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ChemRisk Repos. No. 2051

OAK RIDGE NATIONAL LABORATORY
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A DIVISION OF UNION CARBIDE AND CARBON CORPORATION
POST OFFICE BOX P
OAK RIDGE, TENNESSEE

NOTEBOOK NO. A-436 . EXCERPTS

Assigned to: Harris Blauer

Department: Operations

Location: Bldg 3037

Date: May 4, 1953

This notebook is assigned to personnel performing research and development work and must be used for all original calculations, notes and abstracts from reports.

Assignee is responsible for the safe-guarding of this notebook in accordance with security regulations.

Do not use scrap paper.

Be sure to record all personal conferences.

This notebook must be returned to Central Files - Bldg. 4500 when ompleted or upon termination of assignee.

RUN 52 (cont'd)
[No mention in these excerpts of 52A]?

RUN 53
RUN 53A

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RUN 52 cont'd

5/27/53
12-8 4. Continued adding liquid Nitrogen to Hasser's
cont. Cold trap
5. Continued Evaporating at 200 gal/hr.
6. finished F.I. Scrubber skins and sampled F-1
7. Cooled A-1 Heel dissolving at 3:00 Am and sampled. Can't get the true volume of sol. A-1 SP. GR. Inst. out of order.
8. finished filtering 3rd metathesis in A-9 the filter is almost Plugged, the first water wash was added at 5:00 Am and is only about ½ filtered at shift change.
9. Run status.
A-1 A-1 heels dissolving.
A-5 - Wash from A-17 + A-8.
A-8 - 8NC 2nd metathesis.
A-9 - first water wash after 3rd met.
A-11 - 8NC first metathesis.
A-17 3rd metathes and part of first water wash.

5/27/53 8-4
① Opened W2 drain line.
② Pipefitter repaired makeup pit sump jet, Schaick M10-M3 valve, and A1 jacket return line.
③ Cleaned and smeared acid carboys.
④ Took up FI products and continued decontamination.
⑤ Boiling down crude P^{32}.
⑥ Adjusted product pH on second shot. Went for 6.5, got 6.3.
⑦ Ran steam turbines 4 hours

(8) Cleaned out A cell samplers and cleaned up sampling equipment available.
(9) Run status. : A1 - Heels
A5 - SWCW
A11 - SWC
A8 - Resin Cubicle Wastes.
A9 - A9 Rinse.
F.T. - F.T. "
Running 1M HCl thru Col.

5/27/53 (1) Continued with decontamination of FI
4-12 cell. Opened door at top of cell and
Compton removed bricks. Reading just inside
cell was 15R/hr. Sprayed cell with
Versene, $KMnO_4$, and HNO_3. Reading
at same spot just inside cell is 5R/hr.
(2) Continued P^{32} run. Had trouble getting
product off of P-1 left it reading ~~14~~ 7 on R^2
Product in EV-2 at shift change.
(3) Run status
A1 — Heels
A5 - Cell A sump sol.
A11 - SWC
A6 - SWCW
A8 - Resin Cubicle Waste.
A9 - A9 Rinse
F.T — F.T. "
P.E. — ½ product boiling down
Hel T. — ½ product.

5/28
12-
R.L.

④ The upper jacket to P.E. Tank does not get steam or water. Took lines loose down to cubicle and found them clear. Disconnected at steam trap and still could not get any steam.

⑤ Had instruments check ion recorder to cubicle and nothing could be found wrong. They could not check chamber.

5/28/53
12-8
R.L.N.

1. Continued with P^{32} Run, boiling down in Ev. # 3 at 8:00 A.M.
2. Continued spraying the F.I. cell with oxalic citric versene + nitric acid, started a 2nd cycle through the tanks Reading inside the cell at the top Doors 8 R/HR. tank status is on the desk at the cell.
3. Put 10 liters of 3.0M $NaNO_3$ through the column and followed with three liters of water this is in the Hold-up tank.
4. Run Status.
   P.E. Tank Product boiling down after the P.E. #2 sample.
5. Delivered a 1ML sample of P.E. 2 to Packing, Put it behind the barricade.
6. Main waste has M.N.F.N. sampled.
7. all other tanks are as 4-12 Shift
8. The PH Pot on P^{32} Equipment has the stem broken off again.

