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UNCLASSIFIED NOTEBOOK NO. A-37-84 I

(Excerpts)

Assigned to: H. Blauer

Department : Chem. Sep.

Location : Bldg. 786-D

Date Issued: July.

This notebook is assigned to personnel performing unclassified research and development work. Because of patent requirements, it must be returned to Laboratory Records, Building 4500, when completed or upon termination of assignee.

UCN-1385
(3 2-60)

2/25/49 ① Put W12 on overflow at 10 p.m. stays that way
4-12 until B6 evaporation begins.
② Prepared an Hcl-ether cannier.
③ Made house-keeping inspection and took care of all items
④ Took hourly cuts on Pressley's 3rd level column.
⑤ Run Status:
A1 - Heels, dissolved and sampled. Hold
A9 - A9 rinse and 2 B6 rinses. Hold.
A11 - 8WW, 8WCW, 8WM≡ heels etc. Hold.
A6 - M.T.
A5 - M.T
B12 - Product electrolizing at 15 amps until 12:30 a.m.
⑥ Pulled a B12 bucket sample (12P) and submitted to lab.
⑦ Continued Ru^{106} Tank Farm operations.
⑧ Analysis: 12P - 2746 c's S.T.
⑨ Analysis: 8WCW - 199 c's S.T.

2-26-49 ① Continued cutting Pressley's column on third level. It's
12-8 pretty hot.
Bunford ② Continued Ru^{106} operations: - settling til 9:50 AM
③ Received "cold" waste from 205 into W5.
④ Run Status
A cell tanks as above
B cell - 1st ℄ sample taken
⑤ There is something hot somewhere. At 7:45 AM everyone suddenly got hot hands and feet. And we could read Ferguson with a cutie fie

2/26/49
8-4
Schwich + Bauer

① At 8 A.M. the 1st 6P sample was removed from the blister with a very small volume and reading slightly over 10 R/hr. A 2nd sample was started circulating and shortly (2 minutes) after the air counters went off scale. The building was evacuated and approximately 10 minutes later 6P sample circulation was stopped and left on sampler. The building was empty until 9 A.M. at which time the count was down to normal. The 6P sample was removed and another sample circulated for 5 minutes. The air count rose slightly during this period. Both samples were submitted to the lab and both read better than 75 R/hr.

② Just before 12-8 shift change Ferguson's clothes were found to be contaminated. His gloves were reading 10R, pants 2R and a high count on his ear & hair. After much scrubbing, he was okayed by H.P. at 10:45 A.M. A check of the spot where he had been showed that the clamp to release sampler tube on B12 probe was reading 8R. Since there was a slight spill when 12P sample was taken this was the logical place for such a high contamination. The desk at PB4A was hot plus the run book and calibration charts. These have all been cleaned. These are the only hot spots that could be located. The floor has some contamination as shoes count are high.

③ 6P sample gave 2247 c/s S.T.

④ Run Status:- A all tanks - same as 4-12 (2-25-49)
B20R - Product.

2/26/49 ① Still filtering & pumping HNO_3
B4-12 ② Removed lead from B-12. Sent it to
Sacher A9 on up & A9 Rinse & B6 wastes of Run #30
Blaney ③ 3 WPB 1-77 C's S.T.
+ still finding + cleaning of hot spots

2/27/49 ① Had instrument man check bubblers on Ruthenium
12-8 manometers. The air line is partially plugged and the
Binford whole set up needs overhauled however you can
to read the manometers if you shut the bubblers off
Blaney two of them while you're using the third.
② Repaired D3 → W12 jet valve
③ Re settling till 10:40 AM supernate
④ Scrubbed up the hot spots on third level and had
H.P. make rough smears.
⑤ Oiled and adjusted lift truck
⑥ Still filtering 2nd pumping HNO_3 at shift change.

2/27/49 ① Ran W6 → S.B. jet 2 hours.
Blaney ② Building evacuation from 10:30 A.M to 10:45 A.M.
Ewing after taking a 3 W.F.N sample.
③ Product evaporating at shift change.

2-27-49 ① Ran the W6 → S.B. jet one hour and
4-12 sampled. Analysis W6 manhole, 20,820 c/m/ml?
Russell Ran the W6 → S.B. jet another two hours,
making a total of three hours this shift.
② Placed W-12 on overflow.
③ Continued Ru^{106} operations. Water wash
is settling.

(over)

④ Run status:

The product was evaporated to dryness and placed in carrier. The sky-shine instrument failed to operate. A 11¼ R. reading was obtained on two probes and a C.P. The Product appeared cleaner than usual and was slightly red in color. Instrument men were called in from Oak Ridge to repair instrument.

2-28-49 ⑤ Sampled W-12. Analysis 49,700 c/m/ml.

12-8 ① Repaired sky shine instrument and took

Russell sky shine which indicated 1368 c's.

& Bailey Second sky shine is scheduled for 9.7m 2-28-49.

2/28/49

8-4 ① Shipped Rala product, run 30A, to site Y at

Sachs ~10 a.m. 1345 c's.

② Sampled Hcl-ether waste at B17, then sucked it back to B24. Analysis: 645 c's.

③ Shut off the steam engine.

④ Stored sky-shine plate oven hot labs.

⑤ Put the glassware rinse carrier in Cell B.

⑥ Received waste shipment from Chicago. Dumped five Pots and three drums into W5. Disposed of two five gallon drums of metal waste into W4. A full drum which is to go on the heroine still was brought back to the [redacted] Bldg. All pots and drums unloaded at 706D and truck was sent to 105 Bldg.

⑥ Sampled 35% NaOH. 36.6%

3/19/48 12-8 Bamford

① On the first half of the coating removal. The acid in the head tank had a S.G. of 1.40 or 66% HNO_3 rather than 60% as called for. Therefore we added $136 \times .6/.65 = 126^{\#}$ rather than 136. No additional water was added. Check H.B. to see if this suits him

② Emptied B6. It had about 3" in it and the water header was on. Checked by leaving header on all shift but its OK

③ All pots and drums are OK

④ ~~Hot test~~ Ruthenium 106 Settling til 7:43 AM

⑤ Shut off headers on all PBs.

⑥ Valves are set to W4. 205 just called and wants them set to W5.

⑦ Received material from 205 into W4.

