An Oil Business for Jacobs Creek

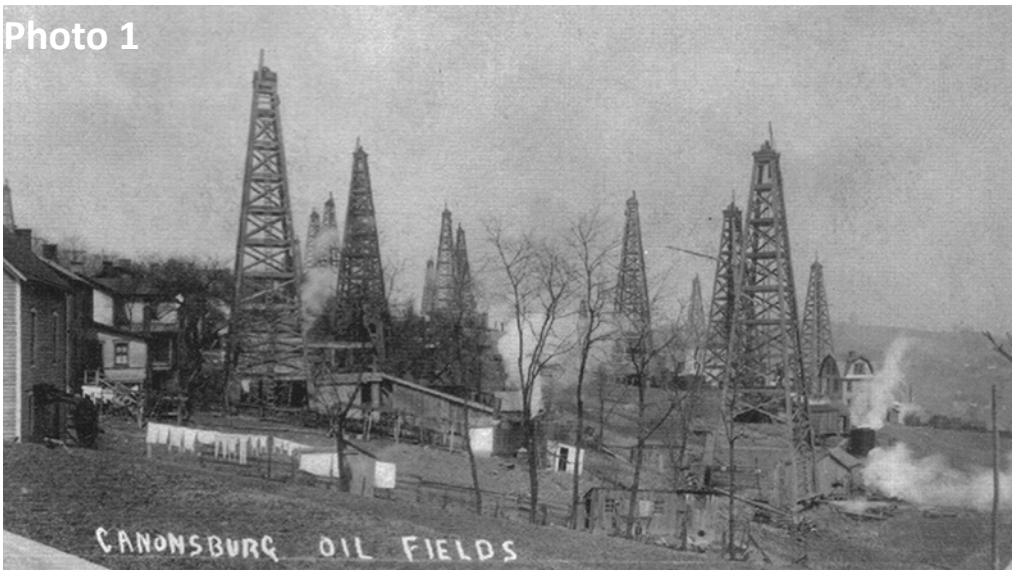
By George Paxon

On the layout we have been busy finishing the Jacobs Creek industrial area. The container terminal, construction covered in recent **OSR** article, was the previous structure built for there. We had room for only one more industry. A very long and skinny one would need to be conjured up for the available space.

Some time ago, we also wrote an article in **OSR** about the conversion of narrow-gauge cars to standard gauge traction to take advantage of models on hand from many years of narrow-gauge modelling. Well, a few tank cars were good candidates for a successful re-birthing, and they are now available for standard gauge service. Our narrow-gauge tanks included some of the often-seen Union Tank Line cars of the Van Dyke patent, commonly referred to as "GRAMPS" cars, that were used on the D&RGW to move crude oil from Chama, New Mexico to a small refinery at Alamosa, Colorado. In pondering these converted cars, my mind began wondering how we could best use them and how they could fit into the scheme of things on our new layout.

Everyone has their own approach to model railroading. For me, all the cars, the industries, the scenery, the era, the structures etc., need to make reasonable sense so there is a cohesiveness and believability. In short, it all needs to work together to support the theme of the layout. It may not have been; but, it could have been. That does not make me a nit-picking prototype modeller, which I'm certainly not. But I can't see fit to include a SD70 on a 1930's era layout. Having an RS-1, which is my favorite stink buggy by the way, is certainly more of a possibility though….

The Mountain Electric (ME Ry) is a fictitious line in southwestern Pennsylvania. An oil boom started in northwestern Pennsylvania with the historic discovery at the Drake well near Titusville in about 1860. Initially every man and his brother drilled speculative wells, the next almost on top the last, in that corner of northwest Pennsylvania. As land prices skyrocketed they began to move further afield in search of a place to drill for the gooey black-green liquid. By about 1890 the boom drifted south, and into southwest Pennsylvania. Wildcat oil derricks began to pop up everywhere there, too. If anyone is a fan of the Waynesburg and Washington Railroad (a three-foot gauge line between the namesake towns that ended up part of the mighty Pennsylvania Railroad), you will recall in Three Feet on the Panhandle, there were many oil wells. **Photo 1** shows such wells in a suburb of Pittsburgh.

