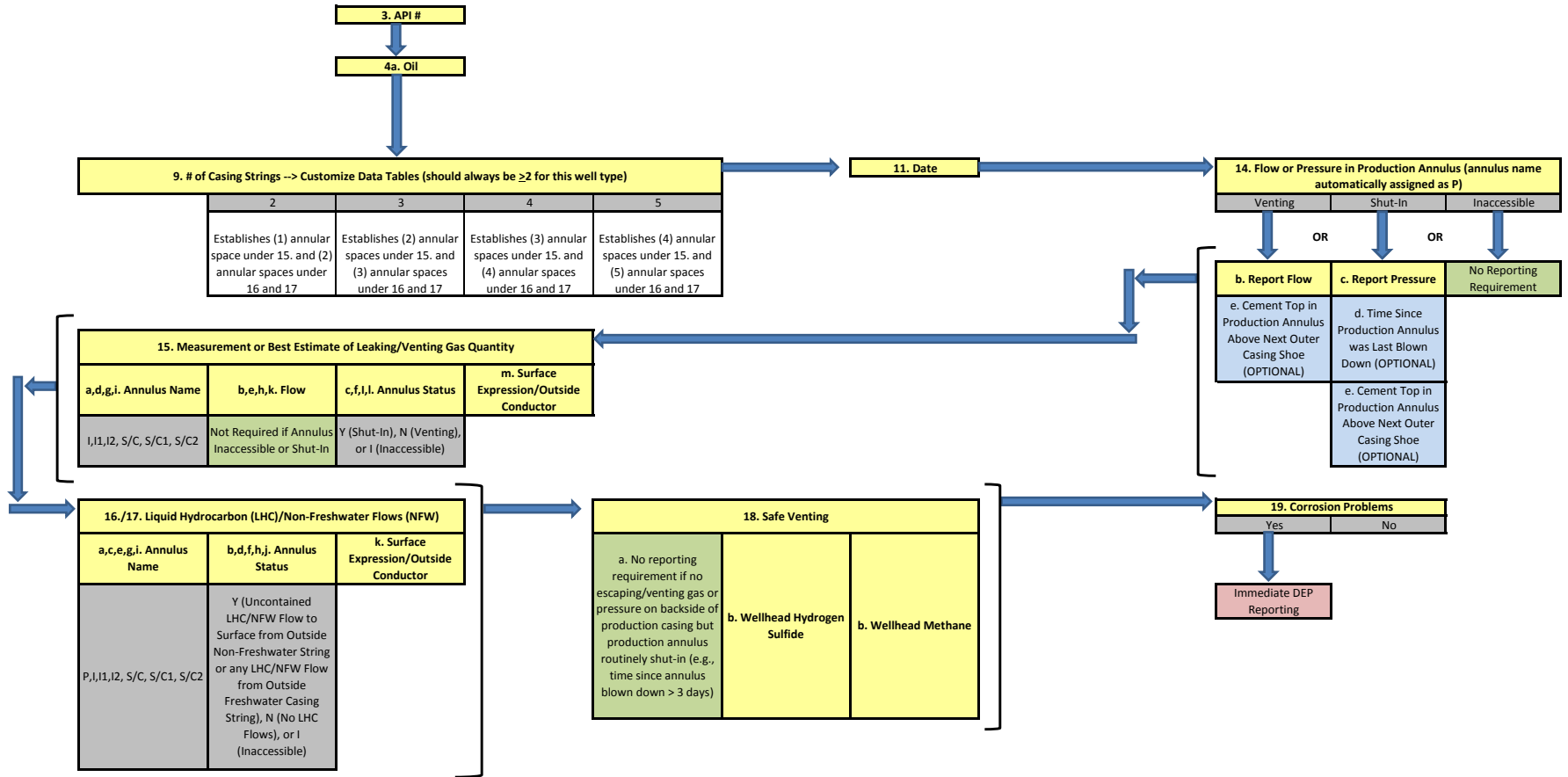