3/19/48 4-12 Schaich

① Loaded 3 carriers of slugs okay but then came the 4th load. Six slugs dropped before we knew the chute was plugged and things got a little warm. With the help of 105 Bldg, a gadget maintenance made up, and a lead barricade we unblocked the chute. We finished unloading carrier and then tried to close it but it jammed. From the radiation we found there was a slug jammed in the basket. We took lid off applied our gadget and something fell in the chute but didn't go into 41. After lifting carrier, we discovered the basket with the slug still in it sitting in the chute. 105 came from and again and banned us a man who knock slug out of

3-1 Bu

3-2 8- Pau

basket into A1. Everything was fine except the basket was sent to hell. However there were 12 holes not that and we only needed 12 so we continued with question "slug loading". The last load went fine except for 1 slug which plugged in the chute. Since we were now experts on this subject, we removed it quickly and finished loading slugs at 11 PM.

(2) The Phoenix carriers and charging machine have not been cleaned.

(3) Put W12 on overflow. 12-8 run big jet W6-SB for 2 hours - H.B. Also start Ru 106 operations.

(4) Run Status - 1st Coating Removal A1

3/20/49 12-8 Bunford

(1) Cleaned up Phoenix carriers. - They have been smeared.

(2) Cleaned up slug charging machine inside and out so that the basket may be fixed.

(3) Ran W6 → SB large jet two hours

(4) Resumed Ru 106. Letting set 8:45 AM

(5) Cleaned up third level.

(6) First Coating removal 15 mg/ml (compared with 10 mg/ml on run 29)

(7) Run Status second coating removal coming up to temp.

(8) W12 is on overflow.

3-20-49 8-4 Russell

(1) Received waste from 205 into W-3, & W5.

(2) 205 borrowed their slug carrier.

(3) Placed W12 on automatic to W-5.

(4) Analysis first Coating removal: A1, 14.99 mg/ml; U, 1.17 mg/ml.

⑤ Analysis second coating removal:
Al, 0.775 mg/ml
U, 0.09 mg/ml.
⑥ Continued tank farm Ru^{106} operations. See T.F. Log.
⑦ Run Status: First dissolving in progress,
⑧ The basket used in 205 carrier is in decont. barrel. Both smears and readings were too high.

3/20/49
4-12 ① Run Status:
Sachs A1 - Batch B dissolving
A9 - Batch A digesting until 11:50 p.m.
② Start up Ru^{106} T.F. operations.
③ 205's slug basket is down to tolerance level.
④ Make up another batch of 4% NaOH.
⑤ Gave A4-205 off-gas system a good draining prior to starting 2nd dissolving.
⑥ Air counts went up when we pulled IMA.

① IMA analysis showed 3113 c/s S.T. & 38.2 slugs.
3/21/49 ② See Tank Farm Log & Run Sheet for status of Ru^{106}.
③ Relay Run Status
King A1 - 2nd Batch dissolving Sp. Gr. 1.55
A9 - Settling 4:1 @ 8:00 P.M.

3/21/49
8-4 ① Ran the big U6-S.B. jet for one hour.
Sachs ② Cleaned up entire tank Farm area
③ There is evidence that the high air counts are coming from the A16 Fan.
④ Cleaned up hot spots on 3rd level.

⑤ Run Status:
A1 – M.T.
A6 – 6WMA
A5 – M.T.
A8 – M.T.
A9 – Batch B extraction – digesting
A11 – M.T.

⑥ Analysis: 8WMA, 2042 C's S.T.

⑦ Replaced A1-A9A steam valve to jet.

3/21/49 ① 12-8 Be sure to note change in runbook regarding
4-12 A9 → A8 decant of batch B. Do not turn on sparger
Binford in A8 until after decant is completed. Use 6" vacuum
on A8 during decant.

② 6WMA 95 C/ST.

③ The A16 by pass is open.

④ Continued Ru^{106} on TF – heating up

⑤ Run status

A1 – Heel dissolving
A9 – Batch B settling cold til 12:30 AM
A6 – MT
A5 – MT
A8 – MT
A11 – MT

⑥ Shut off High Pressure header on PB 1 except during neutralization.

⑦ Watched dissolving in C building, reading at 15 past the hour.

⑧ Scrubbed up hot spot SE of cubicles.

3/22/49 ① Attended F I dissolving in "C" Bldg.
12-8 ② Melted two cans of sulfur for P^{32} in cell E.
Schaich ③ Loaned truck & two slug carriers to 205 Bldg.
④ 8WMB Analysis - 747 cs S.T.
⑤ Continued Ru^{106} operation. Water wash agitating 7 to
⑥ Run Status: A1 - Diluted Heel ready to be sampled.
A9 - 3rd Water wash settling till 8:50 AM.
A8 - water washes (1st + 2nd)
A11 - 8WMB
A5 + A6 - MT
⑦ Patrol said the burial ground gate was unlocked again.

3/22/49
8-4 ① Moved skyshine source to 3rd level. Instrument
Sachs checked skyshine instrument.
② Prepared one product carrier. Fitted same with cone, plug, and adapter.
③ Loaded Chicago Pots and drums and sent them to Pile building for further loading.
④ Continued Ru^{106} Tank Farm operations.
⑤ Received waste and washes from hot pilot plant. See tank farm log for valve position at shift change.
⑥ 205 Bldg. returned over slug carriers. Stored same over hot labs.
⑦ Walker to Rinehaw for 3 hours on 3rd level Ru^{106}
⑧ Run Status.
A9 - Start second ~~[illegible]~~ metathasis.
A8 - 1st half of 8WC
A1 ~~All~~ Heels diluted and sampled - Hold

A11 - Heel of 8WMB plus 5WW - Hold.

A5 - M.T.

A6 - ~~Neutralized 6WMB ready to go to W4~~ M.T.

3/22/49 ① Completed vaporation in C building.
4-12 ② Continued Ru^{106} w.w. settling til 1:30 AM
Bunford ③ Cleaned up hot spots around J.I blister on 1st level.
④ Made up HCl-ether carrier
⑤ Replaced cone in product carrier with new one
⑥ Delivered creeny sugarman to 105
⑦ Checked phosphorous at cell V. - Still going through the column.
⑧ Run status: -
A9 - 2nd w.w. settling til 2:05 AM.
A1 - heels diluted and sampled
A-8 - 8WC sampled
A-11 - heel of 8WMB plus 8WW
A-5 MT
A-6 MT
⑨ 8WC - 388 c/ST.
⑩ Received waste from 205 into W-4.

3/23/49 ① Ran large jet W6-5B for 1 hour.
12-8 ② 105 Bldg purged canal.
Schaich ③ Brought in two carboys of slurry for Rimshaw.
④ Sent all wastes to A9 and sent A1 heel then A11 to A9 in order to start a waste extraction. This was supposed to give us 100 gal in A9 but due to high dilution got 115 gal (tank capacity). This solution has approximately .32M in H_2SO_4. See C.J.W. for further instructions.
⑤ 8WCW - 396 c/s S.T. & A9 Rinse - 20.4 c/s S.T.