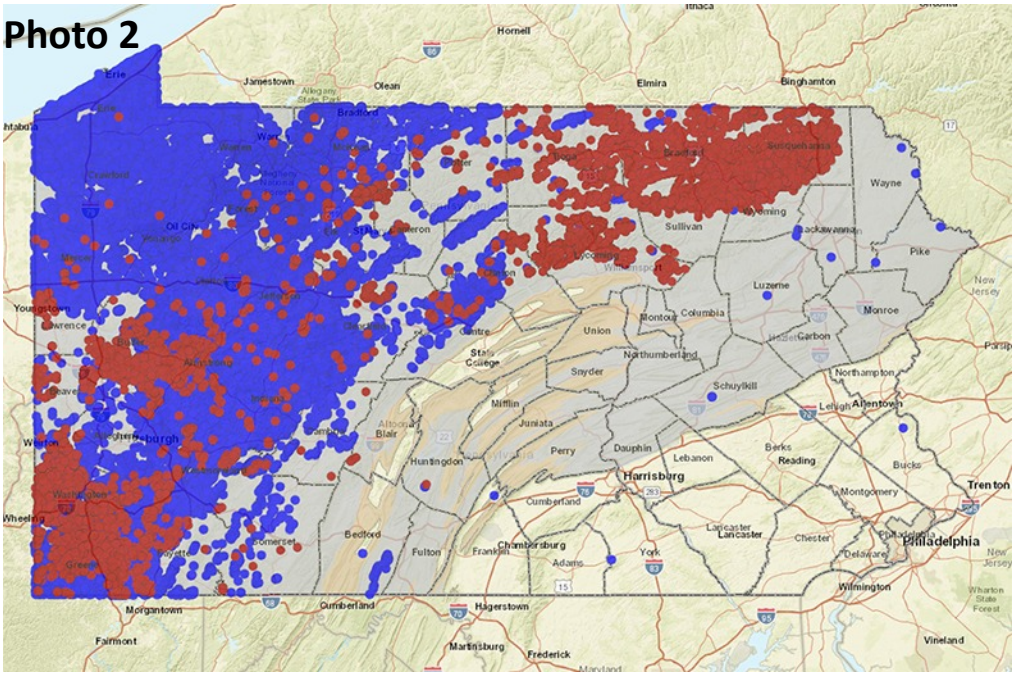


Pittsburgh became the nation's first oil refining center, and in short order, there were 58 oil refineries in the urban area there. At first crude oil was floated down from northwest Pennsylvania by river barge, then it came by a newly built railroad. But, the Pittsburgh refining industry was short lived thanks to the discriminatory freight rate policies of the Pennsy and John Rockefeller. Rockefeller decided to base his oil refining monopoly in Cincinnati, Ohio.

The Pennsy already had more business than it could handle in Pittsburgh to and from the coal, iron, steel, glass and chemical industries expanding there; and, with a monopoly on Pittsburgh rail service, there was no alternative transport available to the oil refineries. The railroad decided to grossly overprice the service to the Pittsburgh oil industry, maximize the profits therefrom, and give better rates to oil refineries in Cincinnati where they had serious rail competition. Basically, the high rate in Pittsburgh subsidized the more competitive rate in Cincinnati.

I don't think the oil boom lasted all that long in southwest Pennsylvania, but the industry certainly continues in a limited fashion to present time. The associated gas industry was certainly going strong when I lived in the area in the 1950s as we had gas wells everywhere. We often stumbled upon them when hunting deer and rabbits there. **Photo 2** is a map of Pennsylvania showing modern oil and gas wells working the shale deposits.

Photo 2

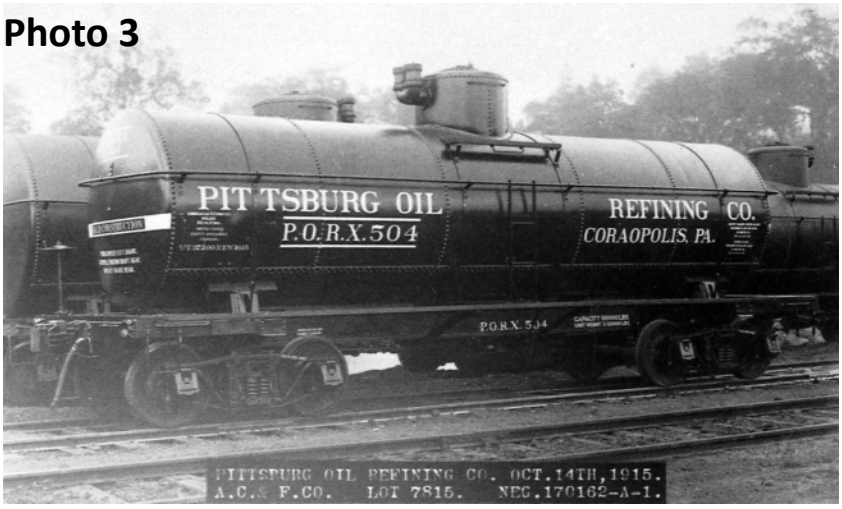


Some small oil refineries did survive in the Pittsburgh area. A search of the 1926 Railway Equipment Register shows tank cars belonged to Island Petroleum Co, A.D. Miller Sons, Waverly Oil Works Co., and the Conley Tank Car co, all located in Pittsburgh.

So, with a bit of modellers licence, we could have a small crude oil business on the ME Ry, set in the 1930s. This will allow us to take advantage of the existing car fleet. This sort or reasoning satisfies my personal need for believability. You might find it a bit far-fetched, but then it ain't your layout!

The plan was to build a crude oil loading facility which would dispatch cars to refineries. Gulf Oil was headquartered in Pittsburgh. I don't know if Gulf had a refinery in Pittsburgh, but on the ME Ry they do, and loads will be sent there. Mobile Oil will also have a refinery at Toledo, Ohio and that will be a destination for cuts of loaded oil tankers as well. The reason Gulf and Mobil were chosen as customers for the Mountain Electric crude oil was that we had previously painted and lettered brass standard gauge steam road tank cars for those firms. These cars could also be used for the crude oil traffic to supplement the meagre fleet of leased Union Tank Line cars the down and out ME Ry has available.

Photo 3



We are still chasing information on the other small refineries in the Pittsburgh area, and looking for information on the cars that served them. It could be that more crude oil trains could be added to service these small local refineries as well. Hopefully there were some colorful and interesting tank cars that we can model as well. So far we have found the cars shown in **Photos 3** and **4**.

Photo 4

Photo 5

Photo 6

Cars/Conversions

Previously we discussed re-trucking and other changes needed to convert narrow gauge cars to standard for traction use so we will not revisit that here. You can review back issues of **OSR**, for that info.

The D&RGW narrow gauge had both narrow frame and frameless tank cars. **Photo 5** shows a period standard gauge tank car with a very narrow frame. These date to about 1900. I suspect such cars were modified for use on the narrow gauge by widening the frames to allow the tank to sit lower thereby lowering the center of gravity which would make the cars more stable on the narrow track. When on the D&RGW, they were known as narrow frame cars, but the frames really were not all that narrow.

We did re-truck one of our nice PFM brass On3 narrow frame tank cars to see how it would accommodate our tight radii. Things were not good. To use these nice PFM brass narrow frame cars, we may need to remove and replace the frames with very narrow frames as per the car in **Photo 5**. It might be better use of time and funds to sell these existing cars to a narrow gauger in need of them, and make or buy new standard gauge cars with very narrow frames. **Photo 6** is a prototype D&RGW narrow frame tank.

