



UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS

P.O. BOX 8004, SOUTH CHARLESTON, W. VA. 25303

SOUTH CHARLESTON PLANT

DRAFT

August 3, 1978

Mr. Peter Schaul
U. S. Environmental Protection Agency
Region III
6th and Walnut Streets
Philadelphia, Pennsylvania 19106

Subject: Evaluation of Leak ~~Leak~~ ^{Leak} ~~Detection~~ ^{Leak} Program,
Compliance ~~Detection~~ Program,
UCC, South Charleston, W.Va.
CDS No. 50-0760-10001

Dear Mr. Schaul:

The requested information which was not readily available during your inspection of our facilities is hereby submitted.

1. Secondary control device burner residence time is 3.1 seconds.
2. Total flue gas throughput of secondary control device burner is 2.19×10^6 CFH at 2000 F. Gas flow rate range at SVR Unit, ducted to the secondary control device is 400 - 600 SCFH _(VCM range) VCM range is 16 - 26 lb/hr. (4 grab samples/flow measurements)
3. Concentration of VCM after the secondary control device is 0.13 ppmv ^{continuous monitor} (geometric mean, 10 - 8 hr. shifts which includes all normal operating conditions, e.g., receiving VCM from storage)

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4. Gas standards (cylinders) used for calibration of our continuous monitoring system are prepared from certified vinyl chloride purchased from our suppliers. Before use each standard is analyzed in our laboratory by comparison to a calibration curve freshly prepared from three gas mixture standards (5 , 10, and 50 ppm vinyl chloride in nitrogen cylinders, certified by the gas manufacturer).
5. Continuous monitor sampling point locations in relation to floor level and equipment in vinyl chloride service are illustrated in the enclosed drawings.
6. A series of three (3) GC columns are used in our Model 1200 VFA continuous monitor:
 - a. 20% Igepal CO-880 on Chromosorb P
AW DMCS (60/80 mesh) 1/8 in. O.D.
SS x 18 in.
 - b. Same as (a) except for length, i.e.,
4½ ft.
 - c. 20% Octoil "S" on Chromosorb P
AW DMCS (60/80 mesh), 1/8 in. O.D.
SS x 3 ft.

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Please let us know if there are further questions.