⑥ Received waste from 205 into W5.
⑦ Attended P32 going thru column at Cell E.
⑧ Continued Ru^{106} operation settling till 8 45 AM.
⑨ A C.P. reading by monitor inside cell B gave 110 mr/hr.
⑩ Run Status: A1, A5, A6, A8, A11 – MT
A9 – Heel & Waste Recovery.
B12 – Electrolysis till 1.05 PM.
⑪ W12 on overflow until B6 evaporation.

3/23/49
8-4. Sachs
① Sent two Phoenix Canniers on their merry way.
② Removed drum of methanol From E. Platform to 706 DA
③ Continued Ru^{106} Tank Farm operations.
④ Received rinses into W5 From hot pilot plant.
⑤ Ramsay loaned to Rinehaw For Four hours.
⑥ Dumped metal waste From semi-works into W4
⑦ DI just ran over at 62". No more Ru^{106} T.F work at least For the present
⑧ Run Status:
B6 – Product(?) See E.T.W. before going on.
A9 – Cell A wastes and heels evaporating to a volume where only one extraction will be necessary if we throw everything back into A9.
B12 – making lead removal
B3 – receiving lead removal solution From B12

3/23/49 ① Found A-16 motor heating up badly and smoking at 6:45 PM. Swung over to the spare. Note the

holes in the bottom have caps over them.
(2) Please note – The pan drain on the A16 spare fan (the one now operating) is closed.
(3) Completed C building iodine evaporation.
(4) Supplied equipment for glassware – Put periscopes in cell and cubicles etc.
(5) George Parker has a rubber steam line going into the lead covered off gas line on top of the SW cell in C. building. When we are finished evaporating, please turn the steam into this line. The valve is on the S side of the cell at the top.
(6) Repaired leaking steam valve on sump jet in make up room.
(7) Run Status: –

~~AP~~ A9 – heels and cell A wastes,
All other A cell tanks unchanged
B6 – product – fuming nitric evaporation nearly to dryness.
All other B cell tanks MT.

3/24/49 (1) Cleaned up sample carriers and stored.
12-8 (2) Run Status:
Schaich
A9 – heels evaporating with slight air sparging.
B24 – HA – Ether sampled
B3 – 3WFN "
B19 – Product

(4) We made a very serious error in evaporation procedure. A second valve on the steam line to B14 head heater was left closed. No one noticed low head heater temp. until 11 a.m., two hours after evaporation had gotten underway. This undoubtedly contributed a lot of dirt to product.

3/24/49
8-4
Sachs

(1) Evaporated A9 to ~ 65 gallons as per instructions.

(2) Run Status:

B3 - 3WFN

B6 - B6 Rinse

A9 - Cell A heels

Product in cone, plug partially inserted.

(3) 3:30 p.m. skyshine - 3220 c's, S.T.

(4) The product looked very dirty. It seemed to be in the bottom of the cone.

(5) Big jet turned on from W6-S.B. at 3:25 p.m. Ran for one hour.

(6) Put W12 back on overflow when counts come below 200,000 [redacted].

(7) REMOVED & STORED HCl-ETHER IN GARDEN CART of 706-D.

3/24/49
4-12
Benford

(1) Shut off large jet to S.B. at 4:25 PM

(2) Cleaned up and stored all sampling equipment

(3) Checked for hot spots on floor around J.1. There aren't any to speak of.

(4) Took skyshine at 9:15 AM Probes read 38½ and 40 R. HP probes off scale and 40 R. Calculates to 3244 C.

(5) Removed carrier with product from cell, had H.P. smear and loaded on truck. Results on smears and truck survey to be put in H.B's box by H.P.

(6) The shipping documents and courier receipt are in H.B's mail box. They'll be here for the truck at 5:00 AM.

doesn't get the message and comes in, give him 4 hours. He can make one Ru^{106} run in this time.
⑧ Can W5-W6 get all shift. Turn off at 11'

4-16-49
(8-4)

1. Picked up gloves and overshoes around lab hood.
2. Mait. Put oil in the big fan. It was down below the sight glass.
3. Mait. Packed jet valve and blowdown valve to pit.
4. Bad steam leak at union where logging is off on steam line to W7 jet. Closed valve off ~~at~~ next to main line until it could be repaired.

4-17-49 12-8 R.L.N.

1- Put First Coating Remover Sol in A-1
2- Received waste from 205 To W-6
3- Around 150 ML of P^{32} To Go through Column
4- Drained A-4 off GAS line At 7 $\frac{00}{4}$ M.

4/17/49
8-4
Bunford

① Loaded 76 slugs without incident.
② Cut of P194-195 with about 150 ml to go and took up in 300 ml of water. We got it this time sample reads ~ 940 mr.
③ Started the rest of P194-195 through the column. It should be through about 4:30 Then add 150 ml rinse.

④ Phosphorous product analysis 774 mcs.
⑤ Run status: —
A1 – First coating removal cooking 'til 5:25 PM
35% caustic made up in T9 for next removal.
⑥ Howard – PB says not to load the big phosphorous order for Chicago, but to load the others in view of the above result.

4-17-49 ① Decontaminated and returned 205 carrier.
4-12 ② Analysis first coating removal:
Russell A1, 2492 gms.
U, none detected
③ Analysis of 59% HNO_3 rinse:
Raba, 1 curie A.T.
U, none detected. (Colorimetric)
④ Decontaminated Phoenix Carriers. All smears below tolerance.
⑤ Took up the second P^{32} product.
⑥ Raba Run Status:
A1 – Second coating removal cooking
'til 1:10 A.M.
⑦ W-12 is overflowing → W-11 → 5.8.

4/18/49 ① W12 now on automatic
12-8 ② Run Status:
Sachs A1 – 1st dissolving. Sp. Gr. at 7:30 am was 1.35

4/18/49 ① Loaded pots 1, 4, and 5 and sent them on their way.
8-4 ② Riggers removed the two Phoenix carriers
Binford ③ Since the truck was overloaded pot #5 was brought back and stored here.
④ Contained Ru^{106} on third level
⑤ Analysis IMA - 3818AT 32145T, 104 c/slug 36.76 slugs
⑥ Run status
A9 - Batch A settling cold 'till 4:20 PM
A1 - Batch B coming up to S.G.
⑦ 4-12 please note - watch the caustic floco to A4 The drain apparently won't take over about 160 on the rotameter and the A4 pressure drop starts to fluctuate indicating flooding of the scrubber. We have cut back the water on A16 to 35 to help the situation.