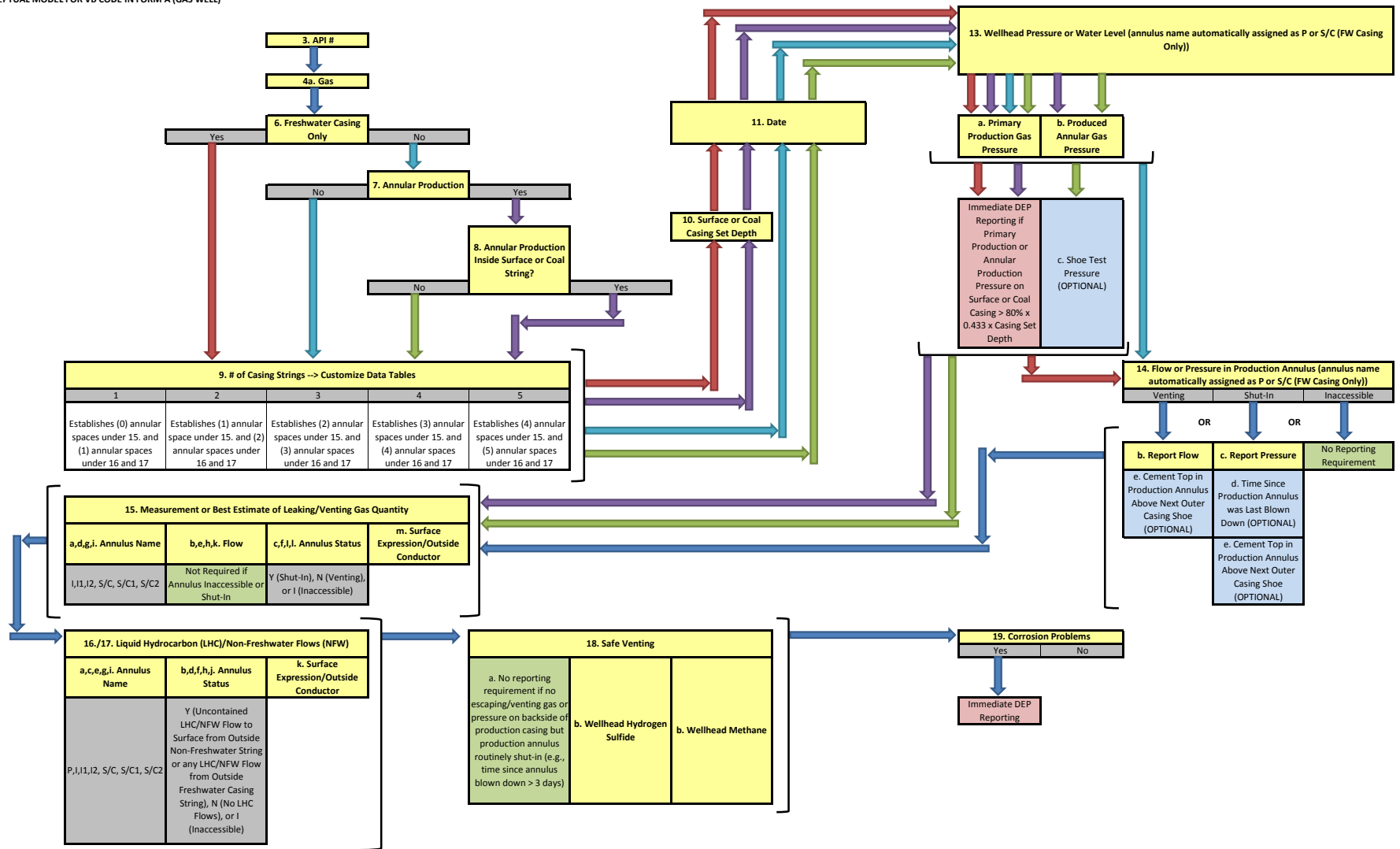


