they miss the growth opportunities provided by magnifying this calling.

PERSONAL HOME TEACHING EXPERIENCES

My effort to accomplish my assigned home teaching over the years has been a blessing to me in several ways. I remember how difficult it was for me to carry out such assignments in my early years in the Church. As I have previously mentioned, I was an introvert and had little interest in visiting with other people and particularly those who weren't too happy about my visit. I much preferred to work on some technical problem as opposed to socializing with others. My experience as a sales engineer had helped some but that withdrawn personality of mine was still there. In my defense, I can say I felt an obligation to carry out assignments whether in the Church or in secular life. As a result, I often made visits of a painful nature, i.e. those where a member would leave the TV on after inviting you in and would only grunt or utter a yes or no to comments we made. Not being very gifted in a conversational way, my questions and comments were somewhat less than stimulating, I feel sure. Even so, I persevered and things began to be easier. Either my visiting techniques became better or my hide became thicker and I ignored the obvious boredom of some members I visited. In any case, at this stage of my life, I have grown to enjoy home teaching and find, most certainly, it has helped me become less introverted. I find it much easier to carry on a conversation with casual acquaintances and to generally enjoy social interaction to a greater degree. I don't mean to imply that I'm now an extrovert, much less a good conversationalist but I do realize there is much more to life than technical expertise of one sort or another. I firmly believe that real joy comes through family, friends and the resulting social interaction. Talents of various sorts are only tools, which can increase our usefulness to society in general as well as provide the bearer of the same with a certain measure of joy. The joy emerges as the fruit, and results from social interaction, service and close relationships begin to emerge and expand the introverted personality to realization of other possibilities.

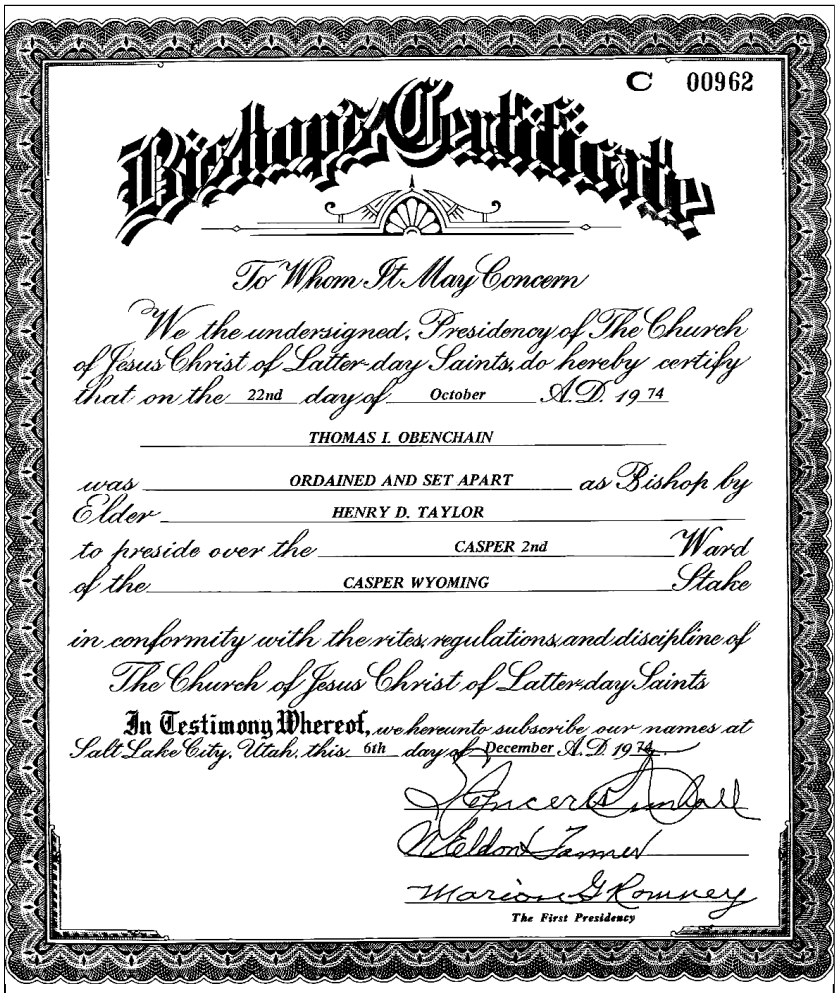
A NEW BISHOP IS CALLED

In early 1974 a new bishop was called to serve in the Casper second ward in place of Bishop Perkins who had served long and faithfully. Rumors regarding just who would be called were plentiful as is the usual case. Mostly, they constitute someone's opinion or wish, as opposed to fact. The stake president will guard the name of the individual involved closely while it is being submitted to Salt Lake for approval. The process was relatively short lived and soon we had a new bishop. His name escapes my memory like so many other things at my age but I do remember him as being a lifelong member and a very capable man. He had my respect and I was ready to serve where needed. However, I was happy in my present calling and continued to serve as a counselor in the Elders Quorum presidency with his guidance and direction.

All went well until late September when the new bishop announced he would be leaving for a different job in Utah. Once again, rumors flew and almost everyone seemed to have an opinion of who would be called except me. I was aware of a couple of capable men but didn't really know how such decisions were made. I only knew I didn't have to worry because I was only an elder with 11 years church experience. They would call someone who had been around the block a few times and gained the necessary skills and knowledge. Almost any Melchizedek Priesthood holder would be more fitted for the call than would I. There were several men with the office of High Priest in the ward as well as a few Seventies. Any of them could probably fill the call without a problem. Nope, there was no need for me to be concerned. However, new bishops tend to reorganize the various auxiliaries I couldn't help but wonder just what changes might occur and would I be involved in some new call.