Very truly yours,

William C. Young

WCY/pl

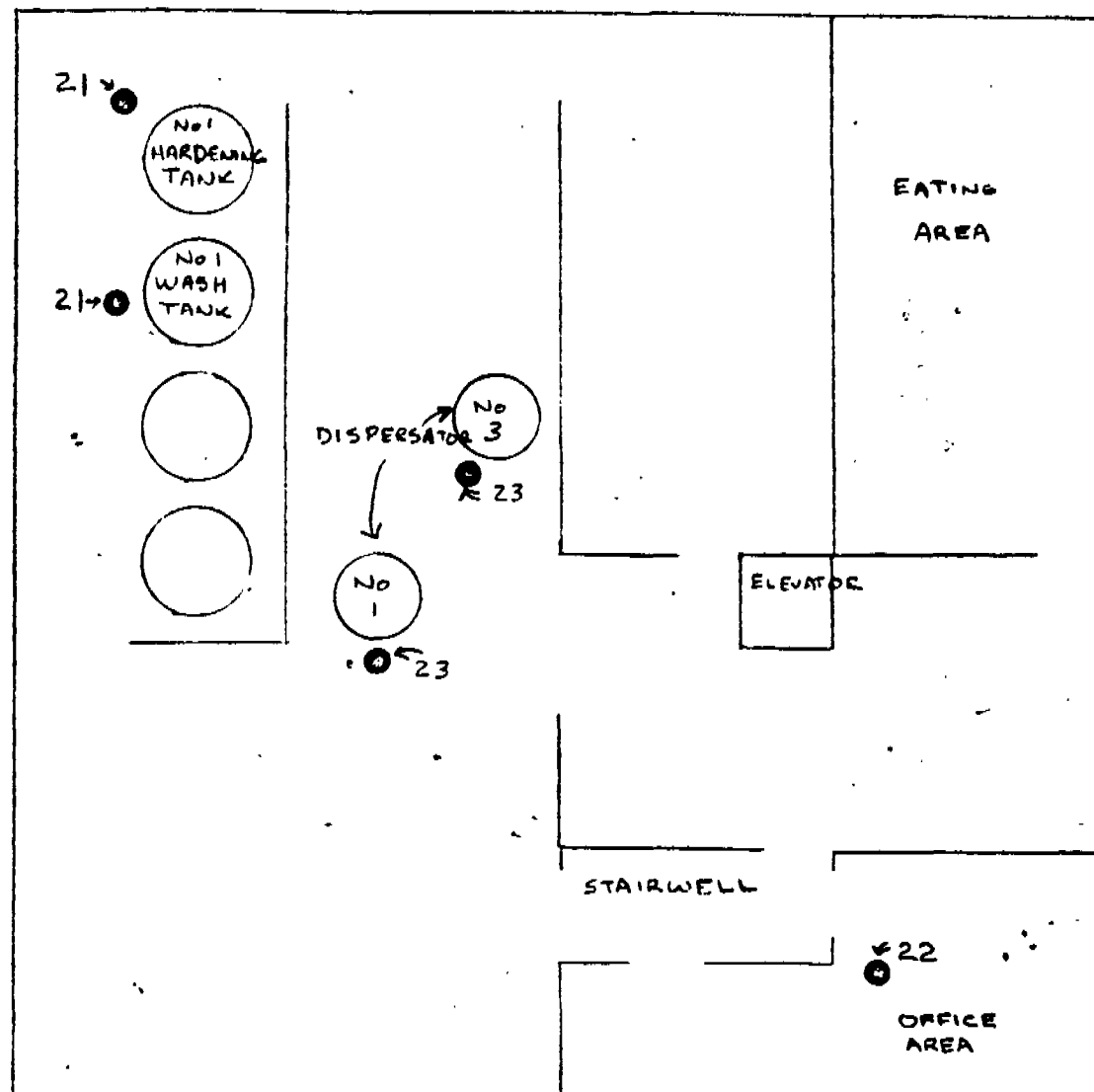
Enclosure

cc: Mr. William Battye
GCA/Technology Division
Burlington Road
Bedford, Massachusetts 01730

J.L. Worstell
JCC

UCC 104253

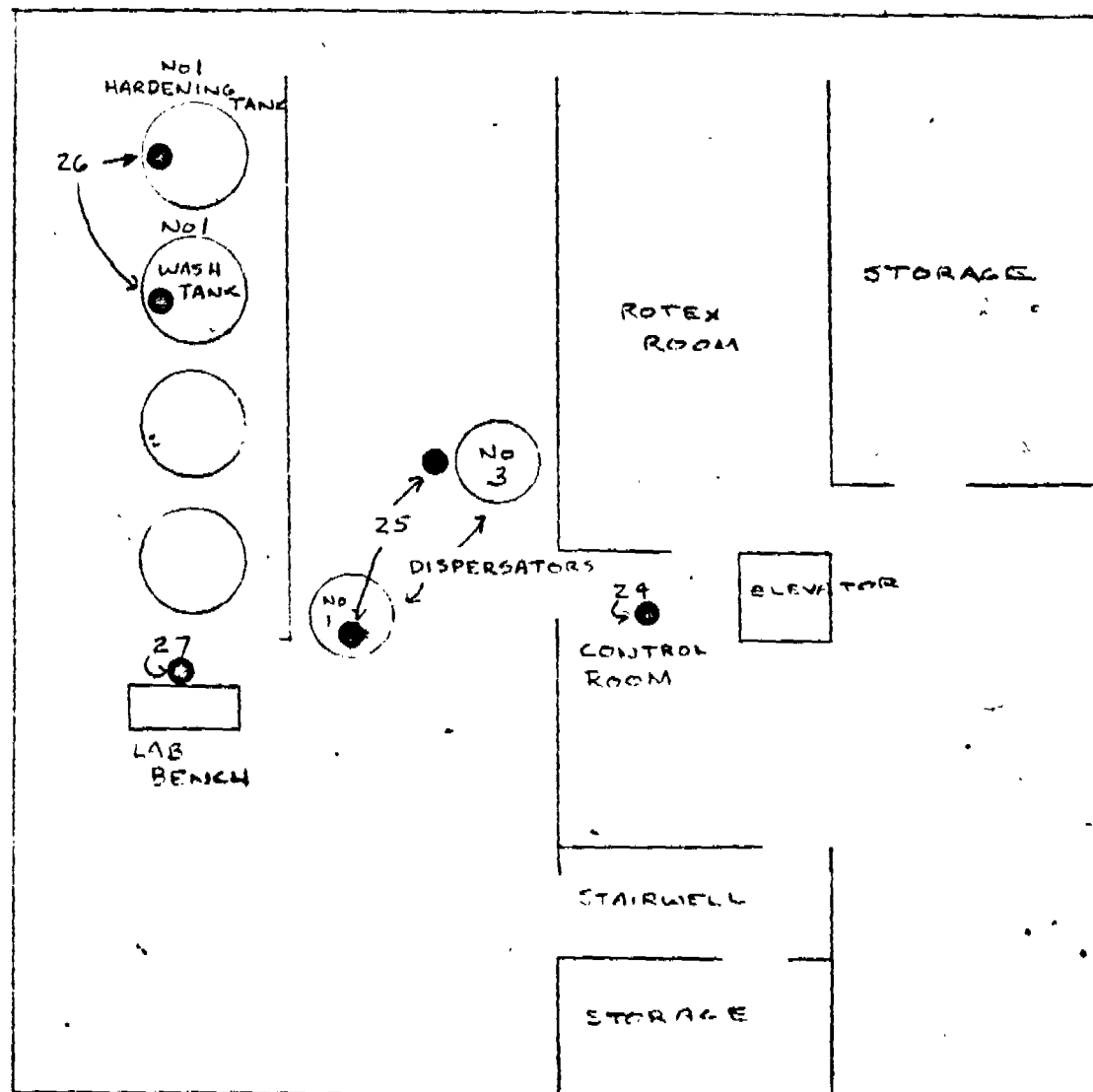
MONITOR POINT LOCATIONS, BUILDING 152
2ND LEVEL