5/28/53 ① Continued FI cell decontamination.
8-4 ② Continued evaporating. Raised to
Schaich 225 gal/hr. Special C.T. – 184cc at 11AM
③ Resampled A9-PF Rinse. Made two more rinses thru filters and sampled. 1M HNO_3 thru both filters and 3M HNO_3 thru PF-2.
④ Everything ready to remove product when it Drys. (yuk, yuk)
⑤ Run status: A1 – Heels
A6 – 8WCW
A11 – 8WC
A9 – A9-PF Rinse #3
A8 – A9-PF Rinse & MWFN
F.T. – Rinse – Versene
P.E. – Rinse – 9M HNO_3
M.W. – M.W. $NaNO_3$ Elution
⑥ R.C. #300 radiation monitor shorted.
⑦ P.E. upper jacket rupture disk burst.
⑧ Sparging HNO_3 in FI dissolver.
⑨ P^{32} product being rerun. Boiling down in Gold Evap.

5/29
12-8
R.L.H

5/28/53 ① Continued FI cell decontamination by
4-12 spraying cell with Versene, HNO_3, KMOX ect
Sampton Also continued sparging solutions in dissolver.
② Continued evaporating. Runing with 7 lights. Special CT. sample – 29cc

③ Took up P^{32} product and sampled. Sample read 500 mr/hr. Color of product looked all right.

④ Made Two more A9-PF Rinses and sampled (No 4 + No 5.) No 4 — 5000 curies
No 5 — in lab.

⑤ Product dry - Took a look at 9:00 PM — 50 ml ~~200~~ To go. Another look at 10:30 PM — 10-15 ml to go.

⑥ Run Status: A1 - Heels
A6 — 8WCW + Tankwashes.
A11 — 8WC
A9 — A9-PF Rinses HNO3
A8 — A9-PF Rinse + MWFN versene
FT - FT " " versene
PE - PE " " HNO3 9M.

⑦ Took reading on dried product.
Reading Electrometer 2.5 x R' — 18000 curies
" Counter — 7000 curies

5/29/53 12.8 R.L.N. 1- Loaded Product into Cannier ~~down~~ the Cannier Head 10 R/HR @ 1' With the Paper on Decontaminated the threads on Cannie. down to 1500 MR With the Ring off, the hottest spot With Ring on was 20 MR/HR hottest Smear 1920 C/MIN Rescrubbed four of the Hottest Smears but did not Resmear truck left the area at 4:45 A.M.

2- Washed down Cottrell Precipitation

RUN 53

way of telling A-1 temp. the thermocouples are bad.

7/1/53 ① East Vac. pump was loosing oil and could not see
4-12 oil level. switched to W. pump and found
Schaich pumps had too much oil in reservoir so it came
out overflow line.

② Made up batch of Na_2CO_3 in M-1.

all O.K. ③ Cleaned and smeared hot spots on 2nd level.

④ Jacobs will work 12-8 until the smoke clears.

⑤ D.B. up at 3 & 7PM. Sampled M.H.S.

old D.B. – 88	139 – 0 c's	
M.H. 3 – 0	150 – 11 c's	Sp.C.T. – 64 c's
" 14 – 38	149 – 21 c's	
" 25 – 11	3500 – 702 c's	

11PM D.B. – 49 c's.

⑥ Loaded FI slug and started 1st coating removal.

⑦ Loaded 16 slugs in A1. Carrier at Pile being loaded. A1 contact mike not operating.

⑧ Continued evaporating & patrol work.

7/2/53 ① Finished FI coating removal and started
12-8 dissolving

Lampton ② Continued evaporating.

③ Loaded 16 slugs into A1 tank and made another load into A1 and found slugs were jammed into slug shoute. Removed ~~two~~ three slugs with tongs and took them back to pile. Ran coating removal solution

down loading shute. A total of 45 slugs are in A1 or the slug shute and all the others are at the pile.
④ Continued patrol work.

7-2-53
8-4
R.L.N.

1. Continued with dislodging slugs in the slug chute fished out three and turned four more into the Dissolver. Continued running caustic down the slug chute.
2. Continued with F.F. Dissolving lowered the temp. to 95° at 11:30 A.M.
3. Continued Evaporating.