MY CALLING AS BISHOP

Well, it didn't take long for me to understand the error in my thought process as well as the phrase, "The Lord works in mysterious ways", a little more clearly. Within a week or so, I had been called as bishop. Why, was beyond my understanding. I was only an Elder, whereas the bishop's two counselors were both high priests, a requirement for that calling. They also had experience under the old bishop and I had none. Logically, in my book, they were infinitely more capable than I. Also, I was traveling a good deal with my job with Schlumberger while handling the various technical blips that seem to crop up. It just didn't seem to make sense.



C 00962

Bishop's Certificate

To Whom It May Concern

We the undersigned, Presidency of The Church of Jesus Christ of Latter-day Saints, do hereby certify that on the 22nd day of October A.D. 19 74

THOMAS I. OBENCHAIN

was ORDAINED AND SET APART as Bishop by Elder HENRY D. TAYLOR

to preside over the CASPER 2nd Ward of the CASPER WYOMING Stake

in conformity with the rites, regulations, and discipline of The Church of Jesus Christ of Latter-day Saints

In Testimony Whereof, we hereunto subscribe our names at Salt Lake City, Utah, this 6th day of December A.D. 19 74.

Spencer W. Kimball

N. Eldon Tanner

Marion G. Romney

The First Presidency

Figure 14-54 The Bishop's Certificate certifying my being ordained to a High Priest by Henry D. Taylor, an assistant to the Twelve, and signed by all members of the First Presidency, i.e.; Spencer W. Kimball, N. Eldon Tanner & Marion G. Romney.

The call was issued to me on a Friday evening. I had been traveling all week and returned home

from Vernal, Utah when Esther said to me, "President Warr, the stake president, wants you to call as soon as you get in. He didn't say what he wants but would like to talk to you". Silly as it may seem, I had had a premonition that I would be called while I was on the road home that afternoon. I told Esther, "I know what he wants. He is going to call me as the new bishop". Esther was stunned, as was I. How could I make such a statement when my qualifications seemed lacking? I will discuss later in more detail the way I knew of the call. Anyhow, I met him in his office and we talked briefly. After asking me several questions regarding my personal life, he mentioned his purpose for seeing me. I then shared my afternoon experience with him. That seemed to confirm in his mind that I was the right person and the call was issued. I explained the many reservations I had about my ability to fill the call including my rather introverted nature and the difficulty I had speaking in front of people. He assured me that both he and the Lord would support me.

I was flabbergasted to say the least but I accepted the call with some reservation. I had learned to accept challenges as they came in life and with his assurance believed the Lord would guide me in my efforts. However, this was a calling, which was foreign to my nature. I wasn't concerned about the administrative aspects of the call. These I could handle with a little experience. I was more concerned about presiding over people with more gospel understanding than I had as well as conducting interviews with such people. I would probably have declined had I understood all the responsibilities of a bishop, which now seem to be legion. The Lord, however, knowing me better than I knew myself, must have felt the experience was necessary for me, even though its value to the ward was questionable. In any case, the following Sunday I was sustained by the congregation and told I must go to Salt Lake to be ordained as a high priest and set apart as bishop.

…. Esther said to me, "President Warr, the stake president, wants you to call as soon as you get in. He didn't say what he wants but would like to talk to you".

An assistant to the Twelve Apostles, Henry D. Taylor, accomplished this on October 24, 1974 as evidenced by the "Bishop's Certificate of figure 14-54. This was a choice but humbling experience, i.e. being ordained and set apart by an Assistant to the Twelve. I had never, in my previous 12 years of Church service, had such an experience. Even so, I soon found out that serving as bishop was no part time job.

A FEW EXPERIENCES AS A BISHOP

I launched into my new calling with fervor. I knew little about the responsibilities and probably understood that better than anyone else. I spent virtually every evening I was in town, except for Mondays, in the bishop's office studying manuals, planning and meeting with various members of the ward. We had a bishopric's meeting at 7:00 AM each Sunday followed by a PEC (Priesthood Executive Committee Meeting) or Welfare meeting. Sunday school started at 10:00 AM followed by Priesthood. The morning meetings were finished by 12:00 and Sacrament started at 7:00 PM in those days. In between, I would spend the afternoon meeting with various members for various reasons. About 5:00 PM I would go to the house for supper and be back at the church by 6:30. There seemed to be so many things that I didn't understand and I frequently felt ignorant in the discussion of ward matters in the Sunday morning meetings. Whether others were as aware of my incompetence as I was, I don't know. I wasn't about to tell them. I often contacted the stake president, President Warr, regarding matters troubling me and asked for guidance in my decisions. He was helpful but I usually sweated over such matters before contacting him because I didn't want to make my ignorance too obvious. I'm sure he had watched other new Bishops struggle and didn't worry too much about my learning curve. In every case, thru questioning, he guided me to an answer.

In those days, members were asked to pay their tithing and, in addition, a budget, a fast offering and sometimes a building assessment. Many paid without apparent difficulty but others struggled financially. To lessen the impact of budget contributions, the ward had various money raising activities. We might have cake auctions, ward dinners or a number of other activities. I knew the amount of money required to run the ward from previous years' records. As a bishopric, my counselors and I would agonize over how much to assess each family for the budget and how much money to raise with assorted activities. We began having monthly socials for which we charged a fee and asked ward members to contribute the food. Ward

members were good about volunteering their services as well as the food. They understood the need and the socials were well attended. The priesthood set up tables, etc. while the relief society sisters did the cooking and serving. The priesthood also did the pearl diving (dish washing) after the meal and the sisters cleared the tables. Paper plates were taboo in those days and the cleanup was a job in itself. Anyhow, the dinners and other activities were successful and we met our goals via that means for the budget.