As we have a few Grandt Line D&RGW tank car kits that had not been completed as frameless narrow-gauge cars, our plan is to build very narrow frames and put them under the tanks and complete the build as standard gauge cars. What we need is a frame similar to **Photo 5.** Our bolsters are 3D printed. We just now need to make up the center sills between the bolsters from Evergreen styrene channel and key steel. Just another project languishing in the never-ending project pipeline.

Many early tanks cars were originally on wooden flats such as that in **Photo 7**. I would assume some of these cars were modernized by moving the tanks to new steel underframes capable of withstanding the greater stresses and strains of later train operations. Early in the 20th century, railroads in general experienced substantial problems trying to mix old wood underframe cars with more modern, and heavier, steel underframe ones. The practice was a major source of derailments and wrecks for some years. Rail car manufacturers made

Photo 7

Photo 8

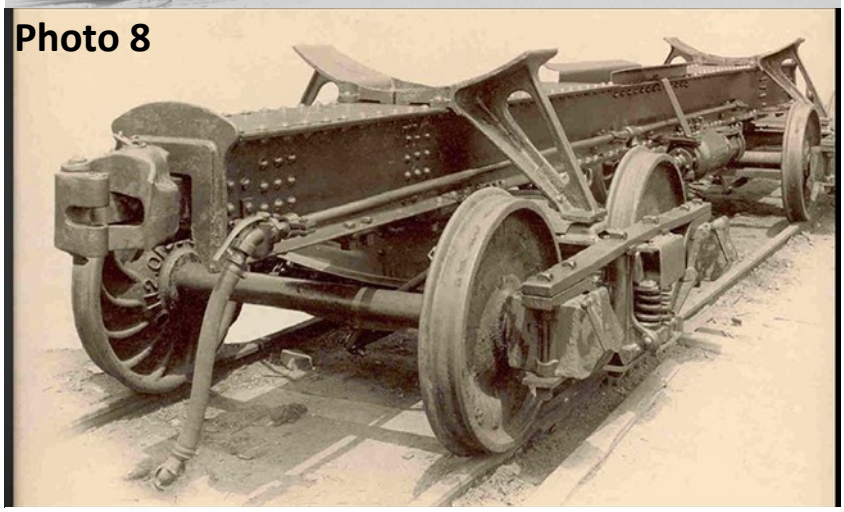


Photo 9

Photo 10

new steel underframes for many different car types to include gons, hoppers and box cars as well as tanks.

I suspect **Photo 8** shows such a new narrow underframe destined for an existing tank somewhere.

The D&RGW frameless cars of the Van Dyke patent began as standard gauge cars as well. Photo **9** is a narrow-gauge and **Photo 10** a standard gauge frameless Van Dyke car. These cars date to the turn of the century as they are covered in the 1906 Car Builders Dictionary. If you look at the car ends in both these photos, you will see the heavy bottom steel plate that extends outward toward the coupler and this is a signature of a Van Dyke patent car. The heavy curved bottom plate was used to support the tank and allow the normal center sill to be eliminated. Eventually the 6000-gallon cars became too small for standard gauge service and were probably the candidates for conversion to narrow gauge for the Farmington and Chama crude oil traffic. The curved heavy bottom plate is quite obvious in **Photo 9**. This conversion to narrow-gauge would have happened in the early 1930s. Most standard gauge Van Dyke cars appear to be 40 tonners. When used on the D&RGW, they may have been limited to 30 tons due to the trucks under them.

In converting our unbuilt Van Dyke cars to narrow frame standard gauge ones, we can trim off the protruding heavy bottom plate and it will look more like a conventional tank car with an underframe.

These prototype tank car photos are mostly from the St. Louis Transportation Museum and the Mid-Continent Railway Museum. The AC&F underframe photo is from the Barringer Collection.

An important part of any transition from my previous narrow-gauge world to the current standard gauge traction one is to make the cars fit into the theme of my new layout. Since the “GRAMPS” name was so widely known, and so closely associated with the D&RGW narrow gauge, something had to be

Photo 11

done to re-identify or rebadge these old narrow-gauge cars for use on the standard gauge eastern themed ME Ry. **Photo 11** shows a "GRAMPS" car on the D&RGW narrow-gauge. After an ample glass of my favorite red, we came up with the brilliant idea of naming our crude oil operation "Mountain Petroleum Services", MPS. The story is that MPS is a crude oil transport and loading business and a subsidiary of the Mountain Electric. Notice that the new MPS logo looks much like that of the Railway. The "GRAMPS" logo would just need to have the "GRA" obliterated by the judicious application of spilled crude oil. By doing this, repainting the existing cars could be avoided. The things you do when you are lazy! Several cars not yet painted could have the different, newer, MPS football shaped herald to help tie it all together and make the whole scheme appear more realistic and plausible.

If you want to add such a crude oil loading facility to your layout and don't have narrow gauge cars to convert – fear not. San Juan sold very nice ready to run standard gauge versions of the 40 ton Van Dyke cars. I recently bought two of the San Juan cars to insure a more adequate supply of cars for my crude oil service. They are nice cars and are truly ready-to-run. They just needed some weathering and a dusting of flat to kill the shine. I put the new MPS logo on them, too. See **Photo 12**. This car still needs an overspray of flat finish to complete it.

Photo 12

Crude Oil Loading Facility

The basic idea for our loading platform came rather loosely from the one at Chama on the D&RGW narrow gauge. I always liked it. If I had stayed with modelling narrow gauge, I probably would have added a model of the Chama facility to my old layout. We had already accumulated the necessary cars for it. The Chama facility was little more than a walkway elevated on stilts. It appeared to be made from pipe and, with all the joints, probably was a pipefitter's nightmare. See **Photo 13** which shows the Chama loading facility while still in use in 1963. This photo is by John West, from his collection, and is used with his permission. At the end of the platform was a little shed, the purpose of which is unknown. It does not look large enough to hold much smaller than an outhouse even. Cuts of cars were parked on both sides of the Chama platform and loaded with crude through flexible pipes. The Chama platform was double sided with room for 4 cars on each side. Ours would be built of mostly of wood, be single sided, and would service 3 cars at a time. **Figures 1** and **2** show our loading platform.