7/2/53
4-12
Schaich

① Continued evaporating & patrol work.
② 3rd sparging still draining from C.T. to still. 1st sparging still boiled down in crude evaporator ready to transfer.
③ Continued to fish for slugs but no success. Started trickling 1st coating removal solution at the point were slugs were jammed. Also heated buckets full and washed down shoot. At shift change last of the 2nd part of 1st Coating Removal trickling on slugs. At 15 min. intervals pounded on slug chute and probed with weight & fish probe.

7-3-53
8-4
R.L.N

7/3/53
12-8
Lampton

① Continued evaporating.
② Continued patrol work. The #1 refluxing pot

is not working in room A1. The distillation going on in room A5 has stopped distilling though the temperature remained the same.

③ Finished boiling down 4 cuts of 1st FI sparging still, sucked to flask, and sampled as FI. Sample radiation reading was 40 R/hr.

④ Finished cuts on 3rd FI sparging still and ran 4th sparging still. Boiling down in Rm.10 with approx. 2 transfers to go. Dropped scrubber and sampled. Reading 2R/hr.

⑤ Continued to fish for slugs with no luck. Finished trickling ~~second~~ first coating removal down slug shute. Made first coating. Started second coating removal. Put the ~~cous~~ first half of caustic and acid in A1 and ran ~~and~~ half down slug shute. Pounded on pipe and probed with fish probe and weight at intervals.

⑥ MH #3 is OK. The pen was plugged.

7-3-83 8-4 R.L.N.

1. UNPlugged the Slug Chute and loaded 43 Slugs and the last 5 hung in the slug Chute, first Noticed the Slugs hanging 18 feet down from the top of 3rd Level.

2. Continued with Patrol Work

3. Finished with F.I. scrubber stills, boiling down in Room-10, Finished with first Part

Of F.I. Run in Room-10 and delivered to Packing in three 450 ml Shots.

4. Continued Evaporating.

5- Unloaded Chicago truck three ~~Drum~~ Pots, to H-7 and 7 Drums ~~[illegible]~~ were Dumped at the burial Ground.

7/3/53 ① Continued evaporating & patrol work.
4-12 ② Boiled down FI, sampled F-1, and
Schaich started Rm 10. 1st cut is in sterilizer and is to be taken up as product in 450 ml. The 2nd cut is in pH vessel but is very acid. Have added 30 ml. NaOH to pH vessel but still acid. PB wants this & the rest of the run left in sterilizer until Mon.
③ Unplugged slug chute, added 1st part of coating removal and loaded all but one slug. Ready to come down at shift change.

7-4-5
8-4
R.L.

7/4/53 ① Finished FI run. Took first cut up as
12-8 product #4 and left the other cuts in the
Lampton sterilizer after adding caustic to make them basic. Sampled F-2.
② Continued patrol work.
③ Continued evaporating.
④ Finished loading last slug and started coating removals. Starting third coating removal at shift change.

7/4
Sch

Run status - A5 carbonate M10 - batch caustic.
A1 3rd coating removal

⑤ Returned pile bldg tongs and brought slug basket to D bld. — in decont. Cleaned and stored charger cranks and harpoon. Scrubbed the 3rd level hot spots. 3rd level has not been smeared.

7-4-53
8-4
R.L.N.

1- had 3rd Level, Part of Second & First Levels including Stairways Smeared all Smears Were hot up to 38,000 Counts, Scrubbed With old dutch and Moped dry Ready to Smear again.

2. Cleaned the Slug Changer and basket Stowed in front of Cell-B.

3. Cut the Evaporator back to 200 Gal/Hr at the start of first Dissolving.

4. Continued With Patrol Work

5- Rd Ld Run Status. A-1 First Dissolving
A-5 Batch Na_2CO_3
M-1 Caustic Solution for M-10
T-9 130# Water for A-1 dilution

6- The fish tapes used in A-1 Slug Chute are in versene solution Decon. Room.

7. had Inst's Repair the A-1 Vacuum Instrument it had a Plugged line.

7/4/53 ① W16 float chain dropped off but finally got it back in place & operating. It is about 20 gals. low.
Schaich

② Washed down Cottrell after batch A.

③ Called Barringer when his pot quit filling

He said to shut it off.

(4) Continued evaporating & patrol work.

(5) W.S. Phillips called that he could not make 12-8. E.L. Maples doubling over.