When I was released at the end of the year, the budget process was going well. Setting it up was probably my only real contribution to the ward in the short time I was bishop. I look back now and often wonder what many of the ward members must have thought about my decisions and activities as bishop. They couldn't help but be aware of my inexperience and my stumbling. My lack of confidence had to be painfully obvious to those I worked closely with. It seemed I was beset on every side by problems requiring my decision and speaking before the ward was stressful to say the least. The main thing I can look back on with a degree of satisfaction was my effort. No one could fault that, except maybe my family. My job and calling gave me little family time.

I had a strong first counselor who had also been a counselor to the previous bishop. He was a good man and seemed to harbor no hard feelings over my calling. I listened closely to his recommendations and left decisions in his hands when I was out of town. I think now how much more competent I would have been, had I served as a counselor before being called as the bishop. My service in this calling was akin to my calling as Elders Quorum President some 10 years earlier. The experience was much like one I had as a child of maybe 11 or 12. I was at a church camp at Payette Lakes, sitting on a floating dock when a kid pushed me in. I was on the side facing land, which was probably 30 yards away. Even so, the water was about twelve feet deep and I quickly sank to the bottom. My lungs were full of air and I could see the bubbles as I gazed upward through the water. I pushed upward from the bottom and, by natural instinct I guess, swam or flailed my way to the surface. When I surfaced I was next to the dock and grabbed a hold of the ladder nearby and climbed back on to it. I was a little scared but pleased with my accomplishment. Well, now I was in over my head with my calling, as well, but my flailing efforts seemed to be doing some good. The good Lord had seen me safely through my experience at the lakes and it was up to him to guide me safely through this calling before the ward members complained.

It was a humbling thought, i.e. realizing my service would be missed about like the hole in the proverbial bucket of water when a submerged hand is withdrawn.

AN OPPORTUNITY COMPLICATES LIFE

Around the first of December on a Thursday or Friday, Bob Kudrle and the manager of corporate personnel, Mr. Gallager, as I remember, from Houston appeared at the division center. It was then that I was offered the job as Technical Manager of Schlumberger Offshore Services. I guess my sonic solution had not gone un-noticed. It, and I feel confident, Bob Kudrle's assessment of my work as a division engineer had apparently earned me that opportunity. I was stunned, to say the least, not having even expected such a possibility. We talked quite a while about the problems involved and the reporting date, which was the end of January. They would want me to make a preliminary visit in December to be briefed by the Division Manager and my predecessor by the name of Will something or other. During the whole conversation my mind kept going back to the fact that I had only been serving as bishop for a couple of months. Though I had warned President Warr about a possibility of transfer, I didn't really expect anything so soon. I explained my predicament to Messrs Gallager and Kudrle along with my reservations. They assured me that the decision was up to me. I asked if I could give them an answer on the following Monday. They agreed and left.

That evening I met with President Warr and explained the situation. I said I was prepared to turn the offer down if he felt I should stay on as bishop for a longer period. He wouldn't say but simply answered, "Brother Obenchain, it's up to you. Go home and pray about it and then make up your mind. Then let me know". I agreed and went back to the house. That evening and throughout the weekend, as I had time, I pled with the Lord for an answer. I was prepared to do as He might indicate. I have never prayed more earnestly in all my life. I felt an obligation to fill my calling for a reasonable period of time but I also knew such a professional opportunity

wasn't apt to reappear anytime soon. I also knew I could serve in some capacity in New Orleans as well. What was I to do? I didn't expect a voice from Heaven telling me to stay or go but I did hope for a strong feeling one way or the other. None came as the weekend wore on.

On Monday morning I was still as undecided as ever. During breakfast, I talked the offer over with Esther once again and she was prepared to do whatever I decided. I became painfully aware that no one, not even the Lord, was going to make this decision for me. I still vacillated as I made my way to the office that morning. I had to call Bob Kudrle with my answer by 10:00 AM. Finally, I thought to myself, "I know there are men more capable of serving as bishop in the ward than I and I can serve anywhere I go". It was a humbling thought, i.e. realizing my service would be missed about like the hole in the proverbial bucket of water when a submerged hand is withdrawn. I then realized the call as bishop was for my benefit and not really that of the ward. Today, I also understand more fully the saying, "He whom the Lord calls, He will prepare". Our success or failure in such matters depends upon our spirituality or our sensitivity to the promptings of the Holy Spirit. Did I want additional experience as a bishop or did I want to pursue my vocation and take what the Lord had to offer in Louisiana? I chose the latter and called my boss.

A PRELIMINARY VISIT TO NEW ORLEANS

My dear daughter, Valerie and her husband of somewhat over a year, Jared, influenced the timing of my preliminary visit. She was expecting her first child around the first of February and Jared was in the throes of a transfer to Huntsville, Alabama. They had been struggling financially and he had decided to enter the army the preceding August or September to become eligible for the GI Bill. He would then complete college to assure a better future for the two of them. Valerie had intended to join him in Huntsville somewhat earlier.

