

## CASE 3:

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                        PESTAN
                        version 4.0, 1992.

Developed by :

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Title: Valencia Aldaia

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Solubility (mg/l) .....: 0.14000E+01
Recharge rate (cm/hr).....: 0.51400E-02
Sorption constant (cc/g).....: 0.25560E+01
Saturated water content .....: 0.43500E+00
Solid-phase decay (/hr) .....: 0.63000E-01
Liquid-phase decay (/hr) .....: 0.10000E-02
Curve coefficient .....: 0.49000E+01
Bulk density (g/cc).....: 0.13350E+01
Dispersion coefficient (cm^2/hr).....: 0.60000E-01
Saturated hydraulic conductivity ....: 0.44200E+01
Minimum depth (cm).....: 0.00000E+00
Maximum depth (cm).....: 0.40000E+03
Minimum time (day).....: 0.00000E+00
Maximum time (day).....: 0.80000E+04
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For application 1 the active ingredient (ai) applied is 0.300E+01 kg  
ai/ha,  
and has been applied 0.000E+00 days prior to recharge

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Results
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Projected water content .....: 0.257E+00
Pore water velocity [cm/hr] .....: 0.200E-01
Pollutant velocity [cm/hr] .....: 0.140E-02
Length of pollutant slug [cm] .....: 0.584E+01
Mass decayed prior to recharge [kg] .....: 0.000E+00
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Time = 0.50E+02 (days)

Depth [cm]	Cw [mg/l]	Cs [mg/kg]	Ctot [mg/l]
4.000	0.29E+00	0.75E+00	0.11E+01
40.000	0.00E+00	0.00E+00	0.00E+00
80.000	0.00E+00	0.00E+00	0.00E+00
120.000	0.00E+00	0.00E+00	0.00E+00
160.000	0.00E+00	0.00E+00	0.00E+00
200.000	0.00E+00	0.00E+00	0.00E+00
240.000	0.00E+00	0.00E+00	0.00E+00
280.000	0.00E+00	0.00E+00	0.00E+00
320.000	0.00E+00	0.00E+00	0.00E+00
360.000	0.00E+00	0.00E+00	0.00E+00
400.000	0.00E+00	0.00E+00	0.00E+00

# MASS BALANCE RESULTS

Pollutant remaining in liquid-phase (kg) = 0.166E+00  
 Pollutant remaining in solid-phase (kg) = 0.221E+01  
 Total mass of pollutant remaining (kg) = 0.238E+01  
 Liquid-phase decay of pollutant (kg) = 0.208E+00

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Time = 0.10E+03 (days)

Depth [cm]	Cw [mg/l]	Cs [mg/kg]	Ctot [mg/l]
4.000	0.44E+00	0.11E+01	0.16E+01
40.000	0.00E+00	0.00E+00	0.00E+00
80.000	0.00E+00	0.00E+00	0.00E+00
120.000	0.00E+00	0.00E+00	0.00E+00
160.000	0.00E+00	0.00E+00	0.00E+00
200.000	0.00E+00	0.00E+00	0.00E+00
240.000	0.00E+00	0.00E+00	0.00E+00
280.000	0.00E+00	0.00E+00	0.00E+00
320.000	0.00E+00	0.00E+00	0.00E+00
360.000	0.00E+00	0.00E+00	0.00E+00
400.000	0.00E+00	0.00E+00	0.00E+00

# MASS BALANCE RESULTS

Pollutant remaining in liquid-phase (kg) = 0.152E+00  
 Pollutant remaining in solid-phase (kg) = 0.202E+01  
 Total mass of pollutant remaining (kg) = 0.218E+01  
 Liquid-phase decay of pollutant (kg) = 0.398E+00

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Time = 0.15E+03 (days)

Depth [cm]	Cw [mg/l]	Cs [mg/kg]	Ctot [mg/l]
4.000	0.42E+00	0.11E+01	0.15E+01
40.000	0.00E+00	0.00E+00	0.00E+00
80.000	0.00E+00	0.00E+00	0.00E+00
120.000	0.00E+00	0.00E+00	0.00E+00
160.000	0.00E+00	0.00E+00	0.00E+00
200.000	0.00E+00	0.00E+00	0.00E+00
240.000	0.00E+00	0.00E+00	0.00E+00
280.000	0.00E+00	0.00E+00	0.00E+00
320.000	0.00E+00	0.00E+00	0.00E+00
360.000	0.00E+00	0.00E+00	0.00E+00
400.000	0.00E+00	0.00E+00	0.00E+00

# MASS BALANCE RESULTS

Pollutant remaining in liquid-phase (kg) = 0.143E+00  
 Pollutant remaining in solid-phase (kg) = 0.190E+01  
 Total mass of pollutant remaining (kg) = 0.205E+01  
 Liquid-phase decay of pollutant (kg) = 0.586E+00

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Time = 0.50E+03 (days)

Depth [cm]	Cw [mg/l]	Cs [mg/kg]	Ctot [mg/l]
4.000	0.86E-01	0.22E+00	0.32E+00
40.000	0.52E-02	0.13E-01	0.19E-01
80.000	0.00E+00	0.00E+00	0.00E+00

120.000	0.00E+00	0.00E+00	0.00E+00
160.000	0.00E+00	0.00E+00	0.00E+00
200.000	0.00E+00	0.00E+00	0.00E+00
240.000	0.00E+00	0.00E+00	0.00E+00
280.000	0.00E+00	0.00E+00	0.00E+00
320.000	0.00E+00	0.00E+00	0.00E+00
360.000	0.00E+00	0.00E+00	0.00E+00
400.000	0.00E+00	0.00E+00	0.00E+00

#### MASS BALANCE RESULTS

Pollutant remaining in liquid-phase (kg) = 0.874E-01  
 Pollutant remaining in solid-phase (kg) = 0.116E+01  
 Total mass of pollutant remaining (kg) = 0.125E+01  
 Liquid-phase decay of pollutant (kg) = 0.164E+01

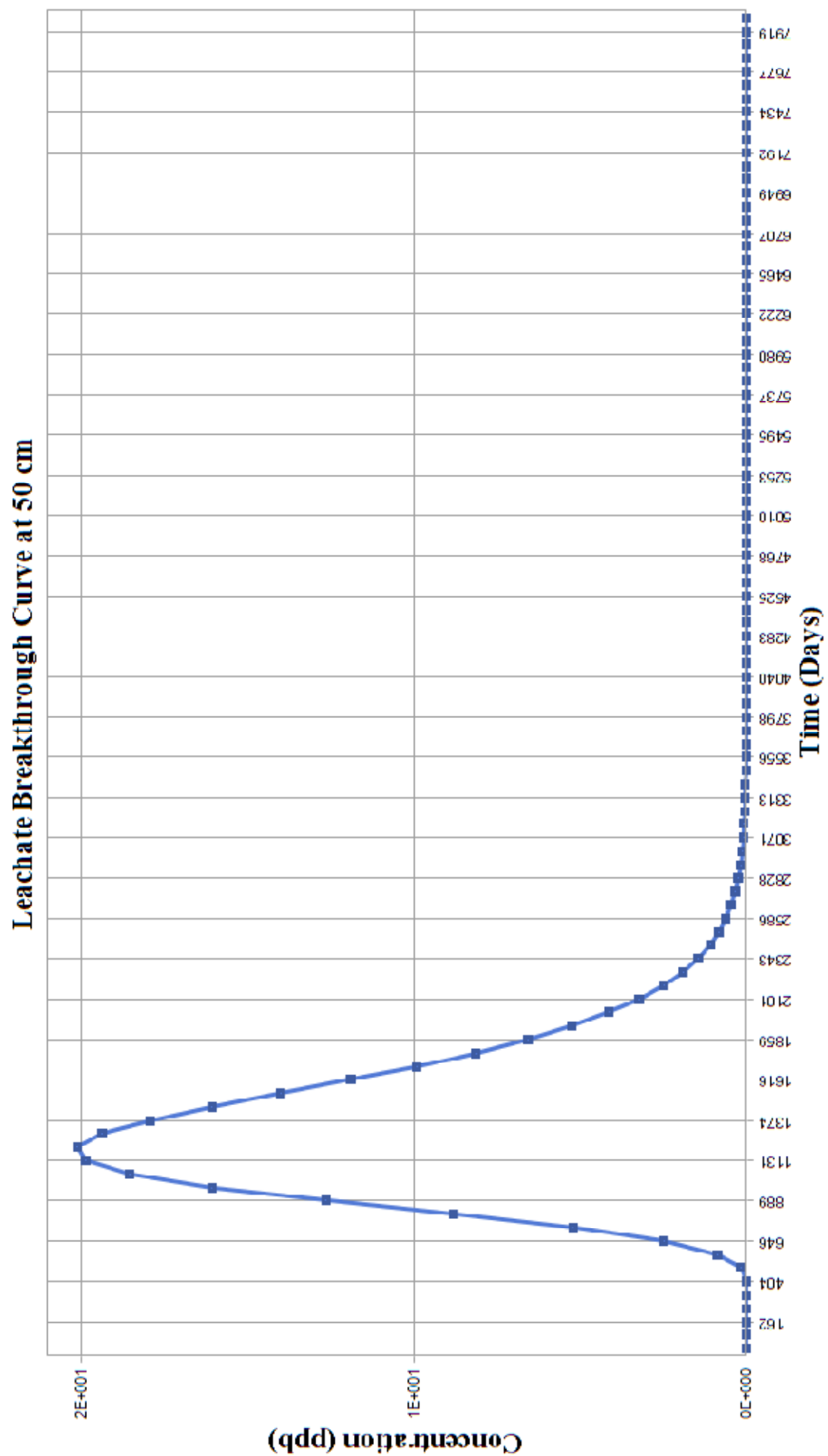
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Time = 0.20E+04 (days)