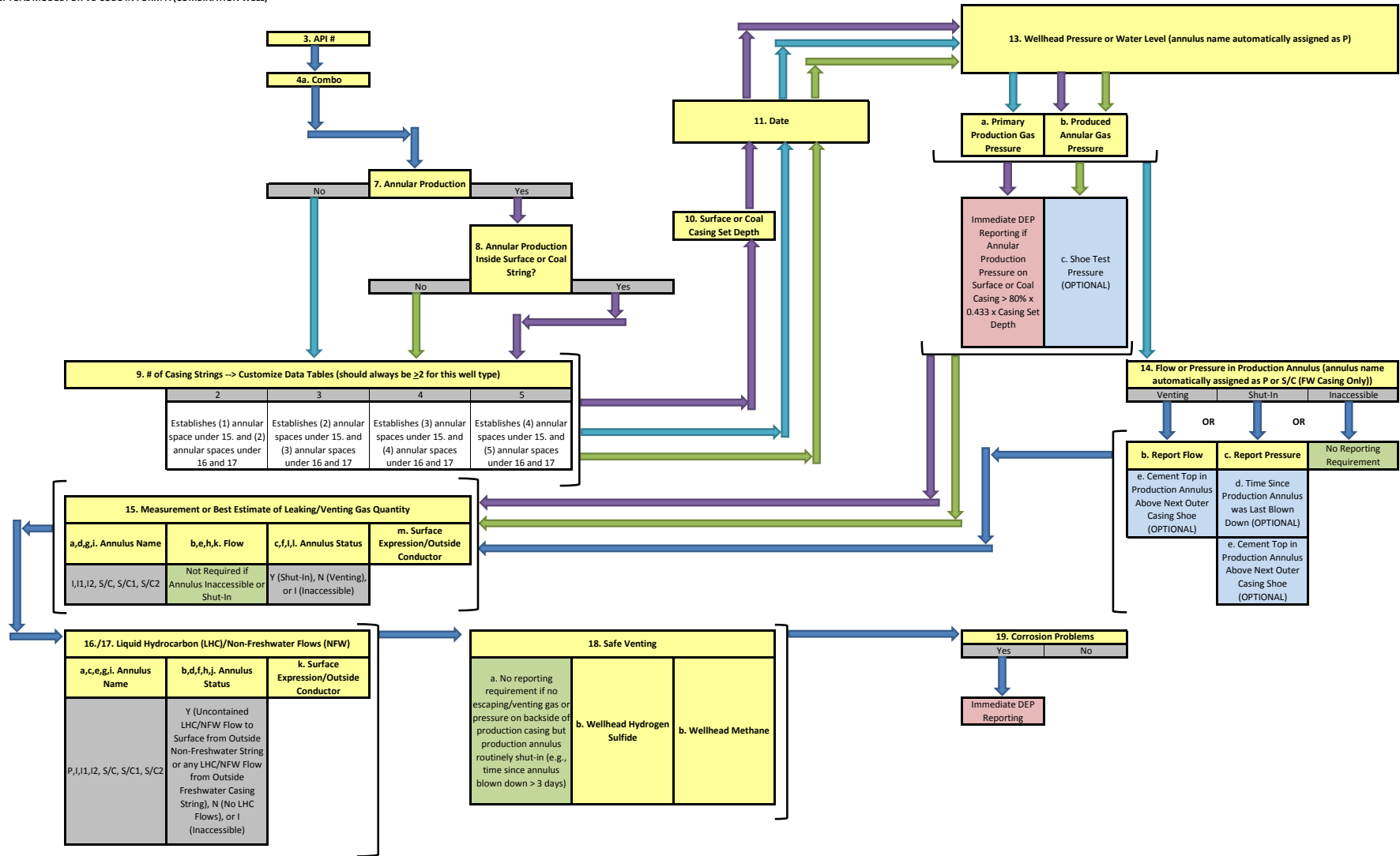
CONCEPTUAL MODEL FOR VB CODE IN FORM A (OIL WELL)