He had been scheduled to go to his assignment there in early November but had been delayed for some reason. Now he had a definite date, which was the 12th of December according to Valerie's memory. In any case she asked me if I would drive her to Huntsville on my way to New Orleans. She had a little Mercury they had bought earlier in the year and they had obtained an apartment through a member of the Church in Huntsville. I could then rent a car and drive to New Orleans for my preliminary meeting. That sounded reasonable and I could then fly back to Casper and wind things up there regarding my calling as bishop and my job. I planned to return to New Orleans in late January to begin the new job and take my time finding a house. Esther would remain in Casper until school was out and hopefully sell the house in the meantime. She would also fly down once to look at houses and help make the housing decision. I would fly back sometime in early June to drive my family to the new location.

As I remember, we took off early on a Friday morning after loading up the few belongings Valerie had to take with her. Once there, I would get her settled before going on to New Orleans. Jared was due to arrive a few days later. We struck out across Nebraska on Interstate 80, which still had areas of construction going on. We must have spent a night somewhere in eastern Nebraska or northern Missouri but I can't recall just where. At any rate, we left the interstate at Lincoln and went due east into the southwestern tip of Iowa. There, we cut south into Missouri. I don't believe Interstate 29 was in existence at the time. I do remember wanting to avoid major cities in so far as possible and I moved east far enough so we would miss Kansas City. Our route took us by Adam-Ondi-Ahman, a Mormon Shrine, in Davis County, Missouri. Valerie wanted to stop but I declined because I had a schedule to keep. We had been stopping at regular intervals to give Valerie a chance to walk around a little. I was somewhat concerned about her because of her pregnancy but as it turned out, maybe not enough. I also wanted to get into Tennessee before stopping for the second night, if possible. That way we could get into Huntsville the next day, Sunday and maybe I could head on to New Orleans by Tuesday or Wednesday.

Soon we were on our way, traveling on a rather old ferry. We sat in the car during the crossing and could see little because it was dark.

We came into I-70 east of Kansas City and stayed with it until we approached St. Louis. Once again I took a detour around that city, cutting around the southwest corner to I-55 and south along the west side of the Mississippi River. I had planned to cross the Mississippi at a bridge leading to Dyersburg, Tennessee but changed my mind when I saw a sign pointing to

a ferry near Portageville, Missouri. It was getting dark when I asked Valerie if she would like to go across the river on a ferry. She was game and it would be a new experience for both of us, so we headed for the river on Missouri 162. We had about a half hour to wait before we could board. I was surprised by the amount of traffic waiting to cross. Soon we were on our way, traveling on a rather old ferry. We sat in the car during the crossing and could see little because it was dark. In fact, there was no moon out because of clouds, I suppose, or maybe the lunar cycle. Before long we were back on the road and reached Dyersburg around 8 PM. I do remember getting a room at a Scotsman Inn, which fit my rather cheap nature perfectly. After a little dinner, we retired around 10:00 PM, I would guess. The beds were satisfactory or maybe we were just plain tired from a long day. In any case, we slept well and were up by about 7:00 AM. Valerie was simply Valerie, an impatient young woman who wanted to be on her way. She had things to do and couldn't wait to see her husband.

After a little breakfast, we were on our way again traveling southeast on US 412 to Jackson while staying well east of Memphis. At Jackson we grabbed US 45, heading south to Corinth, Mississippi.

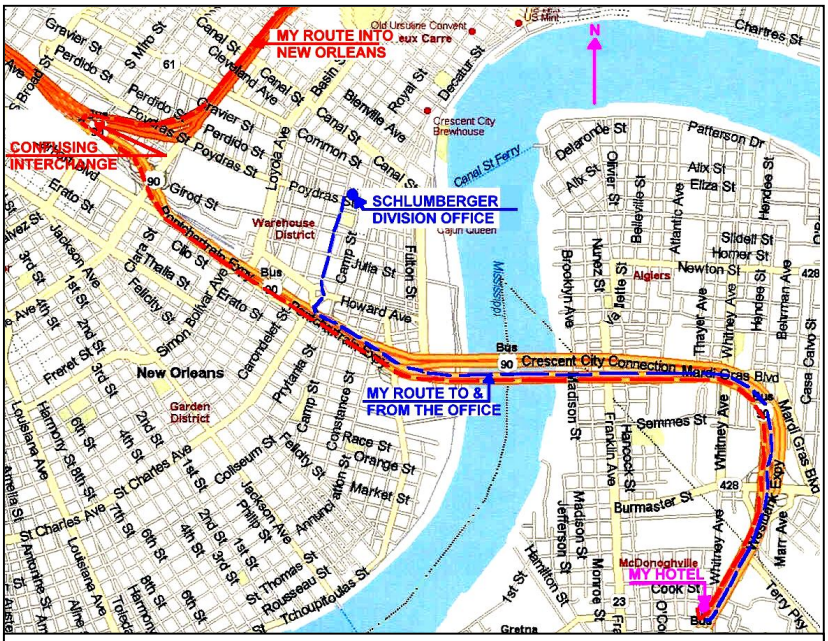


Figure 14-55 New Orleans inter-city map and the main Mississippi River Bridge connecting the east and west banks.

Just after entering Mississippi, I decided to make a pit stop at an old country service station. I don't remember how Valerie fared but the men's room was about as disgusting as any I had ever run into. I was glad to be able to relieve myself in a standing position. Needless to say, we didn't linger, even to buy gas and continued on to Corinth. There we headed east on US 72 into Alabama. The countryside became very beautiful on this leg of the trip, being covered with southern pine and rolling hills. This day's drive was considerably more pleasant than that of the previous two days. I knew we would arrive in Huntsville early and didn't feel pushed. We arrived in Decatur, Alabama early in the day, turned north across the Tennessee River and then northeast to Huntsville, arriving in the late afternoon, if my recollection is accurate.