Depth [cm]	Cw [mg/l]	Cs [mg/kg]	Ctot [mg/l]
4.000	0.64E-04	0.16E-03	0.23E-03
40.000	0.27E-02	0.70E-02	0.10E-01
80.000	0.42E-02	0.11E-01	0.15E-01
120.000	0.12E-03	0.32E-03	0.45E-03
160.000	0.71E-07	0.18E-06	0.26E-06
200.000	0.00E+00	0.00E+00	0.00E+00
240.000	0.00E+00	0.00E+00	0.00E+00
280.000	0.00E+00	0.00E+00	0.00E+00
320.000	0.00E+00	0.00E+00	0.00E+00
360.000	0.00E+00	0.00E+00	0.00E+00
400.000	0.00E+00	0.00E+00	0.00E+00

#### MASS BALANCE RESULTS

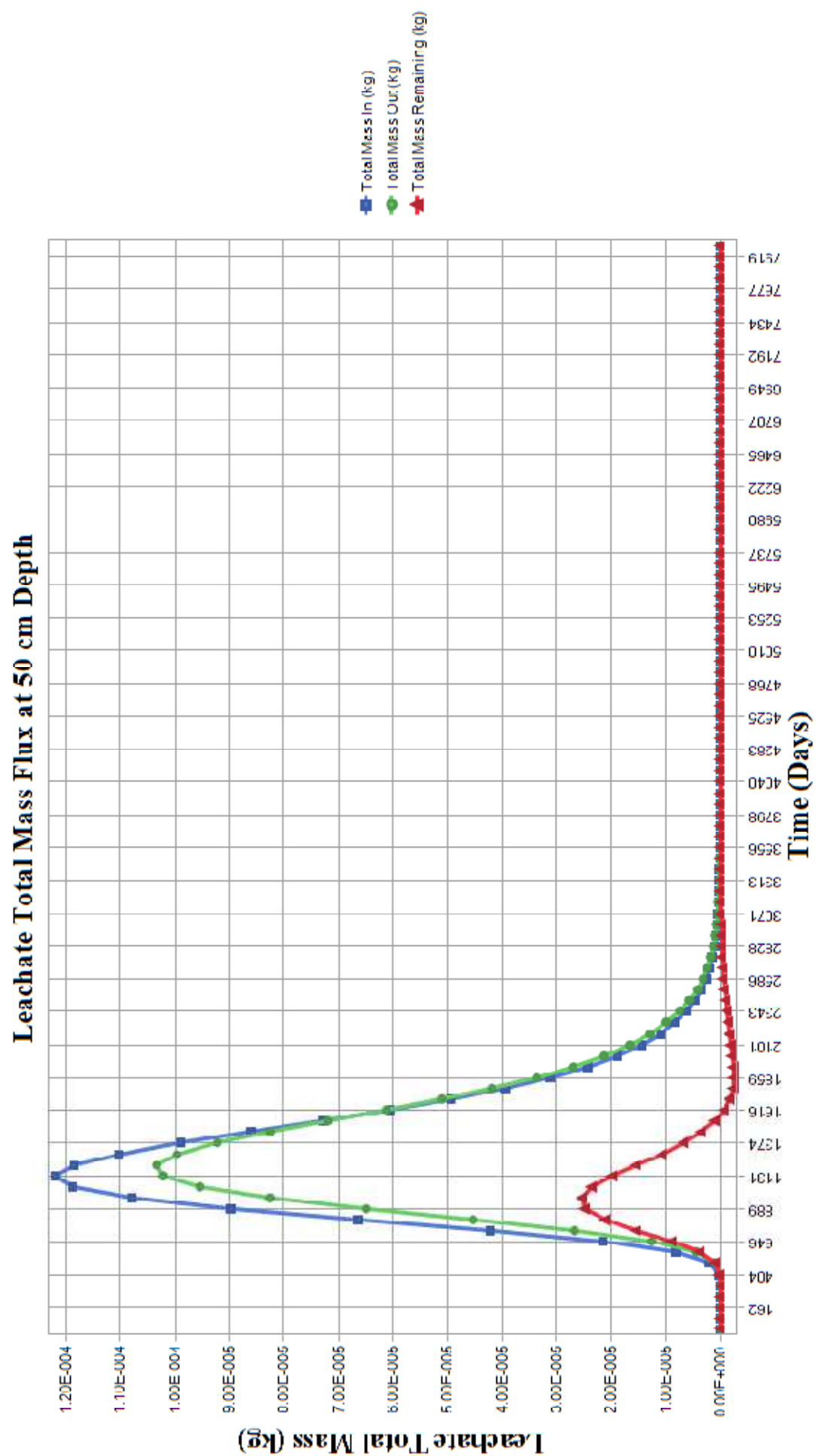
Pollutant remaining in liquid-phase (kg) = 0.731E-02  
 Pollutant remaining in solid-phase (kg) = 0.972E-01  
 Total mass of pollutant remaining (kg) = 0.104E+00  
 Liquid-phase decay of pollutant (kg) = 0.289E+01



Case 3 – Valencia Aldaia – Chlorpyrifos – Waste Application 3 [kg/ha] – Sandy Loam

1.0000000E-30	0.0000000E+00
80.80808	0.0000000E+00
161.6162	0.0000000E+00
242.4243	0.0000000E+00
323.2323	5.0930236E-04
404.0404	1.8275183E-02
484.8485	0.1820192
565.6566	0.8508940
646.4647	2.472067
727.2728	5.222626
808.0808	8.821190
888.8889	12.65652
969.6970	16.06494
1050.505	18.55539
1131.313	19.90025
1212.121	20.11354
1292.929	19.37314
1373.737	17.93485
1454.546	16.06445
1535.354	13.99536
1616.162	11.90895
1696.970	9.931394
1777.778	8.139580
1858.586	6.571199
1939.394	5.235620
2020.202	4.123531
2101.010	3.214679
2181.818	2.483562
2262.626	1.903314
2343.434	1.448152
2424.242	1.094728
2505.051	0.8227431
2585.859	0.6150820
2666.667	0.4576409
2747.475	0.3390226
2828.283	0.2501553
2909.091	0.1839153
2989.899	0.1347665
3070.707	9.8451652E-02
3151.515	7.1720488E-02
3232.323	5.2112292E-02
3313.131	3.7774291E-02
3393.939	2.7320523E-02
3474.748	1.9719357E-02
3555.556	1.4205793E-02
3636.364	1.0215636E-02
3717.172	7.3341755E-03
3797.980	5.2572032E-03
3878.788	3.7630510E-03
3959.596	2.6899145E-03
4040.404	1.9203753E-03
4121.212	1.3693474E-03
4202.021	9.7534247E-04
4282.829	6.9400819E-04
4363.636	4.9332989E-04
4444.444	3.5033654E-04
4525.252	2.4857951E-04
4606.061	1.7622954E-04
4686.869	1.2483803E-04
4767.677	8.8367495E-05
4848.485	6.2517240E-05
4929.293	4.4187476E-05
5010.101	3.1221287E-05
5090.909	2.2042723E-05
5171.717	1.5554797E-05
5252.525	1.0970673E-05
5333.333	7.7314126E-06
5414.142	5.4487332E-06
5494.950	3.8349340E-06
5575.758	2.6975147E-06
5656.566	1.8999957E-06