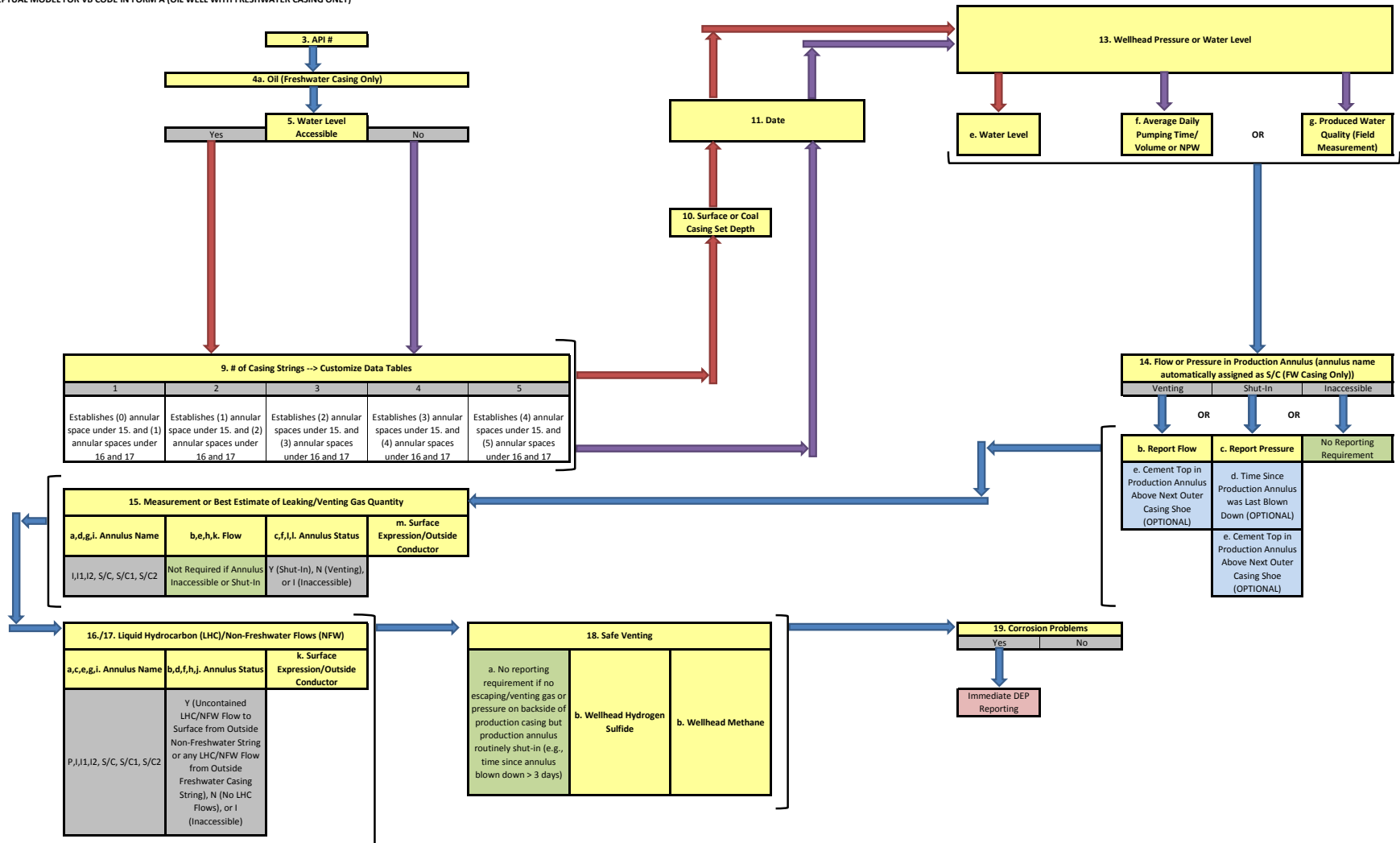
CONCEPTUAL MODEL FOR VB CODE IN FORM A (GAS WELL)