Photo 13

Figure 1

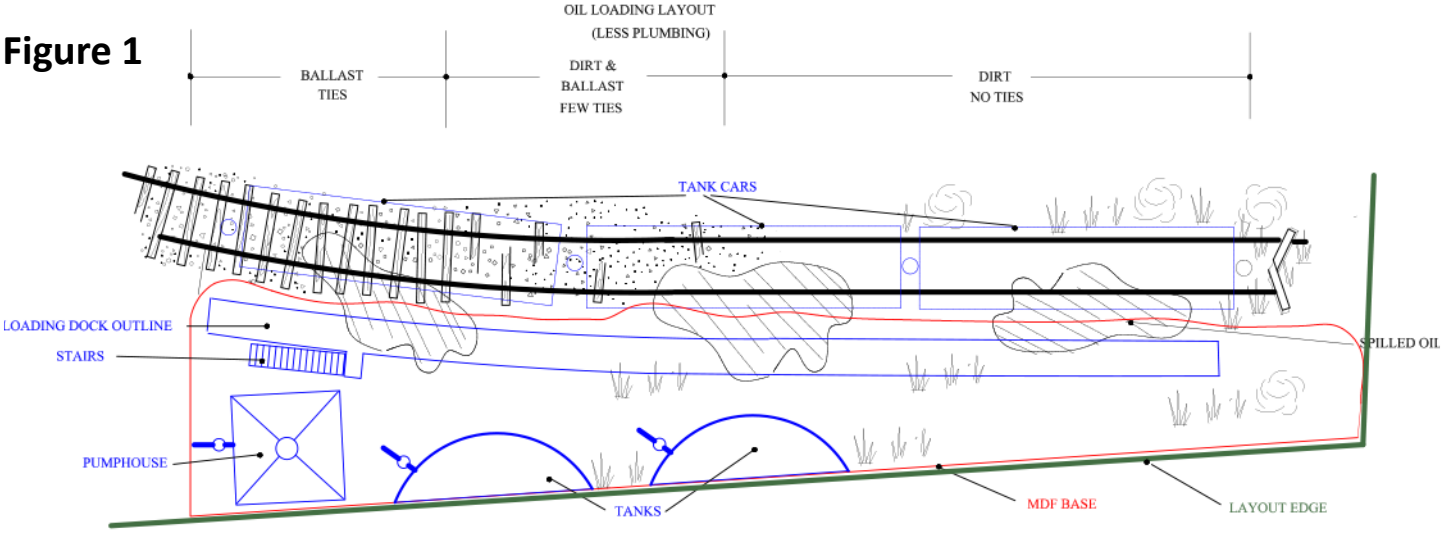
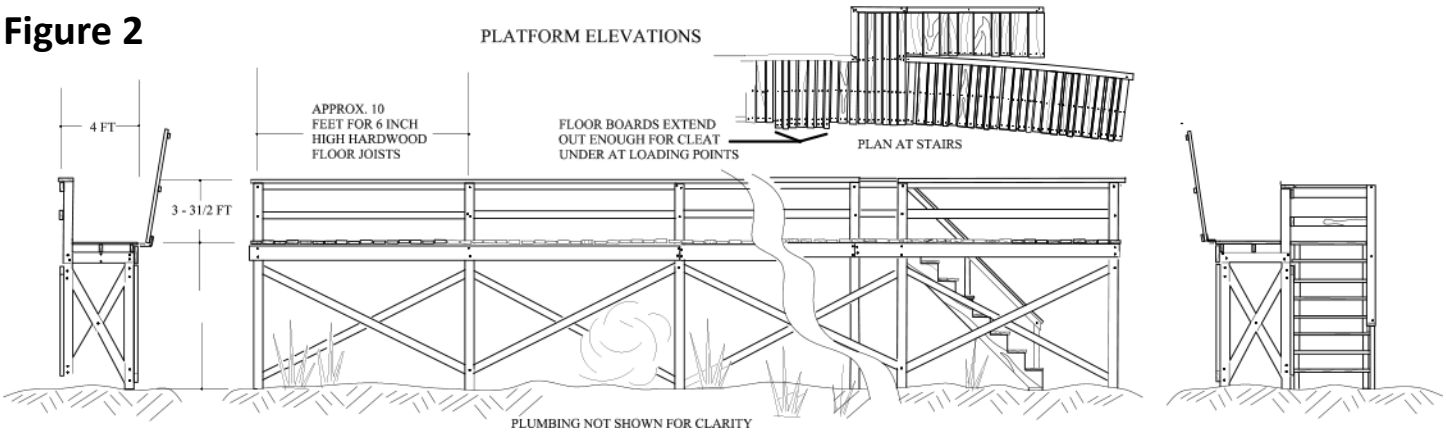


Figure 2



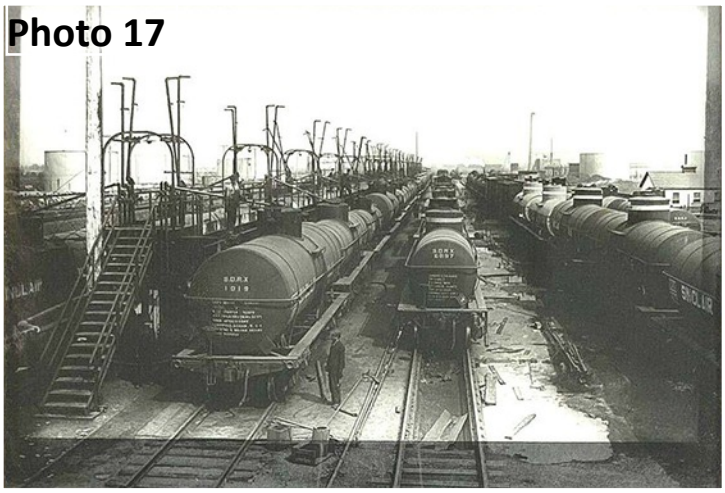
We spaced our wood platform bents at about 10 feet. The floor beams were only 6 inches high so this span is a bit much by today's cautious building standards, but probably acceptable for the 1920s and 30s for hardwood floor beams. And, if built today, it would be of metal anyhow.