5737.374	1.3381703E-06
5818.182	9.4097675E-07
5898.990	6.6064490E-07
5979.798	4.6367001E-07
6060.606	3.2516263E-07
6141.414	2.2964062E-07
6222.222	1.6041072E-07
6303.030	1.1353704E-07
6383.838	7.8753054E-08
6464.646	5.5820269E-08
6545.455	3.8850821E-08
6626.263	2.7138443E-08
6707.071	1.9387823E-08
6787.879	1.3637013E-08
6868.687	9.4437258E-09
6949.495	6.8118315E-09
7030.303	8.4521732E-09
7111.111	6.0134262E-09
7191.919	4.0573545E-09
7272.728	2.9175369E-09
7353.536	0.0000000E+00
7434.344	0.0000000E+00
7515.152	0.0000000E+00
7595.960	0.0000000E+00
7676.768	0.0000000E+00
7757.576	0.0000000E+00
7838.384	0.0000000E+00
7919.192	0.0000000E+00
8000.000	0.0000000E+00

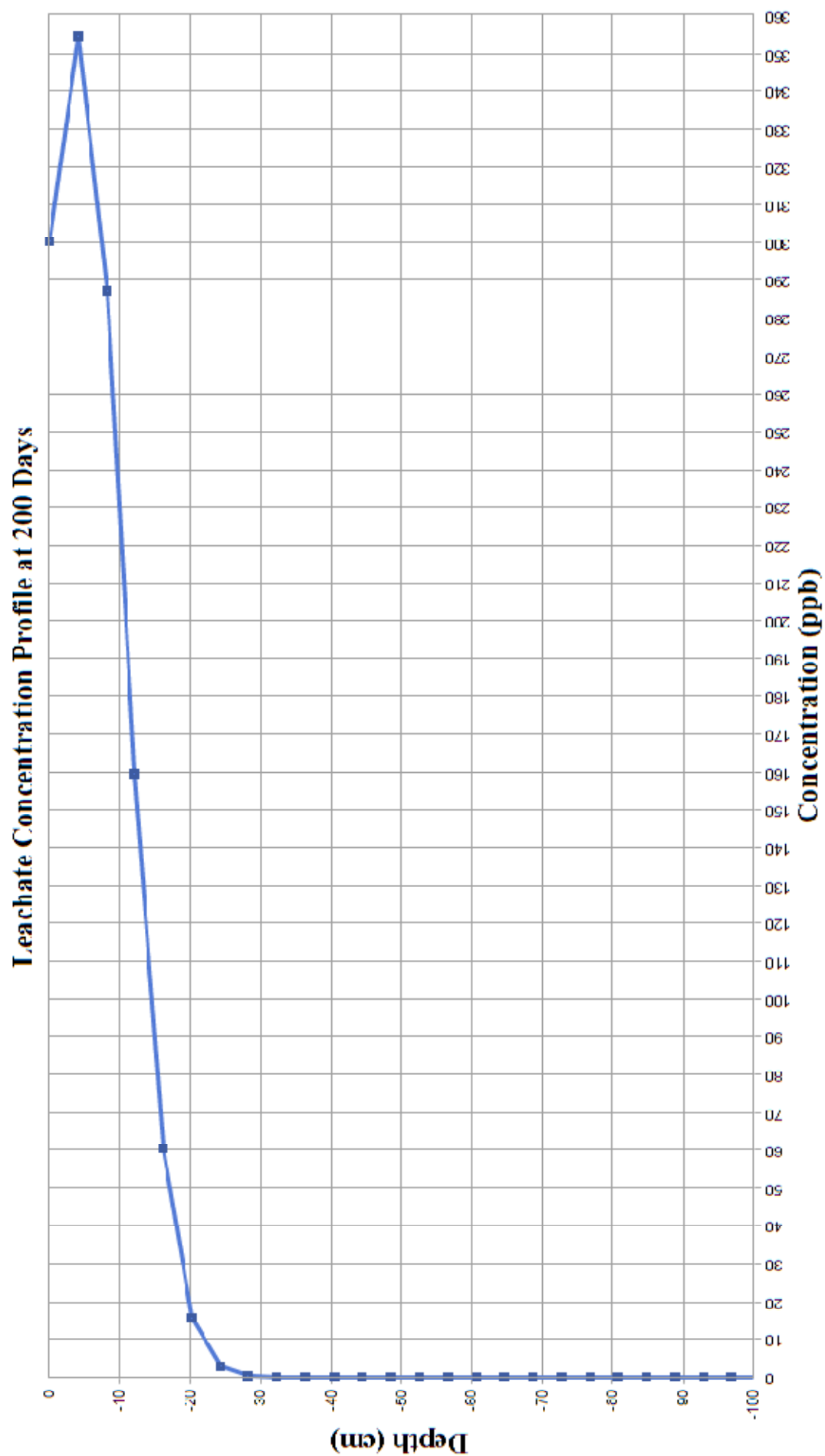


Case 3 – Valencia Aldaia – Chlorpyrifos – Waste Application 3 [kg/ha] – Sandy Loam

1.0000000E-30	0.0000000E+00	0.0000000E+00	0.0000000E+00
80.80808	2.7711186E-33	0.0000000E+00	2.7711186E-33
161.6162	6.4777632E-17	0.0000000E+00	6.4777632E-17
242.4243	1.3272034E-11	0.0000000E+00	1.3272034E-11
323.2323	7.3437310E-09	2.6178142E-09	4.7259165E-09
404.0404	2.2570143E-07	9.3934439E-08	1.3176698E-07
484.8485	1.9580837E-06	9.3557844E-07	1.0225052E-06
565.6566	8.1794778E-06	4.3735949E-06	3.8058827E-06
646.4647	2.1629823E-05	1.2706422E-05	8.9234009E-06
727.2728	4.2174637E-05	2.6844295E-05	1.5330341E-05
808.0808	6.6458342E-05	4.5340919E-05	2.1117421E-05
888.8889	8.9729394E-05	6.5054512E-05	2.4674884E-05
969.6970	1.0792910E-04	8.2573810E-05	2.5355286E-05
1050.505	1.1881794E-04	9.5374722E-05	2.3443215E-05
1131.313	1.2204783E-04	1.0228728E-04	1.9760544E-05
1212.121	1.1863350E-04	1.0338362E-04	1.5249882E-05
1292.929	1.1028033E-04	9.9577941E-05	1.0702389E-05
1373.737	9.8832505E-05	9.2185124E-05	6.6473799E-06
1454.546	8.5926338E-05	8.2571263E-05	3.3550782E-06
1535.354	7.2830953E-05	7.1936149E-05	8.9480432E-07
1616.162	6.0418712E-05	6.1212028E-05	-7.9331505E-07
1696.970	4.9211689E-05	5.1047366E-05	-1.8356784E-06
1777.778	3.9457467E-05	4.1837437E-05	-2.3799712E-06
1858.586	3.1208776E-05	3.3775963E-05	-2.5671861E-06
1939.394	2.4393690E-05	2.6911082E-05	-2.5173922E-06
2020.202	1.8870072E-05	2.1194948E-05	-2.3248760E-06
2101.010	1.4464595E-05	1.6523449E-05	-2.0588541E-06
2181.818	1.0998555E-05	1.2765510E-05	-1.7669554E-06
2262.626	8.3033492E-06	9.7830352E-06	-1.4796860E-06
2343.434	6.2286917E-06	7.4435025E-06	-1.2148107E-06
2424.242	4.6457612E-06	5.6269000E-06	-9.8113890E-07
2505.051	3.4473503E-06	4.2288993E-06	-7.8154898E-07
2585.859	2.5462650E-06	3.1615214E-06	-6.1525640E-07
2666.667	1.8728490E-06	2.3522744E-06	-4.7942535E-07
2747.475	1.3723127E-06	1.7425760E-06	-3.7026336E-07
2828.283	1.0020802E-06	1.2857982E-06	-2.8371801E-07
2909.091	7.2943396E-07	9.4532470E-07	-2.1589076E-07
2989.899	5.2944114E-07	6.9270010E-07	-1.6325896E-07
3070.707	3.8327119E-07	5.0604149E-07	-1.2277032E-07
3151.515	2.7678453E-07	3.6864330E-07	-9.1858780E-08
3232.323	1.9944005E-07	2.6785719E-07	-6.8417137E-08
3313.131	1.4341326E-07	1.9415985E-07	-5.0746589E-08
3393.939	1.0292985E-07	1.4042749E-07	-3.7497646E-08
3474.748	7.3745618E-08	1.0135749E-07	-2.7611874E-08
3555.556	5.2750007E-08	7.3017780E-08	-2.0267773E-08
3636.364	3.7674852E-08	5.2508369E-08	-1.4833518E-08
3717.172	2.6870650E-08	3.7697664E-08	-1.0827014E-08
3797.980	1.9139087E-08	2.7022024E-08	-7.8829379E-09
3878.788	1.3615949E-08	1.9342082E-08	-5.7261325E-09
3959.596	9.6756541E-09	1.3826161E-08	-4.1505066E-09
4040.404	6.8683117E-09	9.8707291E-09	-3.0024174E-09
4121.212	4.8705893E-09	7.0384463E-09	-2.1678570E-09
4202.021	3.4507082E-09	5.0132600E-09	-1.5625519E-09
4282.829	2.4427766E-09	3.5672021E-09	-1.1244256E-09
4363.636	1.7278010E-09	2.5357156E-09	-8.0791462E-10
4444.444	1.2210630E-09	1.8007298E-09	-5.7966670E-10
4525.252	8.6235480E-10	1.2776986E-09	-4.1534381E-10
4606.061	6.0859245E-10	9.0581986E-10	-2.9722741E-10
4686.869	4.2921861E-10	6.4166744E-10	-2.1244882E-10
4767.677	3.0252778E-10	4.5420892E-10	-1.5168114E-10
4848.485	2.1315781E-10	3.2133859E-10	-1.0818078E-10
4929.293	1.5004471E-10	2.2712363E-10	-7.7078913E-11
5010.101	1.0561069E-10	1.6047741E-10	-5.4866726E-11
5090.909	7.4278791E-11	1.1329960E-10	-3.9020807E-11
5171.717	5.2223986E-11	7.9951656E-11	-2.7727671E-11
5252.525	3.6702100E-11	5.6389254E-11	-1.9687155E-11
5333.333	2.5771867E-11	3.9739462E-11	-1.3967595E-11
5414.142	1.8103994E-11	2.8006488E-11	-9.9024929E-12
5494.950	1.2695869E-11	1.9711561E-11	-7.0156914E-12
5575.758	8.8980307E-12	1.3865225E-11	-4.9671942E-12
5656.566	6.2513484E-12	9.7659780E-12	-3.5146293E-12