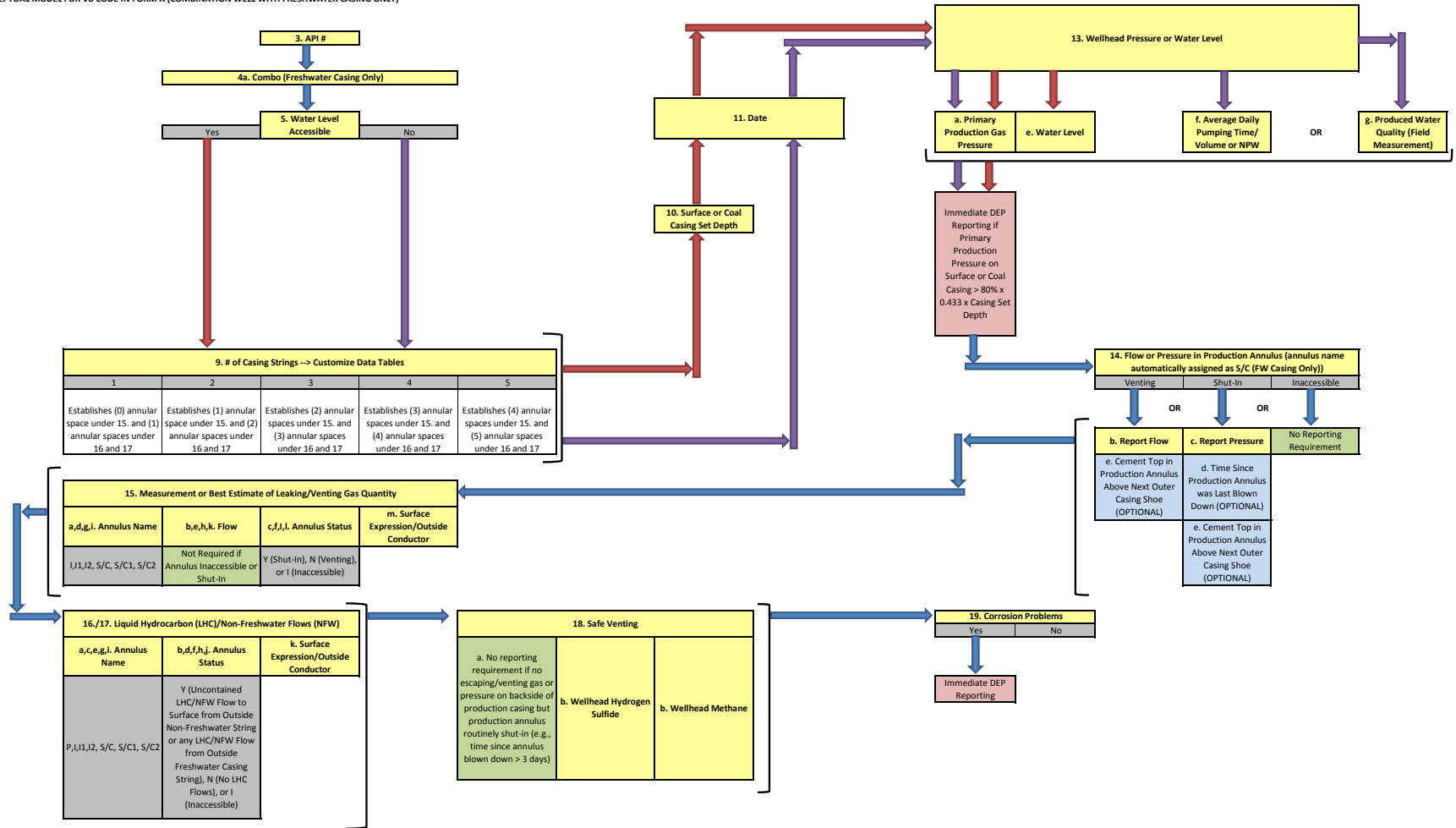
CONCEPTUAL MODEL FOR VB CODE IN FORM A (COMBINATION WELL)