Photo 14

Photo 15

Photo 16

Photo 17



Photos 14 through **17** show other different loading facilities along standard gauge lines somewhere. **Photo 14** is my favorite of these and from the Semas Collection. **Photo 15** shows a very crude but interesting loading facility. There appears to be a pipe from the truck tank via a small pump to the tank car on the rail siding. Not sure about the horse drawn tank. And note the spilled crude on the adjacent ground. Looks like a similar loading ramp is just at the right edge of this old photo. Texaco tank cars are being loaded in **Photo 16;** I believe. The vertical stanchions should be the loading plumbing. It was not likely an unloading facility as this was done from the bottom of the tanks. **Photo 17** is of a large-scale operation, and we are uncertain if crude or refined product is being loading here.

Note at Chama the hinged deck boards used to access the tank domes from the loading platform. These are a great detail and are provided on ours. In **Photo 14** you can see that just a loose board was used as an access

walkway. We provided wood handrails on the back side of our platform. At Chama and the other loading facilities when on the deck boards, you were on your own, as there were no handrails there.

Oil Storage Tanks

I thought a few tanks would help to set the scene, but space is such a valuable commodity. Chama, I understand, also had such tanks but they were located some distance from the loading platform and not seen in photos of the facility. I have visited Chama several times over the years and I certainly never saw them.

What we came up with was a pair of shallow partial tanks in the background. A bit of weathering and some lettering to carry on the "MPS" theme would serve the purpose. The area where the industry is located on the layout is about eye level, and when the tanks are viewed through the loading platform, the shallowness of the tanks is not a big visual issue and space is conserved.

A photo sequence, **Photos 18** to **20,** shows tank construction. A former was made of 1/8-inch thick MDF, styrene sheet was glued over the former, and Micro Mark rivets were installed on the tank once it had been primed. The tanks were painted aluminium, decaled, and weathered. One tank has the new logo and the other the old Mountain Petroleum Services logo to help tie it all together. The outlet pipe with a shut off valve was added to each tank with pipe leading into the ground and off to a pump house. Selley makes some very nice-looking large valves and these were used at the tank outlets. They are advertised as HO scale but are large valves and fine in O scale. A fancy thumb tack was installed on top of each tank as a vent. The vent would have been needed to keep the tank from collapsing when oil was pumped out of it.

When weathering the tanks, we tried some of the new rust decals by Weathering Solutions. The rust streaks turned out quite nice and I'll use more of them on other metal models.

We dusted our tank seams with brown chalk to make the rivets stand out also. Brown was worked along the tank bottom edge to simulate the dirt that would have splashed onto the tank bottom during rains. When done, the tanks were sprayed with a flat to kill the shine and seal the weathering and decals.

Plumbing to Cars

The theory of operations for our facility is that crude oil is piped and trucked from the well heads throughout the area to the tank farm at our loading facility. From these tanks the oil is pumped into the tank cars. Our pipes from tank to pump house and pump house to platform are mostly in the ground and not modelled.

There may not have been pumps at the Chama facility. The oil field was located in the higher mountains to the north of Chama and one source says oil flowed by gravity to the storage tanks. And, I have been informed the tanks were positioned 20 feet higher than the loading platform so oil would flow from the tanks to the loading platform by gravity as well. I am not sure how well a no pump system would have worked at Chama, as I would imagine that crude in the winter, at that high elevation, and freezing temperatures, would be about the consistency of cold peanut butter. If anyone has better knowledge of how the Chama facility worked, your input would be most helpful and much appreciated.

At the Chama loading facility, a pipe ran under the length of the elevated platform and branched to service each of 8 loading points. After the “tee” in the delivery pipe there was a valve to control the loading of each car individually. A swiveling pipe swung out from the loading platform above the valve and fed the loading opening on the dome of each tank car. I studied some rather poor photos of the Chama facility with initial hopes of modelling this loading plumbing. Old photos of the facility when it was in use were not much help. Most current photos of what remains of the facility indicate the oil delivery plumbing is about all removed. **Photo 21** is one color shot we found showing some of the loading plumbing. The loading platform was out of service, but most plumbing still intact. There were some triangular steel supports on which I assume the swiveling delivery

pipe rested when in the retracted position. At first I thought there may have been a flexible, hose-like extension at the end of the steel delivery pipe – the purpose of which I assumed was to help direct most of the sticky crude into the car. **See Photo 22**. Additional study of what photos I can find of the facility in operation now lead me to believe that the flexible bit of material might just be sand bags that were probably used as weights to keep the loading pipe in place on the tank car dome while oil was transferred to the car.

If you are interested in a crude loading facility, and are even more space challenged than we are, **Photo 15** is a basic and primitive loading operation that would allow you to have the industry in less space.

In the end, for our delivery plumbing, we had to settle for something that seemed to make sense. We used some approximately 3 scale inch valves obtained from Precision Scale Company, with one at each car loading point. The very nice Selly valves were too large for use here. The pipe swivel at Chama was probably some sort of patented mechanism. It was probably much like the swiveling joint in a steam line to a rear truck booster on a steam locomotive. At the loading facility in **Photo 14** the joints were just normal loose pipe joints it would appear. Leaks were not a big worry in the good ol' days with little environmental concern and cheap oil. Without decent photos, we had to do the best we could in modelling this feature and settled on the swivel joint. If it does not look quite right to you, have another glass of red, then look again. The plumbing for out loading facility is shown in **Figure 3.**

Making and installing the piping was probably the largest task in constructing the oil loading platform.