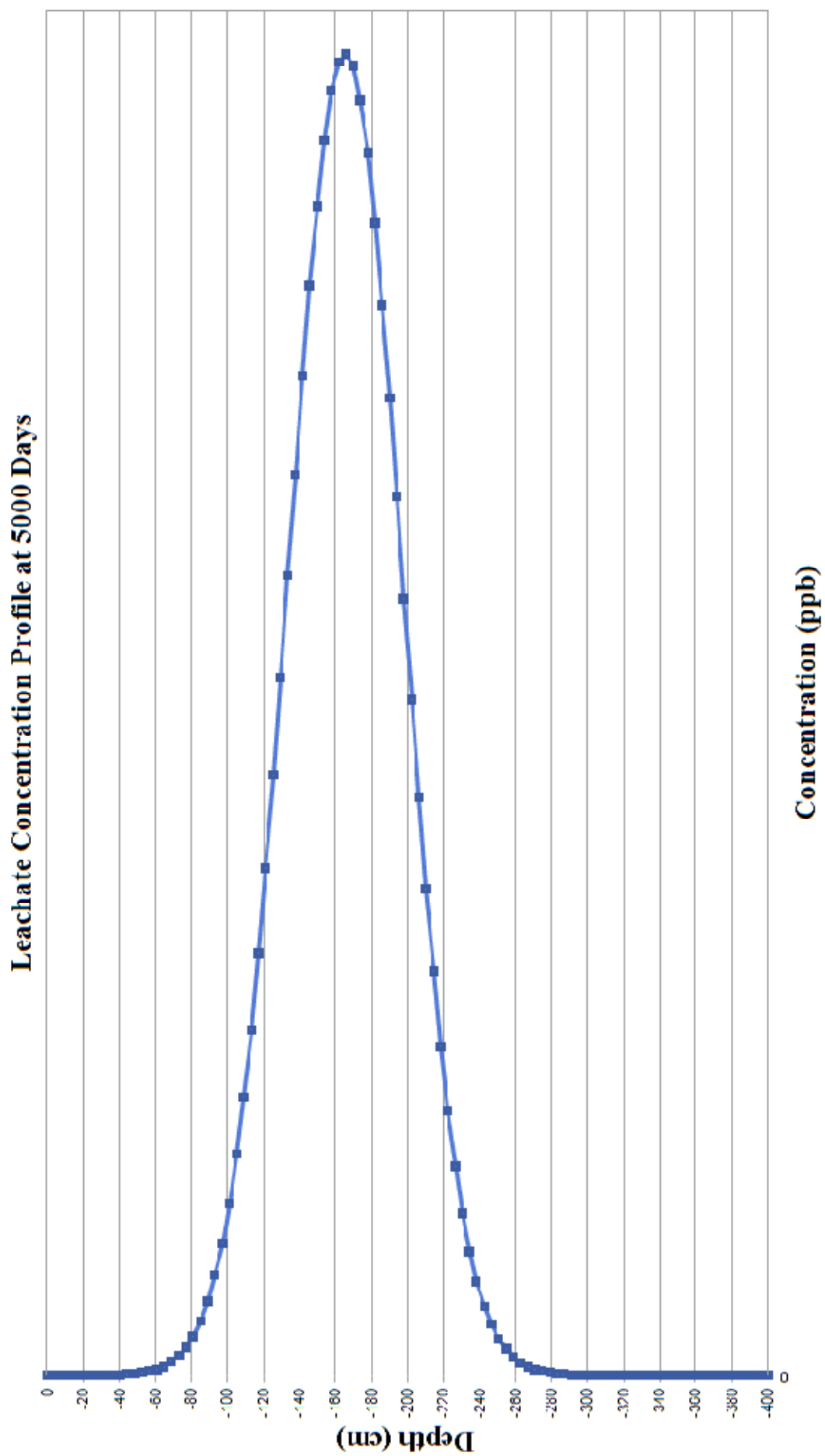
5737.374	4.3928194E-12	6.8781951E-12	-2.4853758E-12
5818.182	3.0800844E-12	4.8366203E-12	-1.7565359E-12
5898.990	2.1549526E-12	3.3957147E-12	-1.2407621E-12
5979.798	1.5072834E-12	2.3832639E-12	-8.7598055E-13
6060.606	1.0531942E-12	1.6713358E-12	-6.1814166E-13
6141.414	7.4436388E-13	1.1803528E-12	-4.3598892E-13
6222.222	5.1713657E-13	8.2451114E-13	-3.0737454E-13
6303.030	3.6697422E-13	5.8358038E-13	-2.1660617E-13
6383.838	2.5221063E-13	4.0479068E-13	-1.5258004E-13
6464.646	1.7948037E-13	2.8691619E-13	-1.0743581E-13
6545.455	1.2407303E-13	1.9969322E-13	-7.5620195E-14
6626.263	8.6284644E-14	1.3949159E-13	-5.3206947E-14
6707.071	6.2229715E-14	9.9653406E-14	-3.7423691E-14
6787.879	4.3780653E-14	7.0094246E-14	-2.6313592E-14
6868.687	3.0044990E-14	4.8540751E-14	-1.8495762E-14
6949.495	2.2016196E-14	3.5012815E-14	-1.2996620E-14
7030.303	3.4314419E-14	4.3444167E-14	-9.1297480E-15
7111.111	2.4497441E-14	3.0909012E-14	-6.4115702E-15
7191.919	1.6353392E-14	2.0854800E-14	-4.5014071E-15
7272.728	1.1836637E-14	1.4996139E-14	-3.1595023E-15
7353.536	-2.2170602E-15	0.0000000E+00	-2.2170602E-15
7434.344	-1.5553537E-15	0.0000000E+00	-1.5553537E-15
7515.152	-1.0908797E-15	0.0000000E+00	-1.0908797E-15
7595.960	-7.6493910E-16	0.0000000E+00	-7.6493910E-16
7676.768	-5.3626561E-16	0.0000000E+00	-5.3626561E-16
7757.576	-3.7587360E-16	0.0000000E+00	-3.7587360E-16
7838.384	-2.6339892E-16	0.0000000E+00	-2.6339892E-16
7919.192	-1.8454410E-16	0.0000000E+00	-1.8454410E-16
8000.000	-1.2927114E-16	0.0000000E+00	-1.2927114E-16