After looking the town over a little, we found the apartment she had obtained through the Church. I also vaguely recollect helping her find the church building that day. She tells me there was a grocery store near the apartment. I suspect we got a few groceries for dinner and spent the night in her new home. At least, I don't remember a motel in Huntsville. Like many other things in life, it's unclear to me where or how long I stayed or just what I did to help Valerie get settled before I left. She apparently felt well and had no repercussions from the trip, as far as I knew. I didn't worry much because Jared would arrive later in the week. However, I'm confident I didn't just dump her and leave. Had I been so unfeeling, I feel sure Esther's wrath would have descended upon me and made the experience quite memorable.

Lack of such memory is a good indication that I fulfilled my role as a thoughtful father. Esther had been concerned about the trip from the beginning and just how well Valerie would survive the ordeal. She was looking forward to her first grandchild with great anticipation and worried about his premature birth. Knowing that, I am confident that we called Casper to let Esther know of our safe arrival and just how Valerie was doing but I must admit memory of such an event is long gone. Of course, my mind was also focused on my new job and just what would come up after I arrived in New Orleans.

MOVING ON TO NEW ORLEANS

I would guess about Monday or Tuesday of that week, Valerie was settled and I headed for New Orleans in a rental car. I remember that Interstate 65 into Birmingham was still under construction as was the combined interstates 59 and 20 leading on to Meridian, Mississippi. The traffic was heavy and the going was very slow around Birmingham. Frequent detours and unfamiliarity with Birmingham didn't help either but somehow I arrived safely in Meridian and swung south on I-59 to New Orleans, arriving there in the late afternoon.

At the recommendation of the New Orleans Division Office I had secured reservations at the Sheraton Hotel on the west bank of the river. Although known as "the beer can", the rates were reasonable, the room decent and the location fairly accessible to the office. See the map of figure 14-55.

I paid little attention to the map of the city other than finding the hotel's location on the Westbank Expressway in the suburb of McDonoghville. My route through the city was rather circuitous, to say the least. As illustrated by red dashes in figure 14-56, I came into the city from the northeast or the obvious direction. However, being surrounded by flat land, swamps and trees, any sense of direction that I might have had was lost. The exit from I-10 to the Pontchartrain Expressway was difficult to negotiate, as I remember and the turn is only shown on the map in general terms. I crossed the Mississippi River Bridge, a sight in itself and rounded the turn to the north, or so I supposed. I checked in, had dinner and prepared for my preliminary meeting with Frank O'Brien and other personnel at the office. My first order of business would be to understand the job I was accepting and to become acquainted with people with whom I would be working. From there I would become acquainted with other division personnel.

"I want Y'all to look out windows at that white stuff covering the ground. You folks from east Texas and Louisiana take a good look. I want you to know that ain't rice and that ain't grits and y'all better bundle up and watch your step when you get off the plane".

I headed for the office bright and early the next morning and amid the traffic, realized the sun was at my back while crossing the river. How could that be, I was going to the east bank and should have fought the morning sun along with other motorists. I was confused. I found a parking garage near the office and made my way up to the 17th floor, as I remember, and found the office. I introduced myself to the visible people in the office. I met Bill Alley, the Division Cased Hole Sales Manager and Fred Williams, the Division Open Hole Sales Manager. I knew Fred from the Rockies as a district manager but Bill was new to me. Of course, I had also known Frank when he was Rocky Mountain Division Manager. I spent some time discussing my responsibilities with him and then the remainder of the day with the Division Technical Manager, a Will something or other (I still can't come up with his last name). He was retiring and moving to New Mexico.

Later, we toured the Offshore Division Maintenance Center at Belle Chase, which would be under my supervision. Tommy Nichols managed the center. Noel Boudreaux, the Division Engineer also had his office there. I had never met Tommy but was familiar with Noel, having met him at the Division Engineer Conferences in Houston. I was also introduced to all the personnel working for Tommy and Noel. During the return trip to the office late that afternoon, the sun was in our eyes as we made our way back across the river. I mentioned to Will that something was backwards since we were going to the east bank. The sun had always set in the west anywhere else I had lived and I didn't suppose Louisiana should be any different. He laughed while responding; "Didn't you know the river flows north at this point in one of its many meanderings"? I admitted that I didn't but that was the obvious explanation. After leaving the office and getting back in my car, I checked my map. What do you know, he was right and at that point, the west bank is the east bank. Figure 14-55 illustrates that fact. I wonder if my readers know that little tidbit.

I realized at this time that I had taken on a job with considerably more responsibility than what I was used to. Though my strength was technical in nature, this job would be management heavy with my technical expertise being a resource to draw upon. Could I handle it? I wasn't sure how well I would do but I wasn't one to back down from a challenge, either. I decided I would give it my all and let the chips fall where they may.

The next morning I drove to the airport, The New Orleans International Airport, and grabbed a

plane for Casper. I would change planes in Denver and be home by supper. I had talked to Esther and she would meet me at the Casper airport. It was smooth sailing but as we made our approach to Denver, the pilot came on the intercom to give us a weather update. It was snowing lightly and the ground was covered with 4 or 5 inches of snow. After giving us the update he changed his voice to a rather good Cajun dialect saying, *"I want Y'all to look out of the windows at that white stuff covering the ground. You folks from east Texas and Louisiana take a good look. I want you to know that ain't rice and that ain't grits and y'all better bundle up and watch your step when you get off the plane".* That drew a good laugh and, I am sure, prepared the unwary of what they were about to experience. They would find the stuff more like ice cream and the air like a freezer after deplaning.