Figure 3

Figure 3
PLUMBING LAYOUT

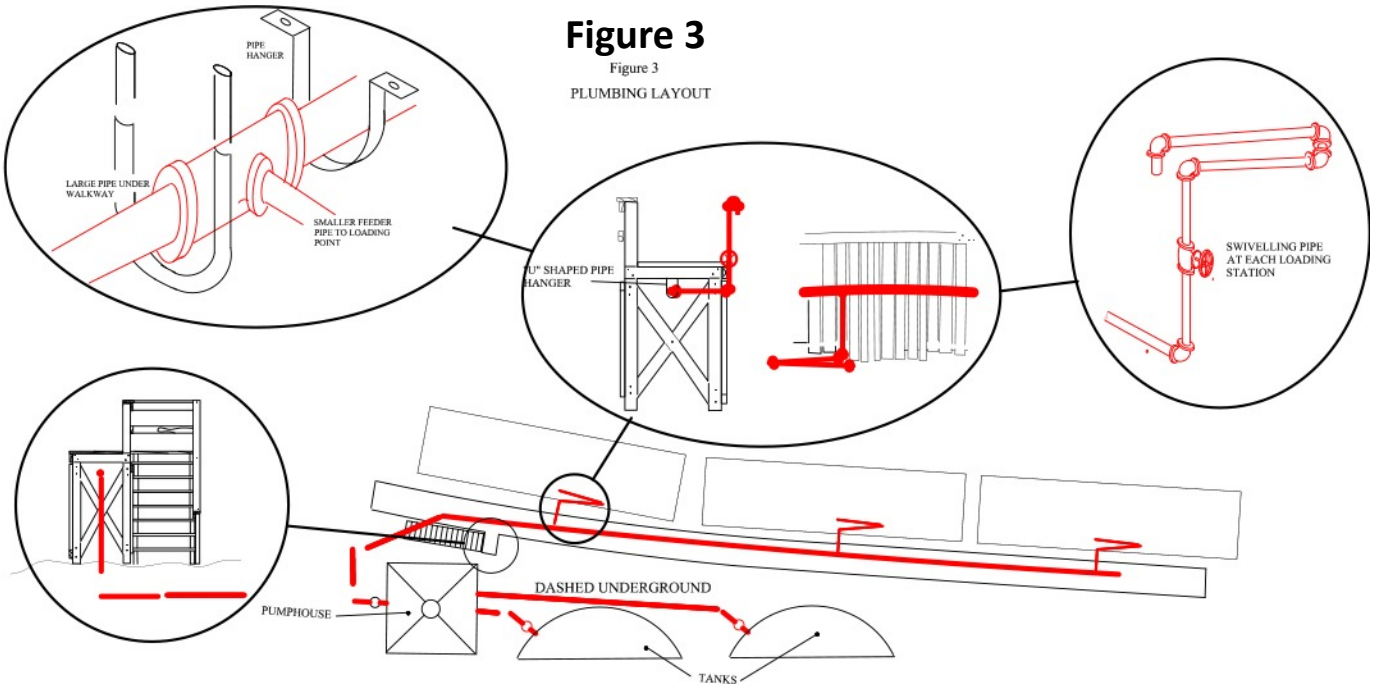
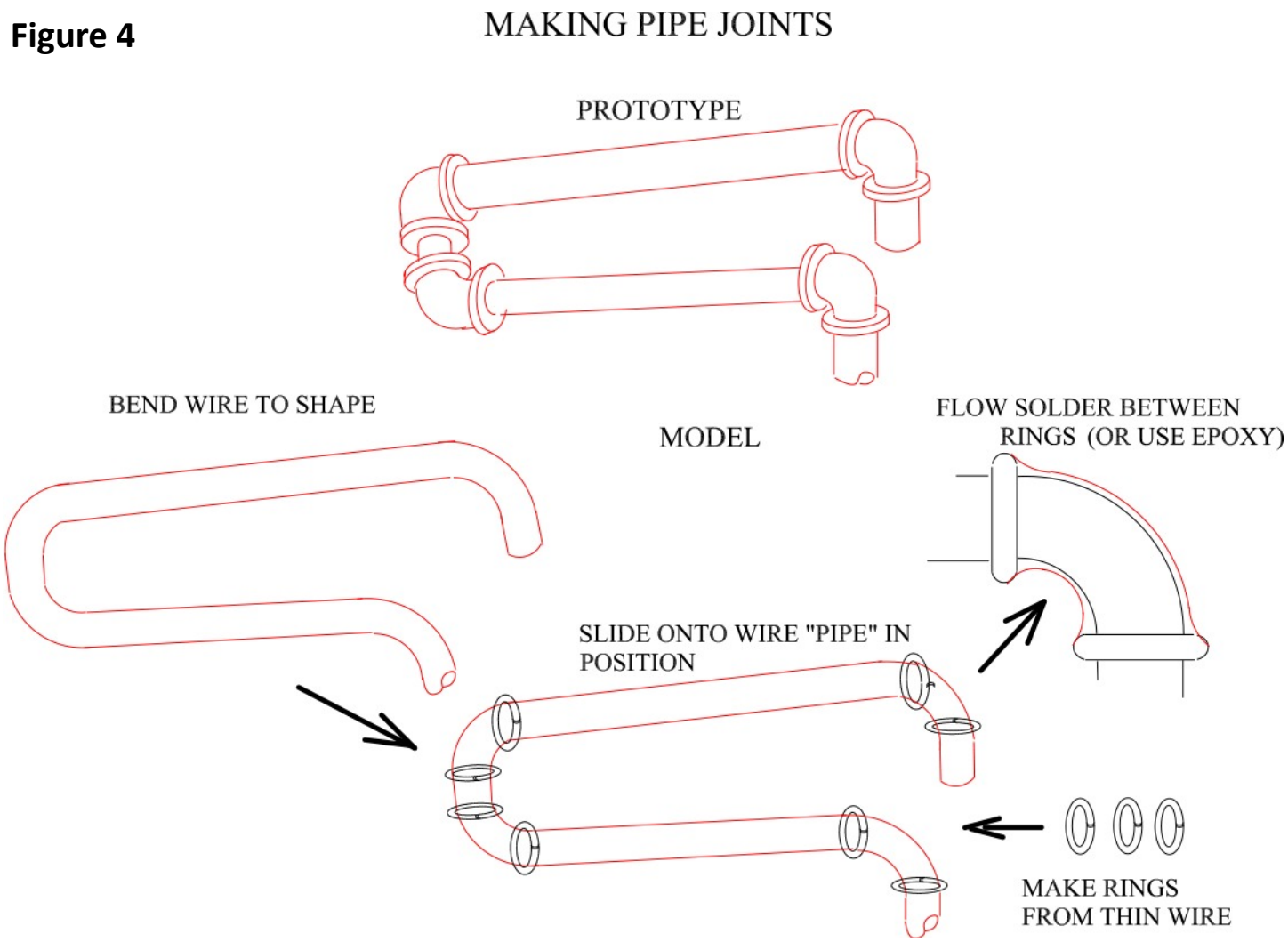