Case 3 – Valencia Aldaia – Chlorpyrifos – Waste Application 3 [kg/ha] – Sandy Loam

300.1639	-1.0000000E-30
354.6157	-4.040404
287.2103	-8.080808
159.3935	-12.12121
60.53486	-16.16162
15.70227	-20.20202
2.775527	-24.24242
0.3335083	-28.28283
2.7558727E-02	-32.32323
1.5210985E-03	-36.36364
0.0000000E+00	-40.40404
0.0000000E+00	-44.44444
0.0000000E+00	-48.48485
0.0000000E+00	-52.52525
0.0000000E+00	-56.56565
0.0000000E+00	-60.60606
0.0000000E+00	-64.64646
0.0000000E+00	-68.68687
0.0000000E+00	-72.72727
0.0000000E+00	-76.76767
0.0000000E+00	-80.80807
0.0000000E+00	-84.84848
0.0000000E+00	-88.88889
0.0000000E+00	-92.92929
0.0000000E+00	-96.96970
0.0000000E+00	-101.0101
0.0000000E+00	-105.0505
0.0000000E+00	-109.0909
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0.0000000E+00	-145.4545
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0.0000000E+00	-157.5757
0.0000000E+00	-161.6161
0.0000000E+00	-165.6566
0.0000000E+00	-169.6970
0.0000000E+00	-173.7374
0.0000000E+00	-177.7778
0.0000000E+00	-181.8182
0.0000000E+00	-185.8586
0.0000000E+00	-189.8990
0.0000000E+00	-193.9394
0.0000000E+00	-197.9798
0.0000000E+00	-202.0202
0.0000000E+00	-206.0606
0.0000000E+00	-210.1010
0.0000000E+00	-214.1414
0.0000000E+00	-218.1818
0.0000000E+00	-222.2222
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0.0000000E+00	-242.4242
0.0000000E+00	-246.4646
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0.0000000E+00	-262.6263
0.0000000E+00	-266.6667
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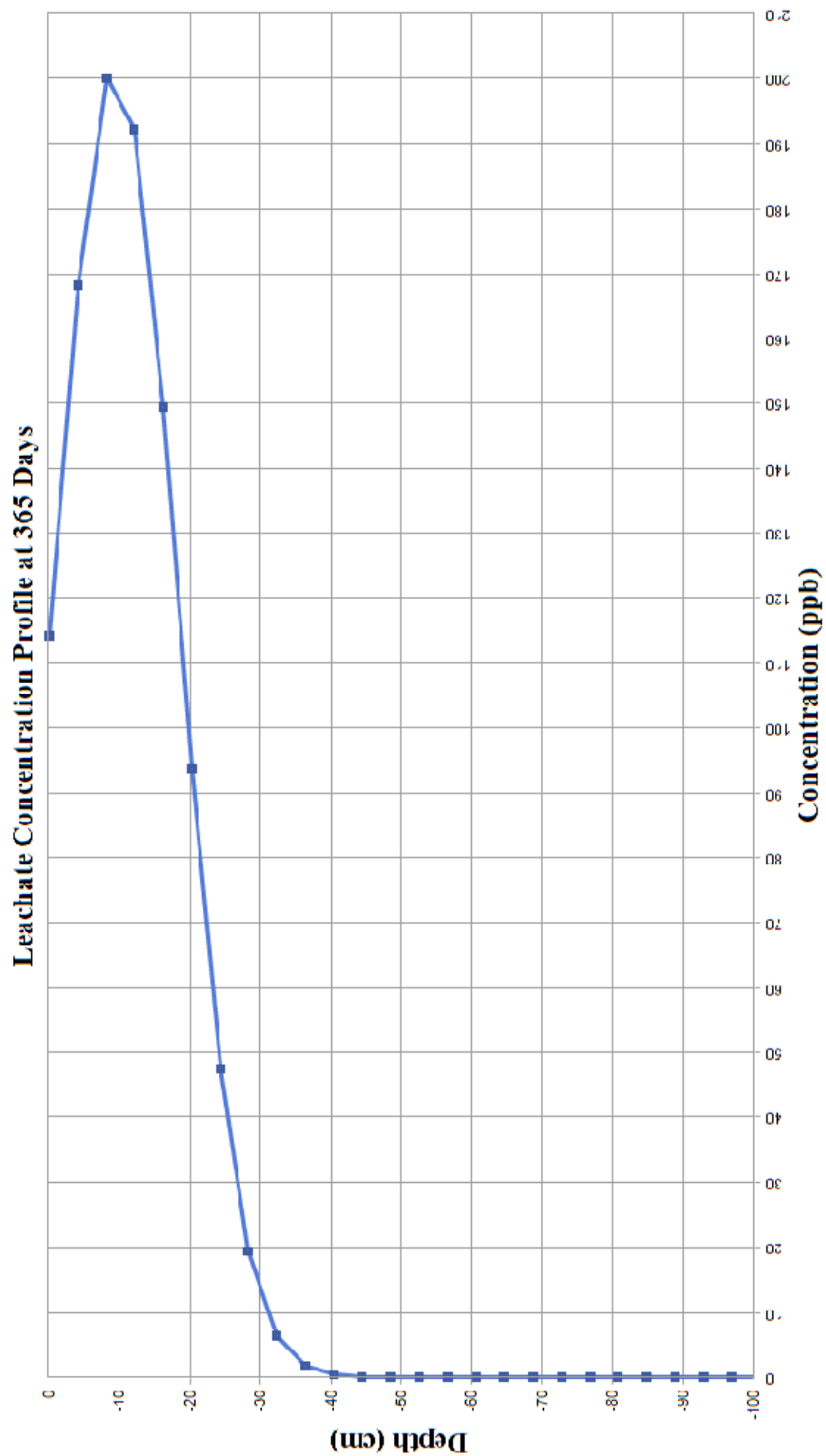
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0.000000E+00	-311.1111
0.000000E+00	-315.1515
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0.000000E+00	-351.5151
0.000000E+00	-355.5555
0.000000E+00	-359.5959
0.000000E+00	-363.6364
0.000000E+00	-367.6768
0.000000E+00	-371.7172
0.000000E+00	-375.7576
0.000000E+00	-379.7980
0.000000E+00	-383.8384
0.000000E+00	-387.8788
0.000000E+00	-391.9192
0.000000E+00	-395.9596
0.000000E+00	-400.0000



Case 3 – Valencia Aldaia – Chlorpyrifos – Waste Application 3 [kg/ha] – Sandy Loam