MONITOR POINT 28 - BETWEEN 2709 + 2710 TANKS
" " 31 - AT POWER HOUSE

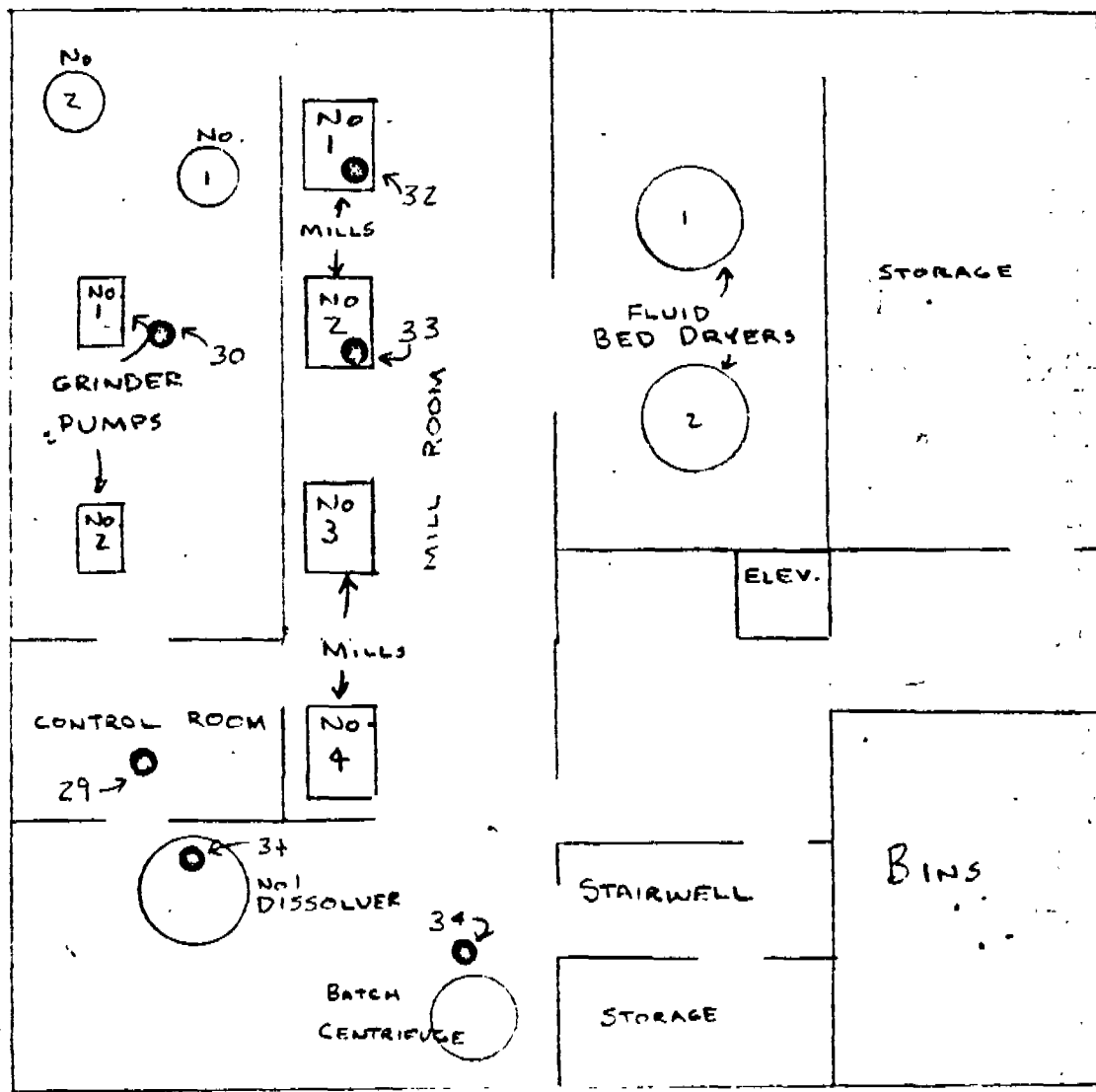
UCC 104254

MONITOR POINT LOCATIONS, BUILDING 152
3RD LEVEL



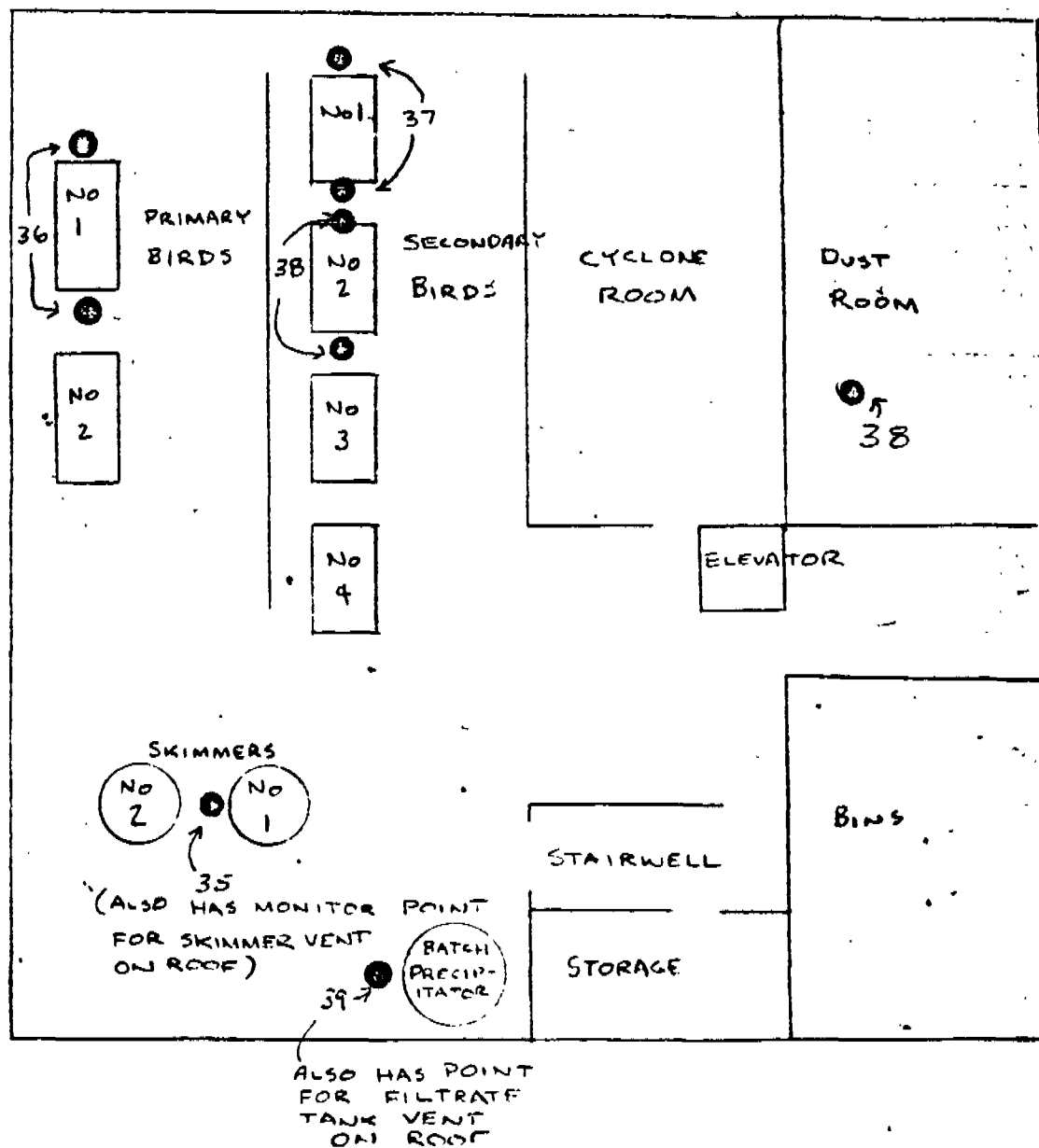
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MONITOR POINT LOCATIONS, BUILDING 152
4TH LEVEL



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MONITOR POINT LOCATIONS, BUILDING 152.
5TH LEVEL



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11,532,200

VINYL CHLORIDE TANK CAR UNLOADING

- 1 Centrifugal Pump
- 2 Compressors

GENERAL NOTES

THESE DRAWINGS ARE TO BE USED IN LOCATING THE DISCHARGE POINTS OF THE TRENCHES, DRAINS, SUMPS, ETC. THE DRAWINGS ARE NOT TO BE USED FOR FIELD WORK IN LOCATING EXACT UNDERGROUND POSITION OR ELEVATIONS OF THE SEWERS.

LEGEND

- P = PUMP
- QH = OVERHEAD LINE
- = SURFACE DRAIN
- = CONTAMINATED SEWER MANHOLE
- = CONTAMINATED SEWER
- = SANITARY FACILITIES
- = DUMPSTER
- = CLEAN SEWER
- = CLEAN SEWER MANHOLE