(6) Dumped acids.

(7) H.P. smeared "D" Bldg. Plenty of hot spots. Cleaned spots on 3rd level. 1st & 2nd still hot.

(8) 1MA — 10,900 G's S.T.

(9) Run status: A1 — Batch B dissolving
A5 — " Na_2CO_3
A11 — 15% HNO_3 filtering thru CF-1.
A17 — Batch A
M-1 — M.T.
A8-A9-A6 — M.T.
CF-1 & CF-2 — Dirty

Used both filters at the same time to crud filter batch A.

7-5-53
12-8
R.L.N.

1. Cleaned 2nd level and smeared, 3rd level has not been smeared 1st level has not been cleaned.
2. Manholes #3 + 3500 sample equipment not working #3 trouble in gear box, #3500 motor not running.
3. Continued with patrol work
4. Shut the evaporator down at 7 15 AM to use the operator on Ra La Run, [redacted]
5. Ra La Run Status
A-1 Batch C Dissolving.
A-9 Batch B Ready to filter at 8 05 AM

A-8

A-11 3" heel ??

A-17 MT

A-5

A-6

Crud filters Clean.

6. 1MB Results Approx. 8900 C's S.T. being Re run

8WMA 45 C's S.T.

7/5/52 ① Continued Patrol work.

8:4 ② Continued evaporating. pH of WS dropped schaich to 5. Called M.R. and they have been sending strong acid wastes. They are going to send some caustic. Took sp. C.T. at 11 AM 1540 c's/min. Lowered steam and added more caustic to Evap + EFT. Sp. C.T. in lab. at 3 PM. — 1600 c's/min

③ Added resin to column and started HNO_3 titration. HNO_3 is backing into Feed Tank Verbal instructions to 4-12.

④ Jetted R.C. tanks & sump.

⑤ 2nd level is clean. Scrubbed and smeared 1st level. It is O.K. Smeared 3rd level but it is still hot.

⑥ 1MC - 9,720 c's 8WMB - 90 c's S.T.

⑦ Run Status: M-1 - Batch NaOH

T8 - H_2SO_4 A-1 - Batch D dissolving

T-9 - Dilut. H_2O A6 - 1 " B neut.

M.W. - H_2O A8 - " C sampled

A9 - A17 - A5 - MT

(8) Drained A16 pot three times this shift.

7/5/53 (1) Continued patrol work.
4-12 (2) Washed down cottrell after batch D dissolving
Lampton (3) Scrubbed hot spots on 3rd level of D bldg. have not been smeared yet.
(4) Finished Titration and regeneration of resin in column. Made a backwash check for leak in to Feed tank twice for 30 min. and nothing went to F.T..
(5) The results of IMD are high because the L.L. of A1 is of results approx 10,000 [illegible].
A 8WMC - 132 curies approx.
(6) Run status.
A1 — Batch E dissolving.
A11 A8, A5, A6 — MT.
M1 — Batch carbonate.
Batch D - Filtering A9 to A17.
(7) Special C.T. at 8:30 PM - 393 cl.

7/6/53 1- Diluted and sampled IME Results 7977 C's S.T.
12-8 8WMD 118 C's S.T.
R.L.H. 2- Washed down Cottrell after Batch E Dissolving the Pump seal Drain valve Ext. handle is broken at a weld between valve and block bernicade
3 Ra La Run Status
A-1 IME Sampled
A-5 MT
A-6 Neutralized Batch D

7/6
8-
Sch

A-9 Second metathesis filtering to A-17.

A-8 HNO_3 & water to receive the metathesis

A-11 3" heel ?? Probably condensate.

A-17 first metathesis and receiving 2nd at S.C.

4- The A-5. L.L. & SP.GR. Ring balance Inst. has a leak in the Inst. One of the bubblers was raised to get a accurate reading of L.L. by Inst's didn't have time to trace down the leak

5. Continued Evaporating but slow ~170 Gal/hr all it would do, Jetted the sump and re-filled.

6. Continued Patrol Work.

7- Drained A-16 Pot three times.

8 brought down Pile units.

9. 3rd level 3026D ready for resmear

7/6/53 8-4 Schaich

① Both stills went dry. Could not find source of leak. started up south still

② Restocked "D" Bldg cabinet.