0.000000E+00	-1.000000E-30
0.000000E+00	-4.040404
1.8907494E-07	-8.080808
2.0798244E-07	-12.12121
3.9705736E-07	-16.16162
6.9957730E-07	-20.20202
1.2478946E-06	-24.24242
2.1743617E-06	-28.28283
3.7247762E-06	-32.32323
6.2772879E-06	-36.36364
1.0427483E-05	-40.40404
1.7035651E-05	-44.44444
2.7396958E-05	-48.48485
4.3354885E-05	-52.52525
6.7490299E-05	-56.56565
1.0339563E-04	-60.60606
1.5584502E-04	-64.64646
2.3114412E-04	-68.68687
3.3731913E-04	-72.72727
4.8440052E-04	-76.76767
6.8444182E-04	-80.80807
9.5159526E-04	-84.84848
1.3018093E-03	-88.88889
1.7523654E-03	-92.92929
2.3210365E-03	-96.96970
3.0249532E-03	-101.0101
3.8791278E-03	-105.0505
4.8947153E-03	-109.0909
6.0771806E-03	-113.1313
7.4243112E-03	-117.1717
8.9246202E-03	-121.2121
1.0556073E-02	-125.2525
1.2285588E-02	-129.2929
1.4069199E-02	-133.3333
1.5853412E-02	-137.3737
1.7577479E-02	-141.4141
1.9176558E-02	-145.4545
2.0585619E-02	-149.4949
2.1743866E-02	-153.5353
2.2599000E-02	-157.5757
2.3111196E-02	-161.6161
2.3256088E-02	-165.6566
2.3026519E-02	-169.6970
2.2433737E-02	-173.7374
2.1505777E-02	-177.7778
2.0285619E-02	-181.8182
1.8827846E-02	-185.8586
1.7194636E-02	-189.8990
1.5451317E-02	-193.9394
1.3662120E-02	-197.9798
1.1886413E-02	-202.0202
1.0175683E-02	-206.0606
8.5714944E-03	-210.1010
7.1044248E-03	-214.1414
5.7940404E-03	-218.1818
4.6495795E-03	-222.2222
3.6713437E-03	-226.2626
2.8524320E-03	-230.3030
2.1806390E-03	-234.3434
1.6403479E-03	-238.3838
1.2141258E-03	-242.4242
8.8424672E-04	-246.4646
6.3367520E-04	-250.5050
4.4683134E-04	-254.5454
3.1002617E-04	-258.5858
2.1165049E-04	-262.6263
1.4218435E-04	-266.6667
9.3979703E-05	-270.7071
6.1118473E-05	-274.7475
3.9119604E-05	-278.7879
2.4636463E-05	-282.8283

1.5267800E-05	-286.8687
9.3024864E-06	-290.9091
5.5871647E-06	-294.9495
3.2899038E-06	-298.9899
1.9191107E-06	-303.0303
1.0966347E-06	-307.0707
6.1449356E-07	-311.1111
3.4033488E-07	-315.1515
1.7962120E-07	-319.1919
1.6071370E-07	-323.2323
0.0000000E+00	-327.2727
0.0000000E+00	-331.3131
0.0000000E+00	-335.3535
0.0000000E+00	-339.3939
0.0000000E+00	-343.4343
0.0000000E+00	-347.4747
0.0000000E+00	-351.5151
0.0000000E+00	-355.5555
0.0000000E+00	-359.5959
0.0000000E+00	-363.6364
0.0000000E+00	-367.6768
0.0000000E+00	-371.7172
0.0000000E+00	-375.7576
0.0000000E+00	-379.7980
0.0000000E+00	-383.8384
0.0000000E+00	-387.8788
0.0000000E+00	-391.9192
0.0000000E+00	-395.9596
0.0000000E+00	-400.0000

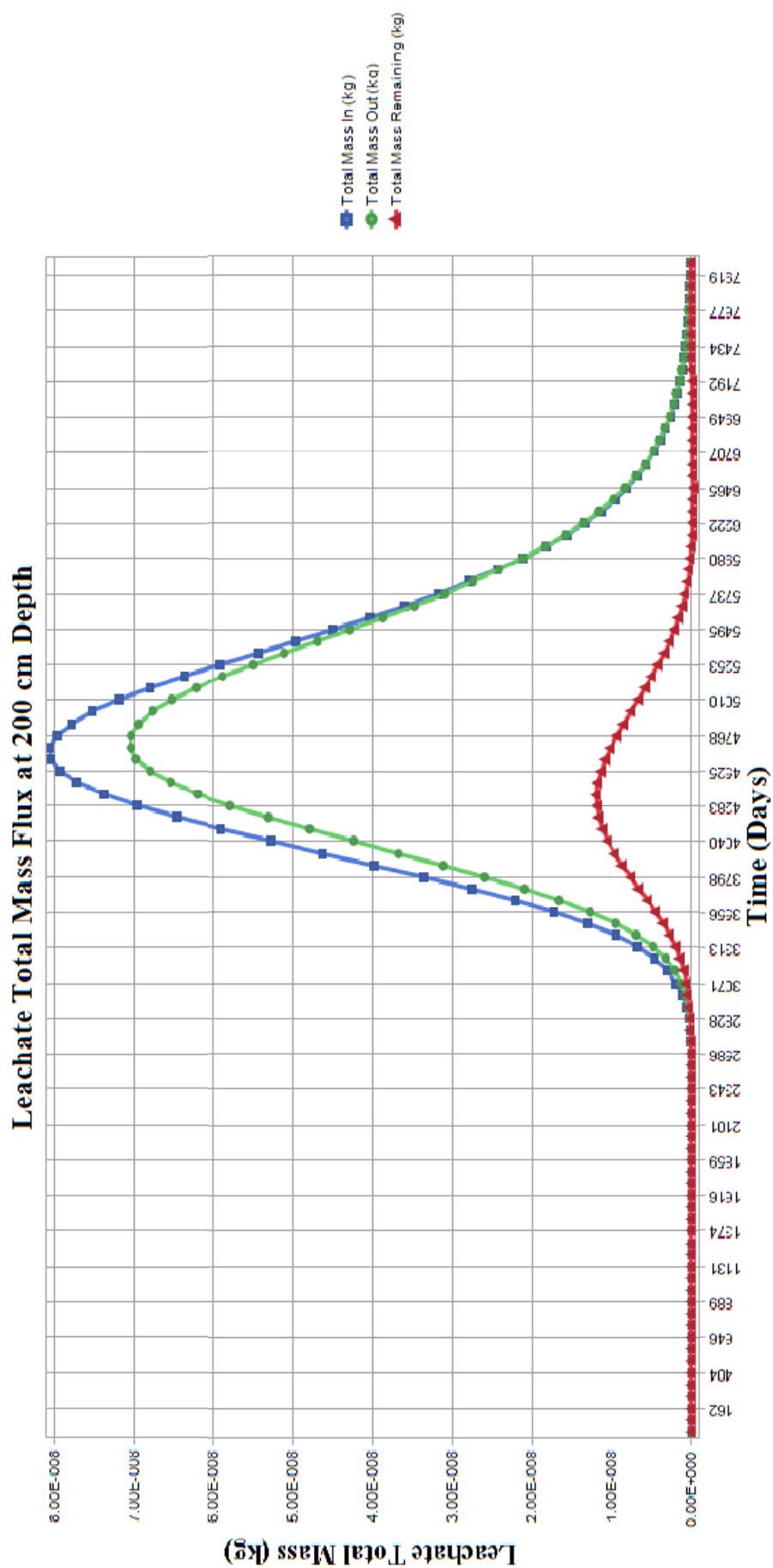


Case 3 – Valencia Aldaia – Chlorpyrifos – Waste Application 3 [kg/ha] – Sandy Loam



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192.3633	-12.12121
149.3326	-16.16162
93.61977	-20.20202
47.38977	-24.24242
19.36397	-28.28283
6.385085	-32.32323
1.698476	-36.36364
0.3643452	-40.40404
6.2992781E-02	-44.44444
8.7728640E-03	-48.48485
1.0174713E-03	-52.52525
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0.0000000E+00	-60.60606
0.0000000E+00	-64.64646
0.0000000E+00	-68.68687
0.0000000E+00	-72.72727
0.0000000E+00	-76.76767
0.0000000E+00	-80.80807
0.0000000E+00	-84.84848
0.0000000E+00	-88.88889
0.0000000E+00	-92.92929
0.0000000E+00	-96.96970
0.0000000E+00	-101.0101
0.0000000E+00	-105.0505
0.0000000E+00	-109.0909
0.0000000E+00	-113.1313
0.0000000E+00	-117.1717
0.0000000E+00	-121.2121
0.0000000E+00	-125.2525
0.0000000E+00	-129.2929
0.0000000E+00	-133.3333
0.0000000E+00	-137.3737
0.0000000E+00	-141.4141
0.0000000E+00	-145.4545
0.0000000E+00	-149.4949
0.0000000E+00	-153.5353
0.0000000E+00	-157.5757
0.0000000E+00	-161.6161
0.0000000E+00	-165.6566
0.0000000E+00	-169.6970
0.0000000E+00	-173.7374
0.0000000E+00	-177.7778
0.0000000E+00	-181.8182
0.0000000E+00	-185.8586
0.0000000E+00	-189.8990
0.0000000E+00	-193.9394
0.0000000E+00	-197.9798
0.0000000E+00	-202.0202
0.0000000E+00	-206.0606
0.0000000E+00	-210.1010
0.0000000E+00	-214.1414
0.0000000E+00	-218.1818
0.0000000E+00	-222.2222
0.0000000E+00	-226.2626
0.0000000E+00	-230.3030
0.0000000E+00	-234.3434
0.0000000E+00	-238.3838
0.0000000E+00	-242.4242
0.0000000E+00	-246.4646
0.0000000E+00	-250.5050
0.0000000E+00	-254.5454
0.0000000E+00	-258.5858
0.0000000E+00	-262.6263
0.0000000E+00	-266.6667
0.0000000E+00	-270.7071
0.0000000E+00	-274.7475
0.0000000E+00	-278.7879
0.0000000E+00	-282.8283