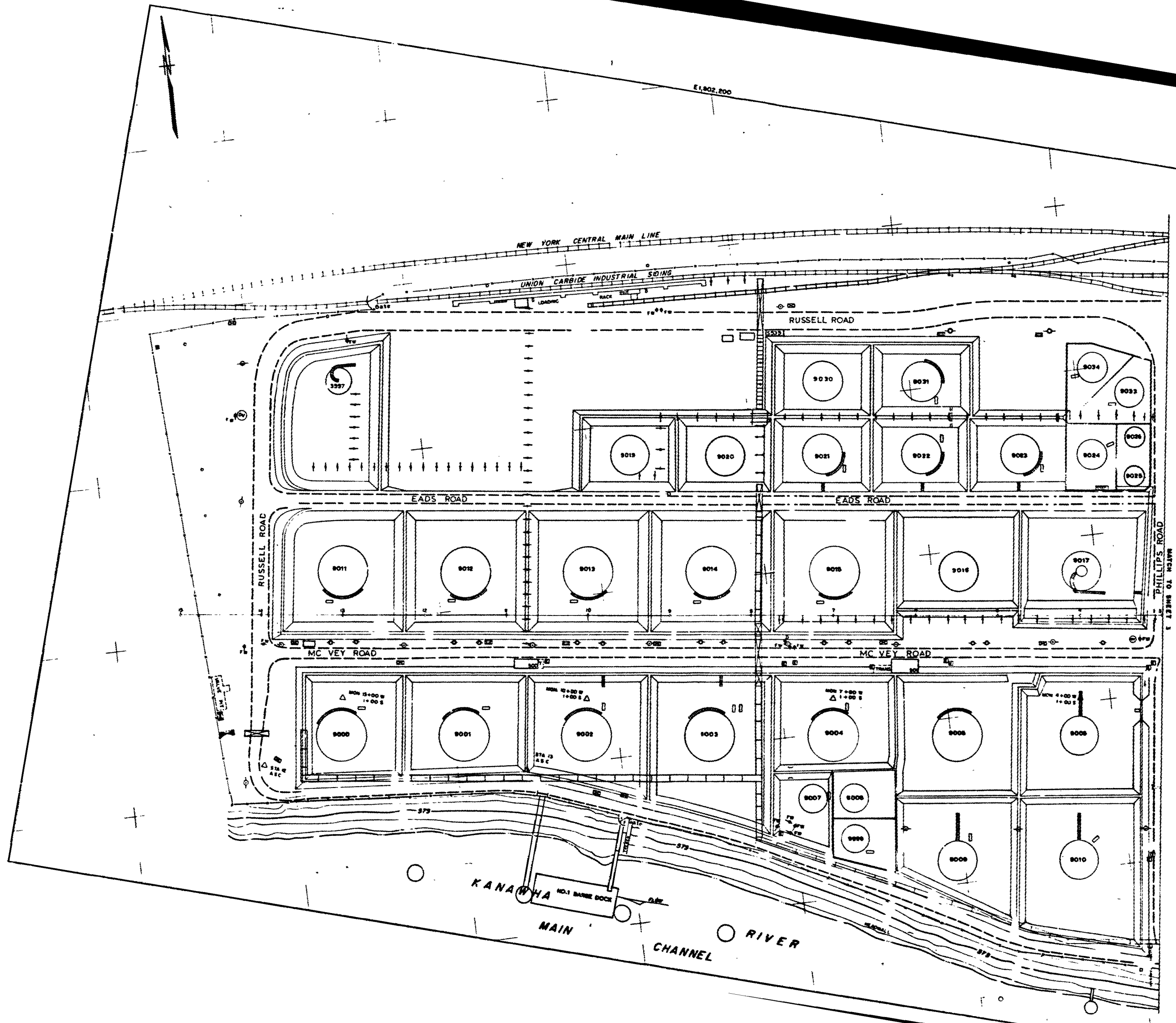
VINYL CHLORIDE STORAGE TANK

- 3 Centrifugal Pumps
- 1 Refrigeration System
- 1 Compressor

UNION CARBIDE
NORTH CHARLESTON
BULK TERMINAL
VINYL CHLORIDE
MONITORING POINTS

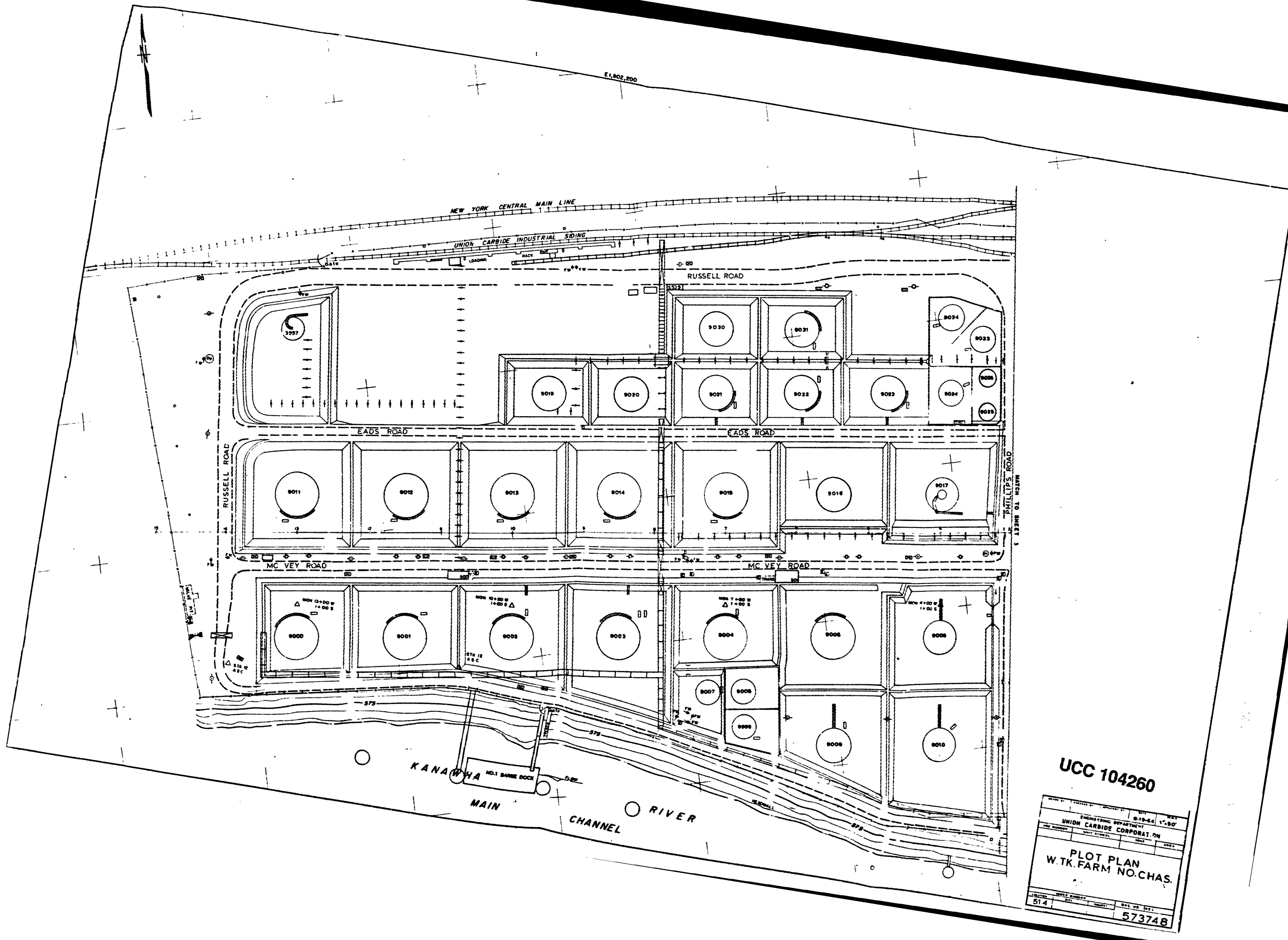
REVISED 6-25-73 MEP			
DESIGNED BY PHILLIPS	CHECKED BY R. EADS	DATE 8-15-64	SHEET 1 OF 2
ENGINEERING DEPARTMENT UNION CARBIDE CORPORATION			
PROJECT NUMBER 514	UNIT SYMBOL	DATE	APP'D
PLOT PLAN W TK. FARM NO. CHAS. CONTAMINATED & CLEAN SEWER ROUTING			
PROJECT NUMBER 514	DATE	PROJECT	573748