I transferred to Frontier Airlines after deplaning and was on my way to Casper soon thereafter. Esther did meet me, as I mentioned earlier but before leaving the airport, I stopped in the men's room for some bladder relief. As I stepped up to the urinals, I noticed a sign, which may have been there before but gone unnoticed by me. It read, "Pilots with short landing gear please taxi up close to prevent environmental accidents". Considering my plight and mirth, I almost had an accident. I suspect, in today's society, the sign could result in a class action lawsuit against the city, lodged by those who had been denigrated but who can say.

WINDING UP LOOSE ENDS

I took a little time to fix up a few small things around the house before placing it on the market. We weren't sure how fast it would sell but then, Esther wouldn't be ready to vacate until school was out. I continued in my calling as bishop until I was ready to report to New Orleans in mid-January, which included completing the year's end tithing settlements. I remember being busy with both church and job duties but other than that, activities are a blur.

My replacement as Division Engineer in the Rockies was announced in late December. He was a Canadian by the name of Larry. He would arrive in early January for a tour of the division and would take over soon thereafter. Bob Kudrle wanted him to tour the division with me, meet as many people as possible and spend a little time with the various instrument technicians. In the time available, the only logical way to accommodate such an effort was to charter a private plane for a week and visit all of the districts. There were 8 districts, one independent station in Grand Junction and a dependent station in Cutbank, which was managed by the Havre location manager. We would have a full week's travel on our hands if we visited all of the locations.

Larry flew into Denver where he spent some time visiting with Bob Kudrle and then came up to Casper that evening, a Monday I believe. On Tuesday, we met for breakfast and then spent some time visiting both the division center and the district, which was managed by Max Jensen. Bill Garbutt was now the instrument technician there, having been replaced as Division Instrument Technician by Bob Williams. We repaired some specialized tools at the Division Center. Bob was an excellent technician and acted as an advisor to other district technicians with difficult problems. He sometimes visited the other districts to help with such problems as well as provide training and an evaluation of the repair work being done. I only got involved if the problems persisted. After a brief visit at the division center in Mills, we drove across town to the district and spent the rest of the morning visiting with the district engineering staff and Max Jensen, the district manager, before heading to the airport to begin our rather lengthy tour, which is pictured in figure 14-56. We had a long week ahead of us.

The plane for our flight, chartered from Casper Air Service, was a twin engine Cessna, which seated a pilot and either 3 or 5 passengers. Soon we were on our way to Gillette, Wyoming. We would make a counter clockwise loop of the division as we worked our way around to the districts in the Rockies. Gillette is not more than a hundred miles north northeast of Casper. It seemed we were making our approach to the airport there before we had gained any appreciable altitude out of Casper.

Mike, the district manager met us at the airport and ferried us into town. The district office was on the south side of town not far from the airport. Gillette, at that time had two logging trucks and a perforating unit. Their logging services were performed in fresh muds and consisted primarily of the DIL or Dual Induction Log, the Sonic Gamma Ray Log and the FDC/GR or Compensated Formation Density Log. After Larry made an acquaintance with the available personnel in the district, we looked around the

facilities, chatted a little about service with its associated problems and headed back to the airport. We still had to get to Williston, a distance of 180+ air miles, to spend the night.

Once again the Williston location manager, Bud Hammer picked us up at the airport. It was after hours, as we made our way into town, so we visited with Bud over dinner. We made arrangements to visit the district the next morning. Soon after 8:00AM on Wednesday, we were there. Williston serviced the North Dakota area with 3 open-hole logging trucks and one cased hole or perforating truck. Their work was performed largely in a salt mud environment. Typical services consisted of a Gamma Ray Dual Laterolog or GR/DLL, a Microlaterolog or MLL, a Sonic and the Density Log or FDC. There were no special problems being experienced. The biggest challenge was maintaining good cable insulation in the salt mud but experienced operators had that under control. They had gone through their period of Sonic tool problems, discussed earlier but were now in good shape with modified tools. After spending some time with Bud and the engineers, we went back to the airport and headed to Havre, Montana.