0.000000E+00	-286.8687
0.000000E+00	-290.9091
0.000000E+00	-294.9495
0.000000E+00	-298.9899
0.000000E+00	-303.0303
0.000000E+00	-307.0707
0.000000E+00	-311.1111
0.000000E+00	-315.1515
0.000000E+00	-319.1919
0.000000E+00	-323.2323
0.000000E+00	-327.2727
0.000000E+00	-331.3131
0.000000E+00	-335.3535
0.000000E+00	-339.3939
0.000000E+00	-343.4343
0.000000E+00	-347.4747
0.000000E+00	-351.5151
0.000000E+00	-355.5555
0.000000E+00	-359.5959
0.000000E+00	-363.6364
0.000000E+00	-367.6768
0.000000E+00	-371.7172
0.000000E+00	-375.7576
0.000000E+00	-379.7980
0.000000E+00	-383.8384
0.000000E+00	-387.8788
0.000000E+00	-391.9192
0.000000E+00	-395.9596
0.000000E+00	-400.0000



1.000000E-30	0.000000E+00	0.000000E+00	0.000000E+00
80.80808	0.000000E+00	0.000000E+00	0.000000E+00
161.6162	0.000000E+00	0.000000E+00	0.000000E+00
242.4243	0.000000E+00	0.000000E+00	0.000000E+00
323.2323	0.000000E+00	0.000000E+00	0.000000E+00
404.0404	0.000000E+00	0.000000E+00	0.000000E+00
484.8485	0.000000E+00	0.000000E+00	0.000000E+00
565.6566	0.000000E+00	0.000000E+00	0.000000E+00
646.4647	0.000000E+00	0.000000E+00	0.000000E+00
727.2728	0.000000E+00	0.000000E+00	0.000000E+00
808.0808	2.3822074E-44	0.000000E+00	2.3822074E-44
888.8889	1.1496841E-39	0.000000E+00	1.1496841E-39
969.6970	8.4335392E-36	0.000000E+00	8.4335392E-36
1050.505	1.4808302E-32	0.000000E+00	1.4808302E-32
1131.313	8.4542299E-30	0.000000E+00	8.4542299E-30
1212.121	1.9644638E-27	0.000000E+00	1.9644638E-27
1292.929	2.1985797E-25	0.000000E+00	2.1985797E-25
1373.737	1.3480098E-23	0.000000E+00	1.3480098E-23
1454.546	5.0050713E-22	0.000000E+00	5.0050713E-22
1535.354	1.2179453E-20	0.000000E+00	1.2179453E-20
1616.162	2.0693179E-19	0.000000E+00	2.0693179E-19
1696.970	2.5838080E-18	0.000000E+00	2.5838080E-18
1777.778	2.4724384E-17	0.000000E+00	2.4724384E-17
1858.586	1.8770167E-16	0.000000E+00	1.8770167E-16
1939.394	1.1636383E-15	0.000000E+00	1.1636383E-15
2020.202	6.0354647E-15	0.000000E+00	6.0354647E-15
2101.010	2.6733598E-14	0.000000E+00	2.6733598E-14
2181.818	1.0290725E-13	0.000000E+00	1.0290725E-13
2262.626	3.4944798E-13	0.000000E+00	3.4944798E-13
2343.434	1.0604214E-12	0.000000E+00	1.0604214E-12
2424.242	2.9079920E-12	0.000000E+00	2.9079920E-12
2505.051	7.2770444E-12	0.000000E+00	7.2770444E-12
2585.859	1.6759729E-11	0.000000E+00	1.6759729E-11
2666.667	1.1388444E-10	7.8092942E-11	3.5791502E-11
2747.475	1.9067296E-10	1.1932853E-10	7.1344430E-11
2828.283	3.6981498E-10	2.3629501E-10	1.3351997E-10
2909.091	6.7609063E-10	4.4026546E-10	2.3582516E-10
2989.899	1.1751047E-09	7.8019380E-10	3.9491083E-10
3070.707	1.9400512E-09	1.3104492E-09	6.2960193E-10
3151.515	3.0659495E-09	2.1067741E-09	9.5917541E-10
3232.323	4.6466564E-09	3.2456606E-09	1.4009958E-09
3313.131	6.7790671E-09	4.8112638E-09	1.9678035E-09
3393.939	9.5428891E-09	6.8778485E-09	2.6650402E-09
3474.748	1.2996969E-08	9.5082964E-09	3.4886727E-09
3555.556	1.7161971E-08	1.2738027E-08	4.4239452E-09
3636.364	2.2019023E-08	1.6573772E-08	5.4452509E-09
3717.172	2.7499901E-08	2.0982529E-08	6.5173706E-09
3797.980	3.3491027E-08	2.5893261E-08	7.5977660E-09
3878.788	3.9835538E-08	3.1195693E-08	8.6398453E-09
3959.596	4.6343693E-08	3.6747085E-08	9.5966088E-09
4040.404	5.2803365E-08	4.2378918E-08	1.0424449E-08
4121.212	5.8995958E-08	4.7909523E-08	1.1086436E-08
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4444.444	7.7209570E-08	6.5521995E-08	1.1687577E-08
4525.252	7.9428148E-08	6.8102672E-08	1.1325477E-08
4606.061	8.0580485E-08	6.9788037E-08	1.0792446E-08
4686.869	8.0677239E-08	7.0559501E-08	1.0117741E-08
4767.677	7.9768547E-08	7.0434531E-08	9.3340145E-09
4848.485	7.7937294E-08	6.9462274E-08	8.4750198E-09
4929.293	7.5291823E-08	6.7718133E-08	7.5736892E-09
5010.101	7.1957814E-08	6.5297435E-08	6.6603816E-09
5090.909	6.8070605E-08	6.2308814E-08	5.7617928E-09
5171.717	6.3767999E-08	5.8867872E-08	4.9001261E-09
5252.525	5.9184043E-08	5.5091284E-08	4.0927586E-09
5333.333	5.4443948E-08	5.1091718E-08	3.3522296E-09
5414.142	4.9660478E-08	4.6973945E-08	2.6865330E-09
5494.950	4.4931699E-08	4.2832113E-08	2.0995863E-09
5575.758	4.0339344E-08	3.8747508E-08	1.5918363E-09
5656.566	3.5948815E-08	3.4787881E-08	1.1609351E-09

5737.374	3.1809474E-08	3.1007072E-08	8.0240220E-10
5818.182	2.7955998E-08	2.7445729E-08	5.1026972E-10
5898.990	2.4409690E-08	2.4132055E-08	2.7763625E-10
5979.798	2.1180414E-08	2.1083244E-08	9.7170848E-11
6060.606	1.8268381E-08	1.8306890E-08	-3.8508832E-11
6141.414	1.5666096E-08	1.5802627E-08	-1.3653054E-10
6222.222	1.3360347E-08	1.3563896E-08	-2.0354846E-10
6303.030	1.1333501E-08	1.1579100E-08	-2.4559949E-10
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6464.646	8.0329023E-09	8.3083584E-09	-2.7545624E-10
6545.455	6.7142643E-09	6.9860584E-09	-2.7179425E-10
6626.263	5.5865135E-09	5.8467915E-09	-2.6027788E-10
6707.071	4.6277746E-09	4.8713038E-09	-2.4352920E-10
6787.879	3.8173495E-09	4.0409720E-09	-2.2362226E-10
6868.687	3.1359915E-09	3.3381475E-09	-2.0215615E-10
6949.495	2.5661051E-09	2.7464326E-09	-1.8032756E-10
7030.303	2.0917967E-09	2.2507958E-09	-1.5899912E-10
7111.111	1.6988997E-09	1.8376629E-09	-1.3876326E-10
7191.919	1.3749066E-09	1.4949040E-09	-1.1999733E-10
7272.728	1.1088866E-09	1.2117994E-09	-1.0291278E-10
7353.536	8.9137420E-10	9.7897057E-10	-8.7596402E-11
7434.344	7.1423223E-10	7.8827633E-10	-7.4044118E-11
7515.152	5.7051852E-10	6.3270716E-10	-6.2188650E-11
7595.960	4.5435455E-10	5.0627585E-10	-5.1921314E-11
7676.768	3.6079173E-10	4.0390055E-10	-4.3108836E-11
7757.576	2.8569008E-10	3.2129624E-10	-3.5606160E-11
7838.384	2.2560454E-10	2.5487007E-10	-2.9265534E-11
7919.192	1.7768530E-10	2.0162838E-10	-2.3943082E-11
8000.000	1.3958579E-10	1.5908896E-10	-1.9503175E-11

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                        PESTAN
                      version 4.0, 1992.