UCC 104258



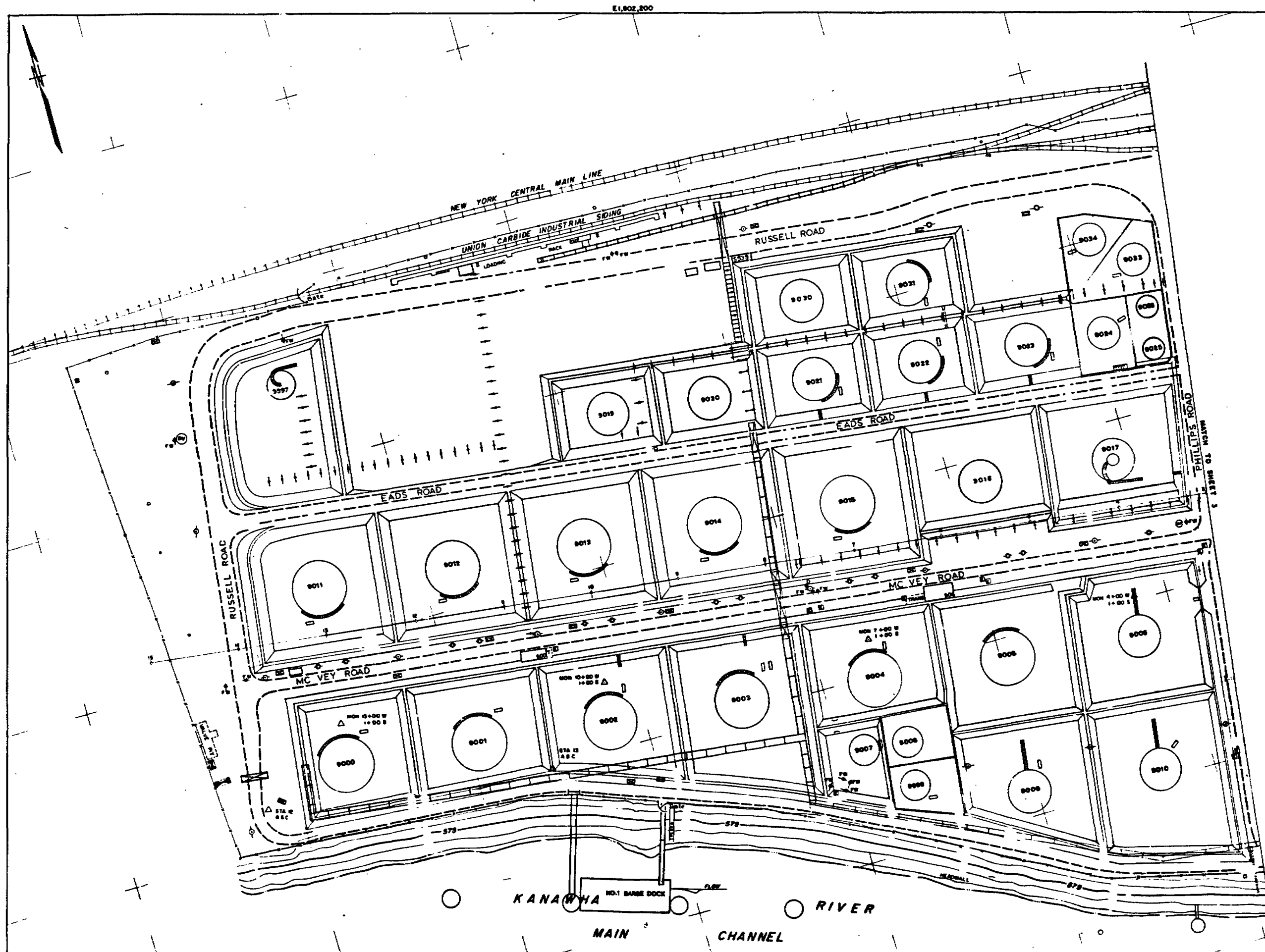
UCC 104259

DATE	8-19-64	SCALE	1"=50'
ENGINEERING DEPARTMENT			
UNION CARBIDE CORPORATION			
PROJECT			
PLOT PLAN			
W. TK. FARM NO. CHAS.			
DESIGNED	514	CHECKED	573748