③ Continued patrol & evaporator.

④ Product truck came in and was sent to carpenter shop to shore-in water drum.

⑤ Opened 5 bottles of fuming HNO_3.

⑥ Run status: 9M HNO_3 going thru column

MW - HCl waste sampled.

A11 - 8WCW

A5, A17, A9 - MT

A6 - 8WMD

A8 - R.C. waste sampled

⑦ Instruments working on A5 & A6 ring balances. Zeroed P.E. tank.

(8) FTP - 37,500 c's S.T.
F.T. pH - 2,700 c's S.T.

7/6/52 (1) Continued Patrol work.
4-12 (2) Continued evaporating. Special C.T. sample
Lampton in lab.
(3) Instruments zeroed L.L. and SpG. of A5 instrument. Still working on A6 instrument at shift change. All air lines were plugged solid
(4) Product truck parked at D bldg.
(5) Stills have not filled up yet at D Bld.
(6) Run 53 status.

M.W. tank. — H_2O and MWFN
Holdup. " — $NaNO_3$ Resin elution.
ISO. tank — MT.
P.E. " — Product fuming HNO_3.
F.T. — MT.

(7) Run 53A status.

A1 — Batch F dissolving
A11 — Batch E "
A8 — Metathesis Recovery waste.
A17 — MT
A9 — MT
M1 — Batch Caustic.

(8) W16 jet would not shut off. Electrician repaired.

7/7/
12-8
R.L.N

7/7/
8-
Schu

1- Big truck out of Gas at the Evaporator.

7/7/53 2. Brought down 2 Sulfur Can.

12-8 3- Continued With Patrol Work

R.L.N. 4- 8WM Metathesis Recovery Results 298 C'S S.T.

5- Run # 53 status P.E. Tank Sampleing P.E. # 2

Iso. Tank $NaNO_3$ from Column

M.W.F.N. is in A-8.

6 Run # 53-A

A-1 Batch G Dissolving.

A-5 MT

A-6 Neutralized Batch Metathesis Recovery.

A-8 M.W.F.N. from Run # 53

A-11 Batch F

A-17 8 W.M.E. Not sampled.

Crud Filters Clean.

7- Sample in the Lab on 1.5 M NaOH and 1.0 M HCL.

7/7/53 ① P^{32} extractions to take up. Time ??

8-4 ② Added 8WFN to Batch F and extracted.

Schaich Added extra H_2SO_4 to this batch.

③ Sent Metathesis Recovery Wastes to W16

④ Electrician repaired 3rd level crane.

⑤ Resampled PE-2. Same result. - 20,000 cts

⑥ Made up following solutions:

3M $NaNO_3$ - 3.02M 3M HNO_3 - 3.01M

Resampled 1.5M NaOH - 1.11M

⑦ Instruments working on A6 ring balance.

⑧ Run status: Prod. in cone

P.E. - P.E. Rinse heating

A5 - 8WME neut. A9, A6, A17 - MT
A8 - 8WMF sampled. C.F.s - clean
P.F.-2 - Recovery Prod. M-1 - Na_2CO_3
⑨ Continued evaporating & patrol.

7/7/53 ① Continued evaporating.
4-12 ② Found two leaks into WC15. Semi works.
Lampton and room A33-4500 bldg.
③ Took up Run 53 and loaded on truck ready to go to Los Alamos. Driver has been called.
④ Run 53A status
PF-2 — Recovery Product
A1 — MT
A5 — 8WMF Neut.
A6 — 8WME Neut.
A11 + A17 - Crud filtration. Batch G.
P.E. tank — PE Rinse.
⑤ Butted up 1.5 M NaOH sample in lab.
⑥ Continued patrol work.
⑦ Took up P^{32} extraction from E-1 at 10:55, sampled, and started reextraction.

7-8
BLE

1. Took up P^{32} Extraction E-2 at 2:00 Am and
7-8-53 boiled down.
12-8 2. Product truck left the Bldg. at 12:25 A.M.
R.L.H 3. Continued with Patrol Work.
4. Cleaned the hot spot on first level and hosed off the rest of floor.

5- 1 MG Results 6873 C'S. S.T.

6- 1.5 M NaOH 1.48

7- Continued Evaporating 30" LL 25# steam.