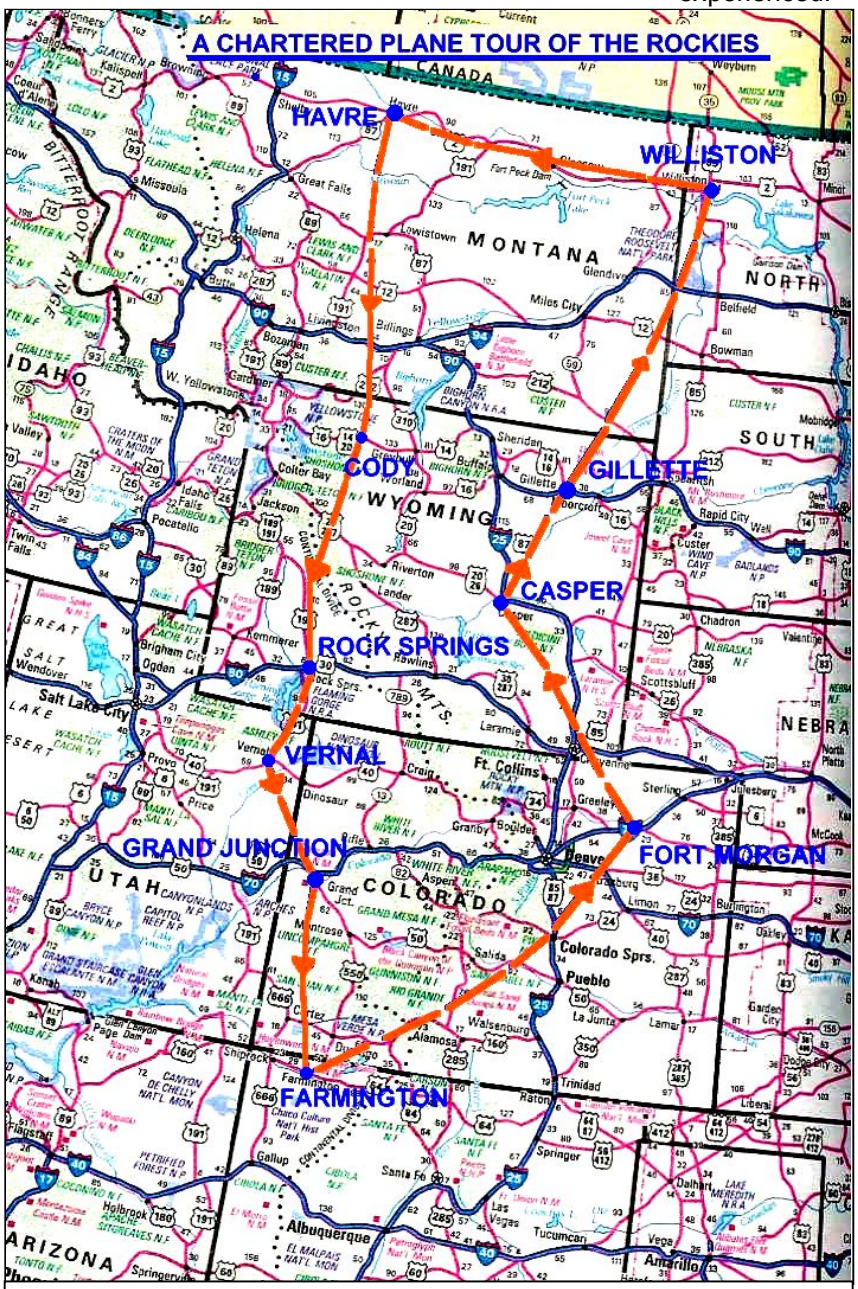


Figure 14-56 Map of the Rocky Mountain Division illustrating the tour's flight path with our Division Engineer replacement.

Havre lies about two hundred air miles to the west of Williston or 300 road miles. I suppose the flight and associated ground time occupied a couple of hours but we were in Havre soon after 12:00 and had lunch with the manager and the available engineering staff. Havre had two open-hole trucks offering primarily open-hole logs consisting of the I/ES or Induction electric Log and the GR/FDC. They made an occasional perforating job by adapting the cable to a mono-cable head for the perforating guns. Their wells were shallow, around a thousand feet. The Cutbank station, also under their management, serviced wells a little deeper, around three thousand feet, with similar open-hole services and could also adapt their unit to the necessary perforating services. However, they also ran an occasional Sonic Log and even a dipmeter from time to time. The Havre location, like Cutbank, when I was there, was real busy in the summer but slowed to one truck business during the winter. They had a difficult time maintaining an

acceptable cost ratio and learned the art of penny pinching well. After a discussion of the locations activity and any service problems, the manager took us back to the airport where we climbed aboard the Cessna bound for Cody, Wyoming and a night's rest. Little did we know what the experiences of the evening would be.

Cody lies about 200 air miles due south of Havre in northwestern Wyoming. We had about an hour's flight once again. It was near zero degrees Fahrenheit in Havre and getting dark as we took off in a southerly direction. About a half hour into the flight I noticed the pilot shining a flashlight out the windows on either side of the plane from time to time. We had climbed above some clouds and the sky was clear except for occasional clouds looming up from below. As I looked out, I could see nothing of apparent importance but only a beautiful winter night sky. After a few more minutes he repeated his flashlight operation. My curiosity got the best of me and I asked what the purpose was. He said he was checking for ice on the wings. He had the plane's deicers on but wanted to be sure all was well. As you know, much ice accumulation on the wings can bring a plane down. I hadn't even considered such a situation and began to watch myself as he repeated the operation every few minutes. He explained that this time of year, in the weather conditions we were flying in; icing can be a real threat to flying. I was thankful to have a concerned and attentive pilot who was obviously taking all necessary precautions.

Soon we began dropping down as we approached the Cody airport. He made a semi-circle to the east and made his approach to the runway from that direction. The flight had been smooth but as we dropped down the air became very turbulent from the wind coming off the mountains to the west. I had experienced similar situations on Frontier Airlines on many flights in the Rockies. However, as he came in on the final leg of the runway approach, the plane was being tossed like a cork on a stormy sea. It seemed as though the plane would stand on one wing and then the other. Had Larry or I been sensitive to air sickness, the plane would have been plastered from our innards by the time we touched down. I do believe that that particular approach to an airport was the roughest I have ever experienced or have any desire to.

As we got closer to the ground, I began to wonder what the possibility was of the plane's wing touching the ground first. We might then cartwheel up to the terminal rather than taxi. I wasn't about to speak to the pilot and take his attention away from his job. No sir, I wanted him to concentrate. I looked at Larry and noticed a concerned look on his face as well. I decided to grit my teeth and hope for the best. I felt we had an experienced Wyoming pilot who knew what he was doing. If he was okay with the situation, I was. I don't believe we were more than 20 feet off the ground when suddenly the plane leveled out horizontally with both wheels touching down at the same time. There wasn't even a hop, skip or a jump. The pilot turned around and said, "It got a little bumpy, didn't it", as if to certify my concern. I said, "I've never been happier to be back on old mother earth" and left it at that, as I relaxed and gave a big sigh of relief.