4/18/49 ① K_2CO_3 analysis 45.0%.
4-12 ② at 4:35 PM lost all vacuum on A1 and had 15" A4 diff pressure. Cut back caustic flow, turned steam off, and finally had to turn cooling H_2O on before vacuum returned on A1. Caustic flow was at 100 at the time.
③ No high air count resulted and normal operation resumed.
④ attended "C" Eddy FI dissolving.
⑤ refilled George Clerk's column once every hour. Instruction pass on to 12-8.
⑥ checked P^{32} going thru column at cell IV.
⑦ Brought in two casings of slurry.
⑧ 8 WMA - 506 c's S.T.
⑨ at approximately 9:30 PM a high air count was

noted on 3rd level. (2nd level instrument seemed to be alright but later discovered it was shot) 3rd level was evacuated while H.P. was precipitation. "C" Bldg counters were off scale on the 10K scale. Also the lab discovered there's had been off-scale for quite sometime. The fact that all doors & windows were shut in "D" Bldg probably account for our low readings. Take it back, "C" Bldg's doors & windows were closed also.

⑨ Made 4700 # of 4% caustic for M10.

⑩ Made one Ra(OH)$_2$ run No 78. Some of the waste to be sampled & thrown away.

⑪ Ether purification column run all shift. Fill the bottle it is running into and give to Jab.

⑫ Run States:

A1 - Batch B coming up to Sp. G. (1.72)

A9 - Batch A

A11 - SWMA settling till 2:30 AM.

4/19/49

12-8 Sachs

① Checked I^{131} dissolving in "C" Building.

② Finished up the ether purification step on 3rd level and took the stuff to the lab.

③ Kept George Cheek's large column filled up in "C" Bldg.

④ Checked P^{32} going through the column at Cell E. About 50 ml to go at 7:20 a.m.

⑤ Received wastes into W3, W5; again in W3 and back to W5 from hot pilot plant.

⑥ Analysis:
GWMA – 52.4 C' L.S.T.
1MB – 3160 C's L.S.T.

⑦ Run Status:
A1 – heel dissolving
A9 – Batch A and B extracted. Settling hot until 8:30 a.m.
A11 – M.T.
A8 – M.T.
A5 – M.T.
A6 – GWMA.

⑧ Had terrific air counts all night, but things got back to normal at about 7 a.m.

⑨ Cleaned up some tools in the decontamination Room.

4/19/49 8-4 Hanford

① Brought back two skids of lead to decontaminate some of it is in the barrels.

② Cleaned out plugged vacuum trap on Rel[106] and continued operations as exposure time permitted.

③ Made up product carrier.

④ Sinks in N.S. + W hot labs are backing up due to plugged drain lines to W-12. Had to run A4 scrubber at a reduced flow of 50 on the rotameter.

⑤ Started decont. of lead in decont. room.

⑥ Had slight rise in air activity during A9-A8D8 decant.

⑦ Run Status
A1 Heels dissolving
A5 MT
A6 MT
A11 Settling until 8 PM. – Sample in lab.

A8 – 1st Water wash
A9 – 2nd water wash settling until 4 pm.

4/19/49 ① Burial ground and safes in office were unlocked.
4-12 ② Attended Georges Creeks coloumn in "C" Bldg.
Schaich ③ Received 247 Kgs of UNH soln into W4 from 205 Bldg.
④ Worked on lead brick until Bldg evacuated. Skid in front of dr. room is clean. Those in tunnel are cleaned but not checked. Another hot load on big truck.
⑤ At 8:45 PM a high air count was noted and a precipitron gas mask entrance. Everybody evacuated except those necessary to keep runs going. Bldg came down to normal at 10:45 PM. The last getting before high air count was finished by 8 PM. (A11-A6)
⑥ 12-8 Drain everything as we didn't because of heel dissolving
⑦ Run Status :- A1 – heel diluted & sampled.
A5+A8 – MT A8 has been washed.
A6 – 6 WMB sampled.
A9 – Run 32 1st Metathesis settling till 2:15 AM.
A11 – 8 WW
M1 – Batch CO_3 Ppt.
⑧ Checked regeneration of column and took R1. Completed caustic strike. filtered into TV-2. leave in TV-2.
⑨ Constant air monitor in office, lab & N. wall of "C" Bldg are definitely not working correctly. They go off scale to the left when things get warm.

4/20/49
12-8
Sachs

① Analysis: A1 heels – 223 C's at L.S.T.
8WW – 154 C's at L.S.T.

② Shift electrician installed about 15 Fluorescents.

③ Maintinance made up fitting for installation of new NH_3 cylinder. It's down by the one now in use.

④ Watched Creeks column in C Bldg.

⑤ Worked on lead clean-up all shift. The two skids loads are clean. The other stuff is cooking in nitric acid solution.

⑥ No air counts on practically none anyhow.

⑦ Run status:

A1 – A1 heels, hold.

A5 – Neutralized 6WMB.

A6 – M.T.

A9 – Product heels heating up to receive 3333 ml of K_2CO_3 for last metathesis.

A8 – two-thirds of 8WC

A11 – 8WW

4/20/49
8-4
Binford

① Scrubbed up hot spot on 1st level
② Continued Ru^{106} on third level
③ Patterned two skids of lead to buried grooved. Worked on remainder.
④ Finished preparing product carrier.
⑤ Took special sample of A1 Heel for lab
⑥ Ran large jet A16 → 513 1 hour
⑦ An attempt to get A sumps caused so much fluctuation in the A4 vacuum that it was abandoned.

⑧ Steamed B19 head heater 1 hour
⑨ Repaired third level hoist.
⑩ Started making up HCl-ether carrier.
⑫ Started making up glassware rinse carrier

Run Status

A1 - Heels dissolving - sampled
A9 - First wash decanting as of 3:40 PM
A11 - 8NW sampled
A8 - 8NC sampled
A5 - MT
A6 - MT

4/20/49 ① Brought in two cadays of Ru^{106} slurry.
4-12 ② Finished work on HCl-ether carrier & glassware rinse. Started carrier.
③ Jetted 10" into A5 from A sump but was only able to get out 4" from A5 before we got a pressure surge on A4. Jetted small amounts all shift.
④ 8WCW Analysis - 539 cts S.T.
⑤ Turned off Kimshaws evaporation at 9:45 PM.
⑥ Attended George Cooks column in "C" Bldg.
⑦ Check P32 going thru column.
⑧ Finished K81 and completed K82 on Ru^{106} setup.
⑨ Tools in pant of dec. room smear < 50 counts/min.
⑩ Cleaned up some lead. A few hot pieces still in dec. room.
⑪ Run Status: B12 - Electrolysis till 5^{08} AM
A9 - A9 Rinse
A8 - 8WCW
A11 - 8WW
A1 - Heel dissolving diluted.