8- Backwashed the Resin from column and added 3.7 Liters fresh Resin Water from the Feed tank would only go at 100 ML/MIN until the 20 second Backwash step was completed, we got a LL Rise in Feed tank on this step so drained Feed tank back down to zero.

9- Started a Resin re-generation on third level ready for the remainder of 5 L H_2O after NaOH 1st cycle

10- Run 53 Status

A-1 MT

A-5 Batch Na_2CO_3

A-6 MT

A-9 First Metathesis Cooling at 8 00/Am.

A-8 - MT.

A-11 8 mMG

A-17 MT.

11- P^{32} Results Extract from E-1 2070 M.C. S.T.

E-2 2603 M.C. S.T.

12- 8 m.M.G. 88 C'S S.T.

7-8-53

BLEVINS.

1. INST. MECHANIC CONTD. REPAIR WORK ON A6 RING BALANCE
2. RAN THE BIG STEAM ENGINE FOR 4 HRS.
3. DECONTAMINATED ALL SAMPLE CARRIERS EXCEPT ONE WHICH IS IN A S.S. BUCKET IN THE DECONTAMINATION ROOM AND READS > 8.0 R/HR THRU THE SOLN.
4. PREPAIRED SAMPLING AREA FOR SAMPLING.
5. 9.0 M HNO_3 RESULTS WAS 9.44 M ADDED 1950 ML

OF H_2O SAMPLE IS IN THE LAB.

6. P^{32} IS BOILING DOWN IN THE CRUDE EVAP. AT SHIFT CHANGE.

7. EVAPORATOR IS RUNNING AT 30" L.L. AND 21# S. PRESSURE

8. RUN STATUS.

A1 – MT

A5 – 8WMG. NEUTRALIZED

A6 – MT

A8 – HNO_3 FOR METATHESIS

A9 – MT

A11 – R.C TANK AND RESIN WASH.

A17. – 8WCW AND 1ST H_2O WASH.

P.EVAP – RUN 53 PRODUCT RINSE

P.FEED – MT

HOLD UP – MT

MAIN WASTE – RESIN REGENERATION.

ISO.TANK – MT.

PF2 – PRODUCT.

ELUATE TANK – 17.0L OF 1.5M NaOH.

9. THE LAST H_2O WASH AFTER METATHESIS STARTED AT 3:45 PM.

10. Continued regeneration of resin.

7/8/53 ① Continued evaporating. Raised steam press
4-12 to 30 lbs.
Lampton ② Continued patrol work.
③ Run 53A status:

A1 – MT
A5 – H20
A8 – Resin Cubicle wastes

7- 9
12-
R.L.

A11 — 8WCW
A9 — A9-PF Rinse.
A17 — MT.
MW Tank — MW HCl E.
Holdup tank — Product elution.
Feed Tank — F.T. Rinse.
PE Tank — Run 53 PE Rinse.

(4) Run Samples
FTP — 1320 curies
FTPH — 30,000 approx.
A9-PF Rinse — 930 curies approx.
FT Rinse — in lab.
Resin Cubicle Waste — in lab.
MW HCl E — in lab.

(5) P^{32} sparging in EV-1 sparging with HNO_3 200 ml to take it up.

(6) Had high air count in 3026C bldg and could not find cause.

1- Continued Evaporating 30-35" L.L. 30-35# steam
2- Continued with Patrol Work
7-9-53 3- Made up 3 M $NaNO_3$ 3.05 Results sample in
12:8 the lab on 0.5 Na Acetate there is enough
R.L.N. of Na Acetate measured out for the Next use.
4- Continued with P^{32} Run, it took 190 ml of 5.N. NH_4OH to ppt. in P-1 after filtration we Couldn't Get the activity off of P-1 disc using .1 N HNO_3 1.5N HNO_3 & 3.0 N HNO_3 all of

this is filtering from S-2 to EV-2, ON P-1 is 20 ML of 1.5 N HCl sparging.

6. Run Status

P.E. tank, filtering Fuming HNO_3 to M.W.

Hold up Tank. $NaNO_3$ & Water From Column.

M.W. receiving, Fuming HNO_3

A-5 Neutralized batch G

A-6 a heel of Water.

A-9 A-9 Rinse

A-8 Waste from cubicle.