The location manager, Ted Campen I believe, picked us up and took us to a motel near the center of town. We checked in and then went to the Cody hotel and enjoyed a good steak. In those days, I could still eat a decent sized piece of meat along with all the trimmings and without a hiccup. My, how times have changed. The next morning we repeated our visit to the Cody hotel dining room for breakfast. They had good food and, unless it has changed, I would recommend it to anyone passing through. The manager joined us. Next we made our visit to the district. It seems as though both trucks were in, a good possibility in the winter, and we discussed the operation and looked things over. Cody had unusual logging conditions on many of their wells. The main reservoir objective was the Tensleep formation, which had extremely high resistivities, in the order of 200 to 3000 ohms. Even though the drilling mud was fresh, in the one-ohm range, a laterolog was required. It's the ratio of formation resistivity to mud resistivity, i.e. $R_T/R_{M,}$ which establishes the type of resistivity device required. The more common case of salt mud and low formation resistivities, as in Williston, was treated with the laterolog three or its replacement whereas Cody's situation required the Laterolog 7. I think I discussed the differences in these devices in chapter 7, should anyone be interested. Typical services, auxiliary to the laterolog run in Cody, were the Sonic and the FDC/GR. We took off sometime before lunch heading for Rock Springs and then Vernal for that night, Thursday, so we could complete our trip on Friday.

Rock Springs lies about 100+ air miles southwest of Cody. In less than an hour we

were landing there and had an uneventful but beautiful flight along the Wind River Mountains. We were met by Ed, the manager and ushered into Rock Springs. They had two open-hole logging units and a cased-hole unit. By this time exploration targets had begun changing in the Green river Basin. East of Rock Springs wells were going deeper with 12,000-foot objectives being quite common. They also had a demand for several different types of auxiliary services, which made the operation quite profitable. We had lunch with Ed and the available engineers while discussing various location activities and technical challenges. From there we went to the airport and then headed to Vernal, which was our only location in Utah.

Fred Newman, the location manager, met us at the Vernal Airport on the edge of town. We managed to take care of our visit before dinner, which involved Fred and several engineers. Things were going well in that location since the problem with the sonic tool had been solved. They had a wide variety of open-hole services in demand as well as Rock Springs and were one of the more profitable locations. Typically their services were of the fresh mud variety, i.e. DIL, Sonic and GR/FDC. They also ran a lot of dipmeter jobs, as did Rock Springs. Vernal served the Rangely oil field in western Colorado. It was an older field even in those days, which produced out of the Weber, an equivalent to the Tensleep formation in Cody. Chevron Oil Company was the unit operator.

Extreme permeability variations within the formation caused them to look for ways to measure that parameter in situ. They had given Schlumberger the exclusive rights to develop market and run the NML or Nuclear Magnetic Log, a device, which promised to provide that sought after measurement. Unfortunately, it never quite succeeded even though Schlumberger spent many dollars in its development and Chevron ran many logs at Rangely. It remained an experimental tool throughout a rather lengthy life.

Having completed our visit in Vernal, the next morning, we got up early and went straight to the airport. Our pilot headed to Grand Junction, only about a half hour's flight. Tom, the General Field Engineer who managed the location, picked us up, acquainted us with the personnel and relatively simple operation. Because of our schedule and the single unit stationed there, we didn't tarry. We were on our way by around 10:00 AM, arriving in Farmington, New Mexico before lunch. The flight took us over the Uncompahgre Plateau as well as the San Juan Mountains to the south, both being rugged and beautiful mountainous areas. Shortly thereafter we crossed over the Mesa Verde Park and dropped down into Farmington, our objective.

The airfield in Farmington is just north of the Schlumberger location and, in fact, overlooks it from the bluff on which it is located. Percy Percifield, the location manager, picked us up and we combined lunch with a discussion of the districts operation and service problems. Farmington was now operating two open-hole logging units and a perforating truck. The wells were generally in the 6000-foot range and presented no special logging problems. They typically ran two logs on a development well, namely the I/ES and the FDC/GR. After lunch we spent a little time looking over the location and its facilities before departing for the airport. We were in the air by around 3:00 PM en route to Fort Morgan, our last stop.

Fort Morgan lies to the northeast of Farmington some 380 air miles. It was a good two-hour flight, as I remember. Once again, we had the pleasure of flying over the Colorado Rockies, which are always beautiful and impressive. Ben Irvin, the location manager picked us up at the airport around 5:00 PM. We made a quick tour of the location facilities and went to dinner with Ben and a few available engineers. The location had three open-hole units but offered perforating on a limited scale by adapting one of them to cased-hole work, as needed. Joe Dilli, a good friend of mine from Farmington days, who served as a sales engineer there, also joined us. There challenge lay primarily in carving out a large share of the available market through good service, including log interpretation, because technical demands of the wells in the area were minimal in nature.

It was after dark when we departed from Fort Morgan, bound for Casper. Fortunately, the flight was only about an hour in length and we were on the ground at the Casper airport by 8:00 PM or so. It had been a tiring trip but well worth the effort. Larry felt he had gained a good understanding of the division and its technical status therein. He seemed ready to assume his duties, having already been briefed by the division manager, Bob Kudrle. On the other hand, I was ready to move on to my duties in that Cajun city of New Orleans.