Called B. Cook about leaking flask in his cell and shut off according to instructions.

4/21/49
12-8
Sachs

① Checked P^{32} at Cell U. Added water wash at 7:10 a.m.
② Operated Creeks column in C Bldg. It was C. Parkins equipment that went blooey.
③ Both 6P samples read ~ 75R at 6".
④ Installed scopes in Cell B and cubicles.
⑤ Jetted down the sump to A5 and kept trying to shove it from there to W12 until we started B6 evaporation.
⑥ Maintenance regulated the flow of oil to governor on steam engine.
⑦ Run Status:
B6 - First evaporation almost complete.
A9 - A9 rinse
A8 - SWCW
A11 - SWW
A1 - heels dissolved
A5 - sump H2O
A6 - M.T.

4/21/49
8-4
Binford

① Took rest of the lead to the burial ground
② Ran large jet W6 → SB 2 hours.
③ Brought back two skid loads of lead to be decontaminated.

④ Run States: —

A cell tanks as last shift

B cell

B-6 — B6 rerun sampled

B-3 — 1st half of 3WFN

Glassware — second HCl-ether filtration.

⑤ Placed plexiglass shielding over Cu^{66} setup.

4/21/49 ① Finished regeneration of column and pulled
4-12 R1 sample at Cell E.

Schmidt ② HCl-Ether analysis - 405 c/s S.T., 3WFN - 66 c/s S.T.

③ Rinsed HCl-Ether and stored at side of bldg. It read better than 100R at 4 ft over the top. Was only able to put one 50 ml H_2O wash thru B24 because the ether fumes backed up into line. Assumed bottle was full and stopped at this point.

④ Finished work on George Cuck's column.

⑤ Decontaminated lead on the skid. The rest is still hot.

⑥ Run States:

A cell tanks same as before

B19 - Product evaporating till 12 PM.

B3 - 3WPB sampled

B10 - 3WFN "

⑦ Can't get vacuum on A1. Needs a good draining if we could get away with it.

4/22/49 ① 1 a.m skyshine was 3950 C's. Product loaded
12-8 Wade as the ace of spades.
Sachs ② Continued Ru^{106} 3rd level operations.
③ The product cone is in the canner with plug inserted one inch.
④ Cleaned up the lead in the decontamination room. It's on a skid on the E. Platform.
⑤ Product read 31 R through skyshine plate.

4/22/49 ① Removed product - on its way at 11 47/A.M.
4-4 ② 3800 C's shipped ~~47~~ R skyshine - 15 r/hr.
S.T. ③ HCl & they moved to garden for storage
Blauer ④ Received Chicago truck + Dayton truck.
⑤ Ran W6 → S.B. two hours.
⑥ Scrubbed 3rd level.
⑦ Made a glassware rinse + stored in garden
⑧ Maintenance unstopped line to W-12.
⑨ Adapters in barrel to be cleaned
⑩ Brought towels, gloves etc from stores + laundry
⑪ Started getting all wastes into A-5 for neutralization.
⑫ Partially decontaminated J-1 blister by sucking 250 ml. H_2O back from J-1 into B-24.

4/22/49 ① Rt. hand valve of the A16 fan drains has come
4-12 off. Do not open this valve when draining the fan until
Shaich repaired. Too hot in there to do anything about it.
② Rinsed all the glassware lines and put a rinse
time cell A + B tanks. Sent 435 gals. of neutralized
waste from A6-W9. 2-40 gal. rinses from cell A

5/23/49
[8-4] ④ Received waste into W3 From 205 Bldg.
⑤ Electrician repaired then bad instrument switch on P.B. #1.
⑥ Pipe Fitter worked on 3rd level drinking fountain.
⑦ Loaded 32 H slugs into A1 - Trucle and 205 slug charger are at the canal.

5/28/49
[4-12] ① Sended wdene dissobung in C building – the off gas has been jumpy
② Watche Rumshaws filtration on third level.
③ Loaded 44 slugs withwut incident – Heat mike doesn't work so good
④ Both Phoenix carriers are cleaned – smears not back.
⑤ The charging machine has been cleaned and is ready to go to 205
⑥ Pwr status
A-1 Ready for 2nd shot of caustic

5/24/49 ① Returned slug charger to 205 Bldg. Stored cranks
12-8 on 3rd level
Shaich ② Attended FI dissolving in "C" Bldg.
③ Continued Rumshaw's filtration.
④ Tools & jet in front of dec. room are clean.
⑤ Cleaned up oil spill at vacuum pump.
⑥ 1st Coating Removal – 7432 Kgs. Al → No Good Lab Checking
5% HNO_3 Wash – .185 C's S.T.
⑦ Phoenix Carriers are okay.
⑧ Melted two sulfur cans at Cell X and loaded two more cans in the pig.

(9) Run Status:

A-1 Batch A dissolving

5/24/49 8-4 Sachs
(1) Instrument man repaired the clock on the A5 ring balance.
(2) Pulled a sample out of the E. pond for P.B. Orr.
(3) Moved skyshine source to 3rd level
(4) The drinking fountain on 3rd level is operational.
(5) Furnished exposure time at Cell U. (Phillips).
(6) Helped check for leaks at the evaporator.
(7) Run Status:
A1 - Batch A diluted and cooling.
(8) Sam Prince had a man on stream for three hours. Performing O.K.
(9) Carpenters started putting in windows 3rd level.

5/24/49 4-12 Benford
(1) Phosphorous is going through the columns. The evaporator is pretty slow so watch it.
(2) Cleaned up make up room
(3) Run status
A-1 Batch ~~B~~ coming up to S.G.
A9 Batch A settling cold til 12:30

5/25/49 12-8 Schaich
(1) Maintenance replaced gasket on M1 to M10 jet.
(2) Made up batch of caustic in M10 + batch of $Co_3 PO_4$ in M1.
(3) BWMA - 111 c's S.T.
A P^{32} evaporating very slowly.

Run Status:

A6 – 6WMA Sampled

A1 – Heel

A9 – Batch B – Adding H_2SO_4

(5) Micromax No 17 PB2 needs new chart or chart adjustment.

5/25/49

8-4 (1) Riggins removed the two Phoenix canning Sacks from the building.

(2) Put decontaminated jet in low storage.

(3) Instrument man worked on correct calibration of A6 all shift.

(4) Run Status:

A1 – heels dissolving, cooling, not sampled.