Developed by :

Varadhan Ravi and Jeffrey A. Johnson (Dynamac)
Center for Subsurface Modeling Support
Robert S. Kerr Environmental Research Laboratory
U.S. Environmental Protection Agency
P.O. Box 1198
Ada, OK 74820
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Title: Valencia Aldaia

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Solubility (mg/l) .....: 0.14000E+01
Recharge rate (cm/hr).....: 0.51400E-02
Sorption constant (cc/g).....: 0.25560E+01
Saturated water content .....: 0.43500E+00
Solid-phase decay (/hr) .....: 0.63000E-01
Liquid-phase decay (/hr) .....: 0.10000E-02
Curve coefficient .....: 0.49000E+01
Bulk density (g/cc).....: 0.13350E+01
Dispersion coefficient (cm^2/hr).....: 0.60000E-01
Saturated hydraulic conductivity .....: 0.44200E+01
Minimum depth (cm).....: 0.00000E+00
Maximum depth (cm).....: 0.50000E+03
Minimum time (day).....: 0.00000E+00
Maximum time (day).....: 0.80000E+04

```

For application 1 the active ingredient (ai) applied is 0.300E+01 kg  
ai/ha,  
and has been applied 0.000E+00 days prior to recharge

+++++  
Results

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Projected water content .....: 0.257E+00
Pore water velocity [cm/hr] .....: 0.200E-01
Pollutant velocity [cm/hr] .....: 0.140E-02
Length of pollutant slug [cm] .....: 0.584E+01
Mass decayed prior to recharge [kg] .....: 0.000E+00

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Time = 0.50E+02 (days)

Depth [cm]	Cw [mg/l]	Cs [mg/kg]	Ctot [mg/l]
5.000	0.19E+00	0.48E+00	0.69E+00
50.000	0.00E+00	0.00E+00	0.00E+00
100.000	0.00E+00	0.00E+00	0.00E+00
150.000	0.00E+00	0.00E+00	0.00E+00
200.000	0.00E+00	0.00E+00	0.00E+00
250.000	0.00E+00	0.00E+00	0.00E+00
300.000	0.00E+00	0.00E+00	0.00E+00
350.000	0.00E+00	0.00E+00	0.00E+00
400.000	0.00E+00	0.00E+00	0.00E+00
450.000	0.00E+00	0.00E+00	0.00E+00
500.000	0.00E+00	0.00E+00	0.00E+00

MASS BALANCE RESULTS

Pollutant remaining in liquid-phase (kg) = 0.202E+00

Case 3 - Valencia Aldaia - Chlorpyrifos - Waste Application 3 [kg/ha] - Sandy Loam

Pollutant remaining in solid-phase (kg) = 0.269E+01  
 Total mass of pollutant remaining (kg) = 0.289E+01  
 Liquid-phase decay of pollutant (kg) = 0.253E+00

+++++

Time = 0.10E+03 (days)

Depth [cm]	Cw [mg/l]	Cs [mg/kg]	Ctot [mg/l]
5.000	0.37E+00	0.94E+00	0.13E+01
50.000	0.00E+00	0.00E+00	0.00E+00
100.000	0.00E+00	0.00E+00	0.00E+00
150.000	0.00E+00	0.00E+00	0.00E+00
200.000	0.00E+00	0.00E+00	0.00E+00
250.000	0.00E+00	0.00E+00	0.00E+00
300.000	0.00E+00	0.00E+00	0.00E+00
350.000	0.00E+00	0.00E+00	0.00E+00
400.000	0.00E+00	0.00E+00	0.00E+00
450.000	0.00E+00	0.00E+00	0.00E+00
500.000	0.00E+00	0.00E+00	0.00E+00

#### MASS BALANCE RESULTS

Pollutant remaining in liquid-phase (kg) = 0.167E+00  
 Pollutant remaining in solid-phase (kg) = 0.222E+01  
 Total mass of pollutant remaining (kg) = 0.239E+01  
 Liquid-phase decay of pollutant (kg) = 0.436E+00

+++++

Time = 0.15E+03 (days)

Depth [cm]	Cw [mg/l]	Cs [mg/kg]	Ctot [mg/l]
5.000	0.39E+00	0.99E+00	0.14E+01
50.000	0.00E+00	0.00E+00	0.00E+00
100.000	0.00E+00	0.00E+00	0.00E+00
150.000	0.00E+00	0.00E+00	0.00E+00
200.000	0.00E+00	0.00E+00	0.00E+00
250.000	0.00E+00	0.00E+00	0.00E+00
300.000	0.00E+00	0.00E+00	0.00E+00
350.000	0.00E+00	0.00E+00	0.00E+00
400.000	0.00E+00	0.00E+00	0.00E+00
450.000	0.00E+00	0.00E+00	0.00E+00
500.000	0.00E+00	0.00E+00	0.00E+00

#### MASS BALANCE RESULTS

Pollutant remaining in liquid-phase (kg) = 0.151E+00  
 Pollutant remaining in solid-phase (kg) = 0.201E+01  
 Total mass of pollutant remaining (kg) = 0.216E+01  
 Liquid-phase decay of pollutant (kg) = 0.618E+00

+++++

Time = 0.50E+03 (days)

Depth [cm]	Cw [mg/l]	Cs [mg/kg]	Ctot [mg/l]
5.000	0.95E-01	0.24E+00	0.35E+00
50.000	0.25E-03	0.65E-03	0.93E-03
100.000	0.00E+00	0.00E+00	0.00E+00
150.000	0.00E+00	0.00E+00	0.00E+00
200.000	0.00E+00	0.00E+00	0.00E+00
250.000	0.00E+00	0.00E+00	0.00E+00

300.000	0.00E+00	0.00E+00	0.00E+00
350.000	0.00E+00	0.00E+00	0.00E+00
400.000	0.00E+00	0.00E+00	0.00E+00
450.000	0.00E+00	0.00E+00	0.00E+00
500.000	0.00E+00	0.00E+00	0.00E+00

#### MASS BALANCE RESULTS

Pollutant remaining in liquid-phase (kg) = 0.882E-01  
 Pollutant remaining in solid-phase (kg) = 0.117E+01  
 Total mass of pollutant remaining (kg) = 0.126E+01  
 Liquid-phase decay of pollutant (kg) = 0.166E+01

+++++

Time = 0.20E+04 (days)

Depth [cm]	Cw [mg/l]	Cs [mg/kg]	Ctot [mg/l]
5.000	0.74E-04	0.19E-03	0.27E-03
50.000	0.44E-02	0.11E-01	0.16E-01
100.000	0.12E-02	0.30E-02	0.43E-02
150.000	0.67E-06	0.17E-05	0.24E-05
200.000	0.00E+00	0.00E+00	0.00E+00
250.000	0.00E+00	0.00E+00	0.00E+00
300.000	0.00E+00	0.00E+00	0.00E+00
350.000	0.00E+00	0.00E+00	0.00E+00
400.000	0.00E+00	0.00E+00	0.00E+00
450.000	0.00E+00	0.00E+00	0.00E+00
500.000	0.00E+00	0.00E+00	0.00E+00

#### MASS BALANCE RESULTS

Pollutant remaining in liquid-phase (kg) = 0.731E-02  
 Pollutant remaining in solid-phase (kg) = 0.972E-01  
 Total mass of pollutant remaining (kg) = 0.104E+00  
 Liquid-phase decay of pollutant (kg) = 0.289E+01