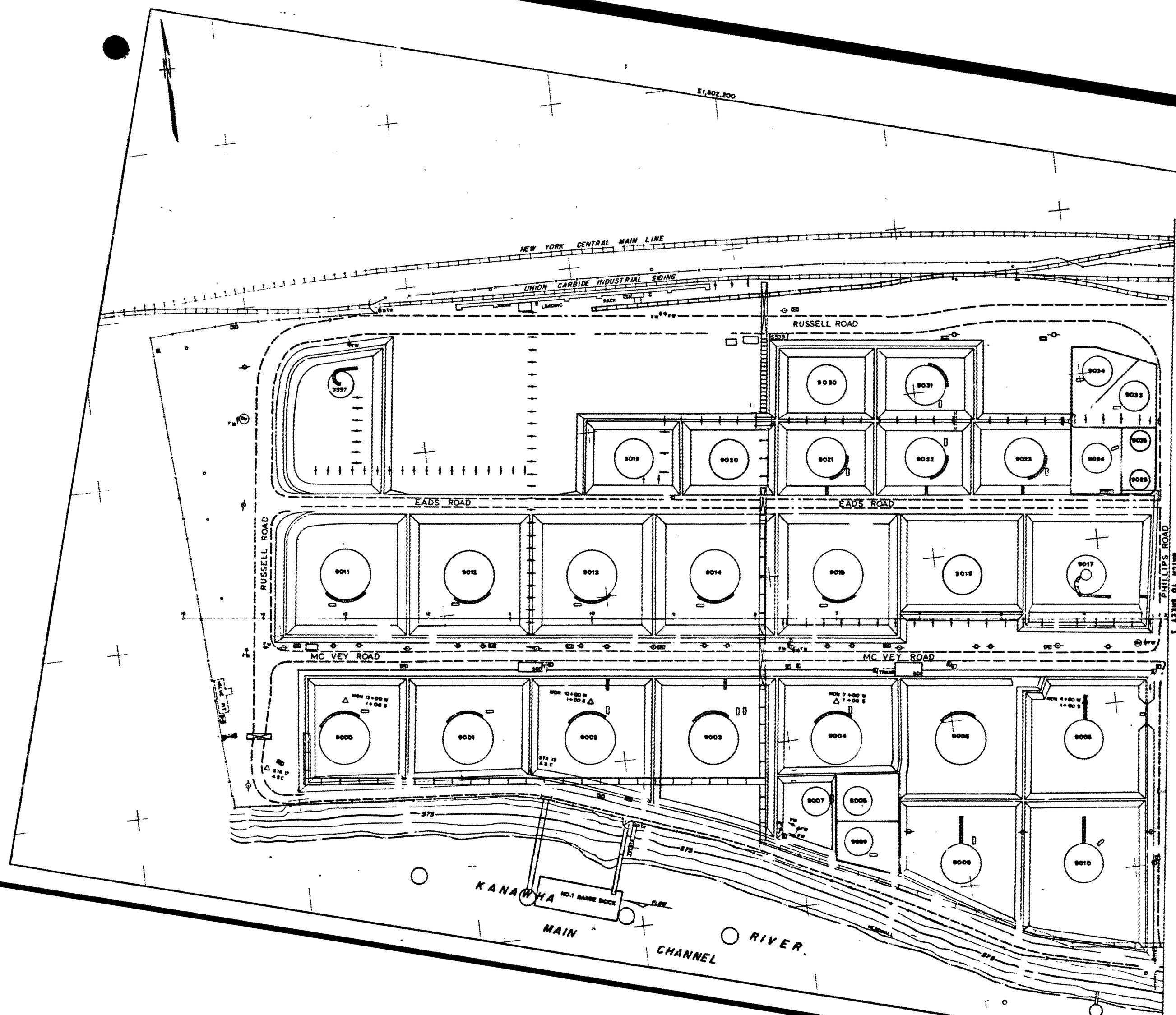
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DATE	8-19-64	BY	W.T.K.
ENGINEERING DEPARTMENT	UNION CARBIDE CORPORATION		
PROJECT	PLOT PLAN W.T.K. FARM NO. 4		
DATE	8-19-64	BY	W.T.K.
514	573748		



UCC 104261

DATE	8-19-64	SCALE	1"=50'
ENGINEERING DEPARTMENT			
UNION CARBIDE CORPORATION			
JOB NUMBER	573748	DATE	8-19-64
PLOT PLAN			
W.T.K. FARM NO. CHAS.			
514			573748



UCC 104262

DATE	8-19-64	SCALE	1"=50'
ENGINEERING DEPARTMENT			
UNION CARBIDE CORPORATION			
PLOT PLAN			
W.T.K. FARM NO. CHAS.			
PROJECT	574	SHEET	573748

~~wey~~
Avg.