A-11 8 uc uc

A 17 MT

7. Sample Results Feed Tank Rinse 1845 C's ST

Resin Cubicle Waste 280 " "

M.W. HClE 83 " "

8. We are out of 5 N NH_4OH at P^{32} hood

7/9
4-
Lan

7-9-53
BLEVINS.
8-4

1. RAN THE OFF GAS AND 4500 AREA STEAM TURBINES 4 HRS.
2. 300B SAMPLE CARRIER SHOE NEEDS BE REPAIRED IT IS TAGGED AND STORED IN CABINET.
3. MAINT. WAS NOTIFIED THAT THE WEST BEARING TO STEAM OFF GAS TURBINE NEEDS TO BE REPLACED.
4. NONE OF THE 300 CUBICLE SAMPLE CARRIERS EXCEPT THE ONE NUMBERED 300 WORKED IN. SAMPLING THE ISO-TANK.
5. SAMPLE RESULTS — PE#2 — 35,682 Curies
   MWFN - 821 Curies MW $NaNO_3$ - 295 Curies.
6. THE PRODUCT IS IN THE P.E. TANK. - THE P.E. TO M.W. JET VALVE IS WIRED CLOSED.
7. ASKED SHARP TO CLEAN THE MASKS TO BE USED IN LOADING OF PRODUCT.

7-10
12-
R.L.

8. FOUND A SMALL LEAK IN ONE OF THE HOT LAB SINKS.

9. CONTD. REGENERATION OF NEW RESIN.

10. P^{32} — 1ST PART OF RUN FILTERING THRU S3.
2ND PART READY TO GO TO S2.

11. ALL WASTES FROM CUBICLE AND A CELL WAS JETTED TO A6

12. ADDED 40 GALS OF H_2O TO A1 & SPARGED — SAMPLE WOULDN'T CIRCULATE.

7/9/53 ① Drained vacuum tanks in bldg 3033.
4-12 ② Put 2-40gal H_2O washes from A1 through
Lampton Tanks to W16. Put 5-5gal. washes through PF-2 and by pass to A8. Cleaned sample blisters. Could not get A1 sampler working by using air and sucking water and HNO_3.
③ Continued resin regeneration.
④ Cleaned all sample carriers and stored except 2 of cubicle samplers.
⑤ Continued patrol work and evaporating.
⑥ Continued with P^{32} run. 1st part in EV-3 2nd part going to S-3 head tank. ~~Seed~~ Third part in EV-1 boiling down. Cleaning P-1 with conc. HCl.
⑦ Instrument repaired A17 L.L instrument.

7-10-53 1-Cleaned off P1 filter, Combined Runs 256
12-8 and 256-1 and took up the Product samples
R.L.N. read 580 MR/HR, Washed out P-2 with 6 N HNO3 and Water Regenerated S-3 280 MC's in the Waste tank.

2- P^{32} Run # 256-2 is all in P-1 except the water washes that normally go through S-1

3- Continued with resin re-generation ready for 3.0 M NaNO3 step #5 last cycle,

4- Made up 3.5 M HCl and 3.0 M NaNO3 both are ok to use.

5- unplugged A-1 sample line.

6- P.E. Tank Temp 22°C L.L. had dropped to 5" built back up to 5.5" with distilled water 7/1 9-

7- One 300 cubicle sampler foot reading 80 MR/HR two fish tapes ~ 4 MR/HR and the slug plunger is still hot in decon room. Lan

8- did not wash down cottrell the recirculating valve looks to be broken in the closed position [redacted]

9. washed the Cottrell down.

7-10-53

Blevins

1. DID ONE CALIBRATION OF TANK A11 USING 40# H_2O EACH INCREMENT ~~AND STARTED A SECOND USING 50# INCREMENT~~ A11-MT.

2. CONTD. DECONTAMINATION OF SAMPLER SHOE WHICH IS IN A-S.S. BUCKET, WITH CITRIC ACID ~70 mr/hr

3. THE FISH TAPES ARE IN VERSENE SOLN 5 AND 20 mr

4. INFLATED THE 22 & 35 FT. LEVEL CRANE TIRES.

5. MAINT. CHECKED THE WEST BEARING TO THE STEAM OFF GAS BLOWER IT ISN'T GETTING ENOUGH GREASE 7-11- 8-4 J.E.F.T

6. MAINT. CHANGED THE BELTS AROUND ON THE BIG ELECTRIC MOTOR (125HP) FOR BETTER FIT.

7. JETTED 1' 1/2" FROM W7 TO W10 11:20AM TO 1:50PM.

8. FINISHED REGENERATION OF RESIN FOR RUN 54

THE NEW SHEET FOR RUN 54 REGENERATION IS ON THE TABLE AT 3rd LEVEL.