A9 – Settling cold till 5:15 p.m.

A11 – M.T.

A6 – M.T.

A5 – M.T

AY – MT

5/25/49 (1) Started working on evaporator test run. The following
4-12 procedure is recommended rather than the one outlined
Bunford in the written instructions. – (1) Dissolve the soda ash in dilute nitric acid rather than water – water takes too long. Slurry it with a hard stream from the hose and jet into the tank.* (2) Dissolve the rest of the dry chemicals in water and jet into the tank (3) Add about half of the required make up

* This may require two or three dissolvings per bag of Na_2CO_3

water (4) Set the nitric (less the amount used to dissolve the soda ash) into the tank. (5) Add the waste from W-5 (6) Make up to required volume with water. (7) Then proceed according to Nicholson's instructions.

(2) The present status at the evaporator:- All the soda ash has been added to the EFT plus 4/10 carboy of nitric; hence EFT requires the dry chemicals, 6 carboys of nitric, and the waste from W-5. Before adding this last make sure there are no open lines at the Xmas tree. Some has been working there. The Ev contains water as does the condensate tank. The cond tank will have to be emptied but only take as much out of the Ev as you need for space to add the feed chemicals - probably 500 gallons. We have rounded up a few of the chemicals. They are on the victope table on the first level. Since you can't add from W-5 direct to Ev use one of the drums of water which are setting out at W6

(3) Phosphorous all through column and evaporator about half full

(4) Finished up fission ovens

(5) Run status

A1 - Sub-sampled
A5 - MT
A6 - MT
A9 - Last WW settling til 12:40 AM
A8 - 8WW first part
A11 - Batch B settling til 11:50

5/26/49 ① Continued hunting & adding reagents to evaporator
12-8 Only found 17# $Al_2(SO_4)_3$ but this reagent has 18 which molecules of H_2O so you still need 16.2# more in EFT.
None has been added to the EV. No $Fe(NO_3)_2 \cdot 6H_2O$ to be found anywhere. (Why not use $FeSO_4$?) Didn't add hot waste because valve wasn't tied in.
Here is what is needed:

EFT – 36 gms $Fe(NO_3)_2 \cdot 6H_2O$
36 lbs waste from WS.
16.2# $Al_2(SO_4)_3 \cdot 18H_2O$

EV – 10.8# $Al_2(SO_4)_3$
24 gms $Fe(NO_3)_2 \cdot 6H_2O$
·6 carboy 60% HNO_3
24 gals of waste.

Scales at evaporator belong to Purdy. Weights belong to Lab. All reagents at evaporator except 6 carboy of 60% HNO_3.

② Had high air count after 6WMB jetting + sampling. Lab was evacuated for 2 hours. Rest of the bldg. warm but not above tolerance.

③ Checked evaporation and added nine to P_{32} at cell V.

④ Much easier to heat 25 gal of H_2O, add 100# Na_2CO_3 stir + jet to tank. Revision to Frank's revision.

⑤ Run Status: A1 – Hot
A6 – Batch B neutralized
A8 – 8WC
A9 – 2nd metathesis
A11 – Hot 8WMB + 8WW

⑥ 8WW – 82 c's S.T. ; 6WMB – 40 c's S.T.

5/24/49
8-4
Sachs

① 205 Bldg. borrowed our big scope (4 sections) at 8:20 a.m.

② Ramsay worked with Nicholson at the evaporator the entire shift.

③ Prepared a product canning.

④ Run Status:
A1 - heels dissolved and sampled
A9 - 3rd metathasis settling until 4:25 p.m.
A8 - two tanks of SWC
A11 - heel of SWMB and SLW
A6 - LWMB neutralized.

⑤ The drain pipe on the southeast corner of the Bldg. was repaired.

⑥ Instrument man checked 86 instruments.

5/26/49
4-12
Binford

① Continued work on evaporator: - Started evaporating at 10# after adding detergent and gradually worked up to 25# with no foaming. Kept raising pressure and noting rate of evporation until got foaming (indicated by activity in crud tank.)
Shut down at 9:30 to make up feed - all ingredients have been added except most of the nitric the acid is out there - Then make up to 55".

② The tank monitor dropped very suddenly from the high reading of this afternoon. Maybe there was a leak of hot crud in the tank

③ The jet W6 → SB is on, to be turned off at 12:15 AM

④ Phosphorous still going through.

⑤ Sealed Rimehaus Gyymo on third level

⑥ Run status

A1 – Kelo

A9 – A9 rinse sampled A-8 8WCW samples

A5 – MT

A6 – Neutralized batch B

A11 – Batch B kelo & 8WW

B12 – Electrolyzing 15 amps til 1:36 AM

Samples: 8WC 314 ST

5/27/49 ① 8WCW Analysis – 651 c's ST.

② Checked P32 going thru column & added rinse.

③ Checked Rimehaus apparatus.

④ Turned off big jet W6–SB at 12:15 AM.

⑤ Continued work on evaporator. Went up to 50 psi without foaming but condensers get to hot at this pressure. Made up 100 gal batch for FT and started running at approx. 300 gal/hr at 7:05 AM

⑥ Run Started:

B12 – Product electrolysis until 8:36 AM.

all cell A tanks same as 4-12.

⑦ Put scopes in cell and steamed head heater

5/27/49 ① Maintainance repaired H_2O pipe leak on 2nd
8-4 level balcony, Southwest corner.
Sachs ② It was necessary to evacuate 706D and 706C
Buildings For ~ 10 minutes because of high air
count during transfer of product From B12 to
B6 and sampling of 6P.
③ Prepared the glass panel board For glasswaring.
④ Instrument man worked on B6 Sp. G. manometer
and finally got it working. Also, the skyshine
source was checked.
⑤ 6P Analysis, 3768 c's L.S.T., 429 milligrams of Pb (total)
⑥ Sampled W7, W9, W11 dry wells For P.B. Onn.
⑦ Run Status: Glasswaring!!!!!!
⑧ B6 rinse has been sampled; also 20 liters of H_2O
have been added to B3.

5/29/49 ① Continued work on evaporation. Instructions over there.
4-12 ② Phosphorous – 1st Hill shot evaporating
Binford ③ Run status – glassware. The product should be in
the carries by 12:00 midnight.
④ L.S.T 10 ° 4.
5/28/49 ① No 1 Lead heater variac went out at beginning of
12-8 evaporation. Electrician found voltage everywhere
Schaich in line so coil must be shorted. Switched over
to No 2 heater and ½ hour later variac went
Wow it. Held temperature by switching 1 heater
on + off.
② Run Status: Product under B19 heater.
③ B6 Rinse (2nd) – 476 c's S.T.
34FN – 71 c's S.T.