Figure 4



First the larger main distribution pipe was made from styrene. I needed to get a bit of curve in it, so, when the domestic manager was not looking, I boiled the tea kettle and stuck one end of the styrene tube in there for a while to get it hot and soft, then did the bend which remained once the tube cooled. Such pipes that feed several outlets would step down in size along the run to conserve material. I used a smaller diameter styrene just after the position for the second location.

Then the feeder pipes to each loading point were made by bending 2.4 mm, 3/32 in, dia bronze brazing rod to the required shape. See **Figure 4**. Rings were made of small diameter brass wire and slipped onto the "pipes" to represent the larger diameter at the pipe joints. Since we are modelling the 1930s, such piping would be made of threaded pipes with elbows, couplings and tees rather than welded as would be normal in later days. A dab of solder made a fillet and the pipe elbows were thus formed. To make the rings we used some jewelers' pliers intended for forming rings. These are sold in the model train world for adjusting the shape of Kadee coupler pins, but their intended use is forming rings. The ones we have can bend three different diameter rings. We made the big rings for the delivery pipe and small ones for the feeder pipes. And, of course solder could not be used on the styrene tube of the main delivery pipe, so some epoxy cement was used to form a fillet there instead. You could use epoxy for all the fillets if soldering is not your thing. Where the feeder pipes branched from the main delivery pipe, we just drilled a hole in the side of the styrene tube and pushed the feeder pipe into the hole using some epoxy to fix the joint when assembling the platform.

The three PSC valves were installed, one on each of the feeder pipes as required. This was a project in its own right. Not installing the valves, but finding the bloody things. The wife has such a long "to do" list that there is usually a substantial delay between the start of a train project and the finish. I try to do all the pre-planning for each modelling project in an organized sort of way. I sketch plans, usually, and work out a parts

list. Whatever is needed gets ordered from the northern 50 which takes a month or more to arrive down here. By then the old girl has me busy on some other project, and the parts, when they arrive, get stashed somewhere. In this case, after considerable search, we found the valves in a box holding all the parts for a street sprinkler that is also awaiting construction. Of course, I blame the old girl for this, but my parts filing system could probably stand a bit of tweaking to make it more effective. Would not tell her that though.

To assemble the piping for each loading location, holes were first drilled through each valve. The same diameter holes were then drilled in the ends of the pipe above the valve and in the pipe below the valve. An appropriate length of wire was cut and one end soldered into the hole in the bottom pipe. Next the valve was slipped over the wire and soldered in place. And finally, the top pipe was placed on the wire and it was soldered in place. This resulted in a reasonably strong delivery pipe assembly for each loading location.

There was one bend at the beginning of the main distribution pipe where the pipe, coming up out of the ground, turns parallel to the platform. This would be difficult to do in the styrene tube, so we bent some steel rod of the same diameter as the styrene pipe we had on hand. The end was filed down to fit inside the styrene tube. Some epoxy covered the rough joint and the wire rings were added to make a pipe elbow there.

The delivery pipe was attached under the platform. Some straps to hang the main delivery pipe under the walkway could be made from some thin brass strip. You can also just use wire for the straps as we did. Shape them, put a dab of epoxy on the ends, and shove them into holes drilled for them. The idea was to take a photo of just the platform at this point so you could see the delivery pipe detail better. But, in handling the platform while trying to install the delivery pipe under it, I managed to break off the diagonal bracing about 10 times. And when installing the delivery pipe, the platform developed a twist as the piping was probably more substantial than the skeleton of the platform. We finally decided it best to get the platform glued down to the base to reduce further damage and to get rid of the twist. The locations where the posts met the base were marked and cleaned, epoxy mixed and globs placed where each post was to sit, the platform located in its place, and some weights added to undo the twist while the epoxy set.

You can see that our plumbing is painted black. I was thinking that painting it aluminium would provide a better contrast with the drab timber loading platform. But, the black crude would be everywhere at such a facility and the pipes exiting the tanks and the pump house were already black. So black seemed to be the correct color here, too. I did paint the valve handles with a bit of dark red though.

When looking at photos of my finished oil loading platform, I think we should have used thinner material for the main delivery pipe under the structure. Unfortunately, I used what was on hand and it is a bit large.