CONCEPTUAL MODEL FOR VB CODE IN FORM A (OIL WELL WITH FRESHWATER CASING ONLY)



CONCEPTUAL MODEL FOR VB CODE IN FORM A (COMBINATION WELL WITH FRESHWATER CASING ONLY)



9. # of Casing Strings --> Customize Data Tables

1	2	3	4	5
Establishes (0) annular space under 15. and (1) annular spaces under 16 and 17	Establishes (1) annular space under 15. and (2) annular spaces under 16 and 17	Establishes (2) annular spaces under 15. and (3) annular spaces under 16 and 17	Establishes (3) annular spaces under 15. and (4) annular spaces under 16 and 17	Establishes (4) annular spaces under 15. and (5) annular spaces under 16 and 17

15. Measurement or Best Estimate of Leaking/Venting Gas Quantity

a,d,g,i. Annulus Name	b,e,h,k. Flow	c,f,j,l. Annulus Status	m. Surface Expression/Outside Conductor
I,1,12, S/C, S/C1, S/C2	Not Required if Annulus Inaccessible or Shut-In	Y (Shut-in), N (Venting), or I (Inaccessible)	

16./17. Liquid Hydrocarbon (LHC)/Non-Freshwater Flows (NFW)

a,c,e,g,i. Annulus Name	b,d,f,h,j. Annulus Status	k. Surface Expression/Outside Conductor
P,1,11,12, S/C, S/C1, S/C2	Y (Uncontained LHC/NFW Flow to Surface from Outside Non-Freshwater String or any LHC/NFW Flow from Outside Freshwater Casing String), N (No LHC Flows), or I (Inaccessible)	

18. Safe Venting

a. No reporting requirement if no escaping/venting gas or pressure on backside of production casing but production annulus routinely shut-in (e.g., time since annulus blown down > 3 days)	b. Wellhead Hydrogen Sulfide	b. Wellhead Methane
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13. Wellhead Pressure or Water Level

a. Primary Production Gas Pressure	e. Water Level	f. Average Daily Pumping Time/Volume or NPW	OR	g. Produced Water Quality (Field Measurement)
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Immediate DEP Reporting if Primary Production Pressure on Surface or Coal Casing > 80% x 0.433 x Casing Set Depth

14. Flow or Pressure in Production Annulus (annulus name automatically assigned as S/C (FW Casing Only))

Venting	Shut-In	Inaccessible
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b. Report Flow

e. Cement Top in Production Annulus Above Next Outer Casing Shoe (OPTIONAL)

c. Report Pressure

d. Time Since Production Annulus was Last Blown Down (OPTIONAL)

e. Cement Top in Production Annulus Above Next Outer Casing Shoe (OPTIONAL)