④ Continued Brassley's column.
⑤ Took up 0.32 product but was unable to get a PH. PH paper gave approx. 3.
⑥ Tried to decontaminate condensate activity tank with hot citric acid but had no success. Instrument men could not take tube out because it is soldered in place. This is one h--- of a contraption if it will have to be decontaminated everytime a hot spot comes over.
⑦ Shut down evaporator when feed tank stopped feeding. All notes in log. Have added 400# soda ash to EFT. All other chemicals to be added at evaporator. The $Al_2(SO_4)_3 \cdot 18H_2O$ in the bag is weighed. (31.5#)

5-28-44 ① 10 hr & 45 min shine was 33R. Product
8-4 content 3360 c's.
Blaney ② Product was dark brown & distributed evenly in the cone on the sides & bottom.
③ Truck left at 11:45 AM for Los Alamos.
④ Glassware rinse taken and stored C. of Cell A.
⑤ Started cell clean up.
⑥ All chemicals added to EFT except waste from W5 and H_2O. — no sample taken.
⑦ Turned off steam fan.
⑧ Combined all waste in cells A & B with MW batch B. and settled to W9 with the exception of the Bell Dissolving which is now in A6 and ready to go to A5.

7/10/49 ① Loaded 76 slugs without incident.
8-4 ② Got the evaporator started and continued operations.
Bunford H.B shut down evaporator and started washing all E-. log.
③ Washed off the charging machine and set on east platform for riggers to remove to 205
④ Scrubbed up both Phoenix Carriers – They have been smeared. All OK except smear #4 on Phoenix #1.
⑤ Unplugged A1 S.G. instrument :– used S.G 1.25 based on last two runs for S.G. of 1st Coating removal sample, as the instrument was not working when we took the sample.
⑥ Run status :–
(A-1) Nitric wash on 1st C.R ready to get out.

7/10/49 ① Maintenance unplugged 3rd level floor drains.
4-12 ② Cleaned up hot spot on Phoenix #1. Okay to go.
Schaich ③ Emptied EV samples Run #12 end up.
④ Dumped Run #16 and started Run #17 at EV. Going like hell at shift change.
⑤ Accidently cut 2nd Coating removal short by 2 hours. Lab analysis of 1st + 2nd removal gave total of 3780 gms. In comparison with other runs this is okay. Frank's assumed to be make this figure lower than it actually should be.
⑥ Run Status:
Batch A discharging just starting.

7/11/49 ① Received metal waste into W4 from 205 Bldg.
12-8 ② Held up on lot dissolving about an hour and a half
Sachs while the instrument man repaired the A1 Sp. G. ning balance. Put steam on A1 at ~ 1:45 a.m.
③ Continued Evaporation operation.
④ Dumped Acids.
⑤ Run Status:
A1 - Batch A dissolving. Sp. G. of 1.72 at 4:45 a.m.

7/11/49 ① Loaded drums 23, 14, 70 and Pots 5 and 20 and
8-4 sent back to Chicago.
Rumford ② IMA - 3131 ST 107 c/slug AT 34.6 slugs
③ Run status:-
A1 - Batch B coming up to S.G.
A9 - Batch A setting cold til 6:16 PM.
④ Evaporator run 17 still perking along.
⑤ Stored evap samples behind PB 3 and dumped those no longer needed.

7/11/49 ① Run #17 still going but I won't guarantee the
4-12 h.l. reading. Trouble noted in EV log.
Schaich ② Brought 4 gal. of kerosene from gen. stores to EV.
③ Made up 85 gal of 4% caustic in M10. That's all the caustic Emptied M11 into M10.
④ Cleaned out EV sample bottle.
⑤ 8WMA - 156 C's S.T.
⑥ Brought in acid from E. Platform.
⑦ Run Status: A1 - Batch B diluted + cooling
A9 - Batch A
A11 - 8WMA setting till 12:25 AM
A8 - MT

⑧ Checked FI dissolving in C" Bldg.

7/12/49
12-8
Sachs

① The C.A.M. on 3rd level recorded a sharp increase in air activity about a minute after completion of the A11-A6 decant on batch A, but it did not go off-scale and soon leveled out. The 2nd level C.A.M. only went about one division on the chart and leveled out.

② Analysis: 1MB - 2373 C/s L.S.T. 36.2 slugs dissolved.
6L0MA - 20.8 C/s L.S.T.

③ Run Status:
A1 - heels dissolving.
A9 - Batch B extraction settling cold till 10:40 AM.
A11 - M.T.
A8 - M.T
A5 - M.T.
A6 - M.T.

④ Melted up two Sulfur cans for P^{32} men.

⑤ Recorded hourly readings on I^{131} dissolving in C Bldg.

⑥ Continued Tank Farm evaporator operation. Kind of slow going.

7/12/49
8-4
Buford

① Completed run 17 at the evaporator. Cleaning up for run 18.

② dead burners repaired sawed off plug. Stored in cabinet on 3rd level

③ Run status

A1 - Heel Dissolving - ready to sample (Do Not Dilute)
A9 - Water wash settling til 4:50
A8 - 1st part 8WW
A11 - 8WMB Settling til 5:10 PM
A6 - MT
A5 - MT

Results 8WMB 209 ST

④ Made up product carrier.

7/12/49 ① Heel Dissolving Analysis 6.4 chgs 373 c's S.T.
4-12 ② Started run 18 after clean up of EVAP including an Blaw-Knox acid wash. started the new sampling procedure by C.T. Sachs Composites
③ Made up a glass ware rinse cannier on 3rd level.
④ Tank Farm evaporator going O.K.
⑤ Analysis:
6WMB - 40.8 C's L.S.T.
8WW - 138 C's L.S.T.
⑥ Run Status.
A9 - 1st metathesis settling until 11:35 p.m.
A8 - HNO_3 solution to receive 8WC
A11 - Heels of 8[redacted] 6WMB and 8WW (hold)
A1 - heels dissolved and sampled. Don't dilute and hold.
A5 - neutralized 6WMB. (Hold)
A6 - M.T.

7/13/49
12-8 ① Had maintinance put in new NH_3 cylinders on
Sachs the A16 off gas system. Used one on E. Flat.

③ All Cell B tanks are empty.
④ Run Status:
A1 - dissolved heels - hold
A5 - Neutralized 6WMB - hold.
A11 - 6WMB heel + 8WW
A8 - two-thirds of 8WC
A6 - M.T
A9 - 3rd metathesis settling until 10:05 a.m.
⑭ Melted up two cans of Sulfur for P^{32} run.
⑮ Checked P^{32} run going through column.
⑯ Continued tanky Samm evaporator operation.
Sp.G. on Evap. went haywire again.