0.05

~~18th~~

0.14
26th

0.1
27th

0.0
28th

over-all
average
arithmetic

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0.176

0.213

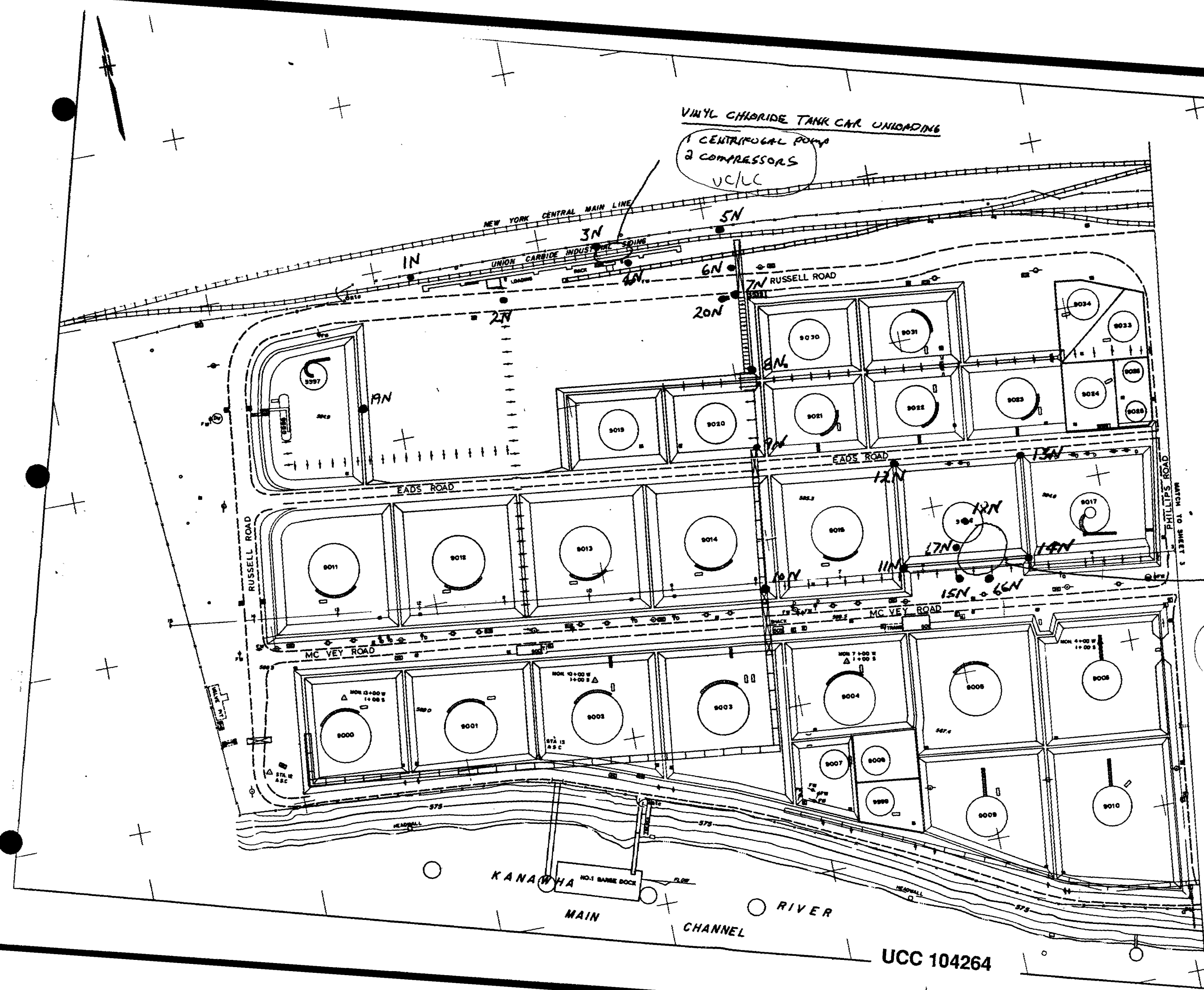
120 data points

G=0.135

0.159

0.055

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VINYL CHLORIDE TANK CAR UNLOADING
 1 CENTRIFUGAL PUMP
 2 COMPRESSORS
 VC/LC

GENERAL NOTES
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 IN LOCATING THE DISCHARGE POINTS
 OF THE TRENCHS, DRAINS, SLUMPS, ETC.
 THE DRAWINGS ARE NOT TO BE USED
 FOR FIELD WORK IN LOCATING EXACT
 UNDERGROUND POSITION OR ELEVATIONS
 OF THE SEWERS.

LEGEND
 P: PUMP
 OH: OVERHEAD LINE
 S: SURFACE DRAIN
 VC/LC: VINYL CHLORIDE STORAGE TANK

3 CENTRIFUGAL PUMPS
 1 REFRIGERATION SYSTEM
 1 COMPRESSOR
 VC/LC

UNION CARBIDE
 NORTH CHARLESTON
 BULK TERMINAL
 VINYL CHLORIDE
 MONITORING POINTS

REVISED 6-25-73 HER			
DESIGNED BY	DRAWN BY	CHECKED BY	DATE
PHILLIPS	READS		8-19-64 11:30
ENGINEERING DEPARTMENT UNION CARBIDE CORPORATION			
JOB NUMBER	DATE	BY	DATE
PLOT PLAN W.K. FARM NO. 4 CHAS. CONTAMINATED & CLEAN SEWER ROUTING			
APPROVED	DATE	BY	DATE
51.4			573748

UCC 104264