9. P^{32} – Run # 256-2 NO LUCK IN DISSOLVING THE PPte.

10. CONTD. WITH EVAP. 35" LL AND 13 # S.P.

11. MOVED ALL SOLN. JUGS FROM 2nd TO 3rd LEVEL.

7/10/53 9-12 Lampton

① Made one calibration of All tank using 30 # increments.

② Ran one cycle of resin regeneration.

③ Continued with decontamination of fish tape and etc. in decontamination room D bldg.

④ Cleaned and installed P-1 vacuum lines at P^{32}. Also cleaned P-1 transfer. vacuum lines. Cleaned nearly all of ppt off of P-1 filter. Conc Hcl in P-1. The rest is in waste vessel.

⑤ Continued patrol work and evaporating.

⑥ Checked PE tank.

7-11-53 12-8 H.B.

1. Checked PE Tank. Temperature remained constant.

7-11-53 8-4 J.E.F. & E.L.M.

① Added 450 ML H_2O TO 300 P.E. TANK, Raised L.L. from 5.2" to 5.5".

7-11-53 1. Checked P.C. tank twice, OK.
4-12 2. High BG up to 20 m/hr in Physic Solids
DCK Bldg, 100 m/hr on 3rd. floor 3026-D.
Washed down Cottrell.
R.W.S. asked that the 12-8 do like wise.
3. The pin in the cottrell pump recirculating line valve is out. But the valve is closed so it actually doesn't matter.

7/13
8-
Lan

7-12-53 12-8 H.B. & W.E.T.
1. Checked P.E. tank.
2. washed down Cottrell.

7-12-53
8-4
J.E.F.T.E.L.M.
(1) Added 350 ML H_2O to 300 P.E. TANK.
(2) Had Power failure At 3P.M. Started up Steam turbines; ALL Electric motor back in service At shift change.

7-13-53 1. THE EVAP. ANTIFOAM PUMP FAILED TAKE EXCHANGED
12-8 IT WITH THE ONE IN THE OFFICE CABINET.
BLEVINS. 2. P.E. RINSE RESULTS – 1,830 Cs 33,802 Cs SHIPPED
3. THE PRODUCT CONE WAS WHITE AT THE TOP 2 OR 3 INCHES AND BLACK FROM THERE TO BOTTOM.
4. THE All STEAM SPARGER WAS TURNED ON AT 5:45 AM WITH HOPES IT WILL CLEAN SOME CONTAMINATION FROM OFF GAS LINES.
5. STARTED UP THE DISTILLED H_2O AND VACUUM PUMPS, IN BLDG. 3054, THAT STOPPED DURING POWER FAILURE SUNDAY.

6. THE PRODUCT LEFT D. BLDG. AT 6:30 AM.
7. STARTED A NEW RUN AT THE EVAP.
8. CONTD. WITH PATROL WORK.
9. HOSED DOWN 1ST LEVEL IN D. BLDG AND HAD H.P. TO SMEAR IT NO RESULTS. AT S.C.
10. BROUGHT THE ISOTOPE CASKET FROM PILE BLDG. TO 3038.

7/13/53 8-4 Lampton

① Cleaned up hot spots on floors of 3026 D bldg. All ok now.
② Made up solutions and continued resin regeneration.
③ Washed down cottrell precipitator to try to lower background at stack.
④ Shut down south still at 3026 D bldg.
⑤ Jetted waste from cubicle tanks and washed them out.
⑥ Took Lagoon readings. #1 — 10 turns & #2 — 3.2'
⑦ Found A8 sparger line reading 10R/hr. Covered with shielding.
⑧ Made a calibration of All tank using 40# increments. It will need another calibration. All is M.T. and dry.
⑨ Continued evaporating - Raised steam press. to 90 lbs.
⑩ Had back up in instrument lines at resin cubicle panel board. Covered with lead shot.
⑪ Continued patrol work.