7/13/49.
8-4 ① Dumped run 18 at evaporator and started run 19.
Branford No trouble cleaning out. Even got a final av sample.
② Run status.
A-1 Dissolved heels-hold
A-5 Neutralized 6WMB-hold.
A-11 6WMB heel and 8WW
A-8 8WC & 8WCW sampled
A-6 MT
A-9 Run being transferred to B12 at shift change

7/13/49 ① 8WCW - 514 ST 8WC - ~~1138~~ 272 ST A9 Runs ~~1655~~ 215 ST
4-12 ② Continued run 19 at evaporator.
Branford ③ Run status
Schaich A cell as above
B cell B-12 electrolyzing at 25 amps til 2:15 AM

④ Steamed head heater.
⑤ Checked phosphorous at cell I still going through SR-2.
⑥ P^{32} on the column at shift change.

7/14/49
12-8
Sachs

① Put a liter of H_2O into B20R through the funnel rack. Disc must be an awfully slow one. Took ten and one half minutes to filter 1000 ml into B20T. Also took more than the normal amount of pressure on the disc to get any agitation.

② Checked glassware chromite traps. They are O.K.

③ Put scopes in cell and cubicles. The rotating mirror on the big scope was so rusted that the motor wouldn't move it. Cleaned up the joints and oiled them. Works O.K. now.

④ At 5:15 a.m., ten minutes after adding Fuming HNO_3 to B6, the A16 ~~[redacted]~~ Fan cut out. Put H_2O on B6 product and condenser, and threw in old Fan. Electricians got the standby Fan going again and we switched back to it. No air count was noted. Opened the door to the barricade. A little air might keep the motor running cooler.

⑤ Checked P^{32} going through column at Cell II

⑥ Continued Tenth Farm evaporator operations. Two successive foam-overs occurred.

⑦ Run Status:
All Cell A tanks as above
B6 - 350 ml product solution ready for glassware.

⑧ Analysis: 6P-4036 C's L.S.T.

7/14/49 ① Dumped run 19 and started run 20 at evaporator.
8-4 Going at 600 gph clips all shift.
Bunford ② Glassware! Completed!

Run status

A-cell no change

B-cell

B3 – 3WFN 32.9 C AT

B6 – B6 rinse 10 c S.T. neutralized.

B1[illegible] – Hell ether waste – 389 C AT 370 ds S.T.

Product at B19 evaporating 'til 6:50 PM

③ Received U waste W12 → W9 from semi works

7/14/49 ① Emptied EV samples.
4-12 ② Washed cell at out with 20 gal of H_2O and Schaich jetted to A5.

③ Finished Pb removal in B12 and sampled 3W Pb.

④ Checked P^{32} going thru column at cell I.

⑤ Did not get to see product. Everything was in order straight but viewing funnel seem to be out of line. Skyshine read as follows

1st – 42.5 R skyshine
32 + 52 R on H.P. inst.

2nd – 43.5 R skyshine
36 + 60 R on H.P. inst.

Product loaded on truck.

8-14-49 8-4

H20 is still going through column on 3rd level -
Continued tank farm evap run good all shift

8/14/49 4-12 Buford

① Loaded 74 slugs without incident.
② Neither the Phoenix carriers nor the slug charger have been cleaned. The Phoenix carriers should be cleaned and stored on the E Platform.
③ Removed bucket from the slug charging machine. It is in barrel in decon room - looks like it'll have to be heated to straighten it.
④ Continued evaporation
⑤ Rum status.
A-1 First coating removal coming up to temperature
⑥ Obtained 1 dog towels from stores

8/15/49 9-8 Schmick

① 1st coating removal - 1812 gm? Lab wasn't sure they used correct chart.
HNO_3 Wash - .784 c's total A.T.
34 gms U
② Continued evaporating at evaporator. Two ~~One~~ pan over.
③ The charging machine is okay to return. Phoenix carrier on E. Platform cleaned but not smeared. The one in the bldg could not be moved. There are no riggers in our crew.
④ Rum Status:
A1 - 2nd coating removal - 9:30 AM.

8/15/49 ① Scrubbed Phoenix II and stoned on E. platform.
8-4 Had both cannions smeared.
Sachs ② Riggers removed block on top of Evp. for maintenance work tomorrow. Stretched a tarp over the hole.
③ Pipefitter repaired steam leak on P.B. # 1
④ Loaded six drums and 1 Pot on Chicago Truck.
⑤ Work was started on the installation of an automatic C.T. sampler at the T.F. evaporator.
⑥ Sent slug changes back to 205 Bldg.
⑦ Run Status: Al dissolving.
⑧ Continued Evp. Operation. Shut down at shift change because of foam over at 3:20. Blowers were started up and run at 30" L.L. in Evp.

8/15/49 ① Shut down evaporator and started cleaning out tanks
412 to W-5. There are three carboys of HNO_3 out there
Bunford to be fitted to the feed tank → evaporator → W5.
② Watched iodine absorbing in Chaudelong.
③ Brought over 2 sulfer cans to cell V
④ Took care of Renshaws and Presleys columns. verbal to 12-8.
⑤ 1 MA — 2928 ST 98.2 C/slug 95.9 slugs
⑥ Run status
A1 Batch B coming up to St. B.
A9 Batch A settling hot til 12:20 AM.

8/16/49 ① Finished Renshaw's column & evaporation work.
12-8 Attended Pressley's column although it didn't
Schaich go very far. Didn't adjust it because of iodine.
② Melted two cans of sulfur at Cell V.
③ Rinsed & sparged EV tanks with 5% HNO_3
and then filled all tanks with H_2O. Reading
190mr/hr at automatic valve. 1R at duct to cond.
④ Attended FI dissolving in "C" Bldg.
⑤ Made up small batches of 4% caustic all night
Whoever thought of that idea ought to have his
head examined.
⑥ Run Status:
A1 - Batch B dissolving
A9 - Batch A Heel
A11 - 8WMA Settling till 10:30 AM.
⑦ 8WMA - 290c's S.T.

8/16/49
8-4 ① Run Status:
Sachs A9 - Batch B settling hot until 4 p.m.
A8 - M.T.
A11 - M.T.
A1 - heel dissolving
A6 - Receiving neutralized metal waste from A5
A5 - Jetting neutralized waste to A6
② Maintenance removed three valves from T.F. Evaporator. Did decontamination on them. The air operated valve parts won't be in until Friday.
③ Phoenix cannisters are o.k.