With the piping in place, we could now add the diagonal bracing at the front of the platform. The platform decking was then added next. I have a NWSL *Duplicutor* and used it to cut the many deck boards to a consistent length. Note that decking extends outward about 9 inches or so at the loading points. This will allow us to place a cleat under the overhang to provide an anchor point for the walk board hinges. The decking also needed to extend to the rear for the landing at the top of the stairs. Some long boards were placed to lead onto the landing. The stairs were then built and required more of the 6X6 in framing. For our stairway we employed some of the ready-to-use stair stringers by MicroMark. They save a lot of time and are nicely done.

The walk boards to the tank car tops were next in line. They were made from wood strips with cleats under them to keep them together. The stripwood was stained before cutting it up for the walk boards. Some thin brass was bent into an angle to serve as the hinges for the walk boards. The hinges were painted black and epoxied to the walk board and to the cleat under the extensions of the main walkway.

I toyed with the idea of installing steel railing at the front of the platform. The one at Chama had railings at the back and the front. But as you can see in Photo **14** and **16**, some platforms did not have railings on either side. Given that we knocked off the hinged deckboard several times while trying to get the swiveling plumbing

fixed in place, we decided to not try and add the front railing. We had bought cast white metal stanchions for the railing, but will hold them over for a car ferry project in the hopper of many future projects.

Other details we thought were appropriate were the "no smoking" signs. The stairway with a handrail at one end of the Chama facility allowed workers to reach the elevated platform from the ground**.** I modelled the stairway in wood instead of steel as at Chama. And we moved it behind the platform to reduce overall length. From some photos of the Chama facility, it appears the ground under the platform was an available space to dump things that needed to be dumped. We modelled some rubbish under our platform, too. Crushed and empty barrels, bits of paper, some timber cut-offs, and old tires were scattered around. Some weeds and mostly dead bushes were planted where the crude had not been spilled as well.

I can't imagine that loading thick, sticky crude oil into tank cars was a particularly neat and tidy task. Many of the photos of tank cars in use for the Chama to Alamosa service show sign of serious spillage. In some cases, the "GRA" letters under the dome is close to obliterated by the spillage. Such photos are where the rebadging idea for my original Gramps cars came from. No original thought here on our part. There would be spillage on the ground around the loading area for certain. So, we modelled this with thinned black paint between the track and loading platform, between the rails, and under the platform. In these modern sterile times, the loading area would be a concrete basin with drains to divert any spillage to holding area. Such was not the case in the "good ol' days" and oil was just allowed to run onto the ground and pollute it when spilled.

Pump House

Our old narrow-gauge layout had a modern coal mine. That's modern for the 1930s or so. This mine had a compliment of support buildings to include warehouse, maintenance shop, etc. One support building was a little pump house used to remove excess water from the mine. We decided to recycle this little pump house for use at our MPS crude loading facility. Well, that required a major search to find the bloody pump house first. We still have some boxes of train things that have yet to be unpacked following a move of house. After a lengthy search, I ran across the pump house – in a wrongly labeled box of course. But, finding the thing was just the beginning of my problems. When built for the last layout, the back could not be seen so was not detailed. Now we are left to work out how to arrange it on what really is an island. We will need to detail the back of it. Or, need to hide the back somehow. The idea of using the old pump house in the first place was to reduce work, but that may not happen.

Since we had the two partial oil tanks along the same back layout edge as the dodgy pump house, we cut of 1/8-inch thick MDF to form the fascia board on the layout edge, but had the fascia extend upward to cover the back of the tanks and the back of the pump house. Problem solved! **Photos 23** and **24** show our oil loading platform from the track side and the isle side respectively. And **Photo 25** is as it appears when viewed through the trees and from the operating area in front of Jacobs Creek Yard. A white card was behind the fascia to block all the annoying background clutter in this photo.

Photo 23

The Crude Loading Facility and Layout Operations

With the crude oil loading facility in service on the layout, there will be additional traffic for the ME Ry as cuts of 3 cars can be switched between the holding/classification track in Jacobs Creek Yard to the oil siding for loading, Then, longer cuts could be assembled and dispatched to the refineries in


Photo 24

Pittsburgh and Toledo. Cuts of loaded tank cars can be dispatched from Jacobs Creek (1) west to Belle Vernon where they will be interchanged with PRR for delivery to the Pittsburgh refinery, and (2) east to Somerset where they will be interchanged with the B&O for delivery to the Toledo refinery. Empties will return to Jacobs Creek by reverse routing. We will probably load every second or third operating session for a refinery which could provide a loaded or empty tank train movement for most operating sessions. If this proves to be too much of a good thing, we can reduce the shipping frequency. The frequency also could be varied with the number of operators available for a session.

Additional switching will be required to include either the Gulf or Mobil car in the cut to be loaded depending on which customer was to receive the shipment of crude. It would be a serious breach of ethics to send a Gulf car to the Mobil refinery, etc. If we can get more info on the other small refineries in the Pittsburgh area, and if the associated cars are nice enough to model, we might have even more oil traffic. We also need to take the cuts of loaded cars to the scale for weighing before they are dispatched from Jacobs Creek. This approach should help to keep the little three track switching yard at Jacobs Creek quite busy and make sure the local crew does not have time for a nap during an operating session.

One item not yet resolved is working the standard gauge tank cars into our waybill system. Block waybills would be appropriate for crude oil shipments as the car are all coming from one shipper and all going to the same destination. We want to reduce the wad of paper train crews otherwise need to carry around to a single waybill for such block shipments. The problem is working out an approach to deal with adding the single Mobil and Gulf tanks to the block waybill when they are to be part of the shipment.

We hope to have our crude oil trains running shortly on the Mountain Electric. For one thing, we need to get the overhead wire over the loading siding! And, with the crude oil loading platform finished and in place, all the Jacobs Creek industries are now completed. A similar crude oil business could fill a space on your layout and provide some increased traffic for your layout.

Photo 25