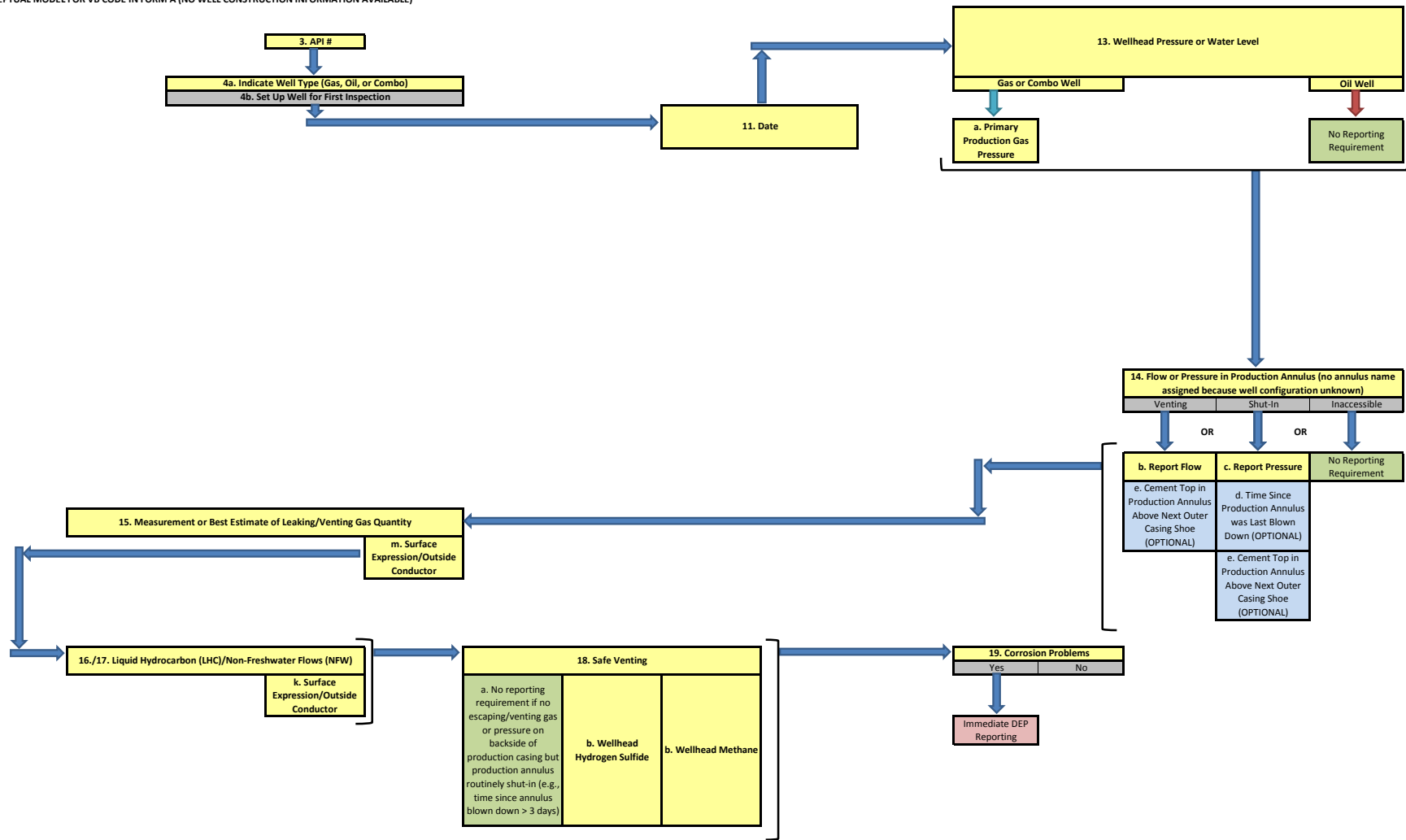
No Reporting Requirement

19. Corrosion Problems

Yes	No
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Immediate DEP Reporting

CONCEPTUAL MODEL FOR VB CODE IN FORM A (NO WELL CONSTRUCTION INFORMATION AVAILABLE)



Items on DEP Summary Report: Note that only SOME of these items are required for each well - necessary items are determined based on the well type and construction characteristics as depicted in process flow diagrams

DEP Field Label:	Well_Own_Oper	API_Num	Well_Type	WL_Acc	FW_Cas_Only	Ann_Prod	Ann_Prod_In_FW_Cas	#_Cas_Stgs	Surf_Cas_Set_Depth	Insp_Date	Prim_Prod_Gas_Press	Ann_Gas_Press
Parameter Definition and Criteria [input (acceptable range, if applicable); data format, unit]:	Well Owner/Operator [name; text]	Abridged API # [9-character code with 3-digit county code and unique 5-digit county ID separated by a dash; general]	Well Type [Oil,Gas, Combo; text]	Water Level Accessible [Y,N,NA; text]	Well Equipped with Freshwater Casing Only [Y,N,NA; text]	Annular Production [Y,N,NA; text]	Annular Production inside Freshwater Casing [Y,N,NA; text]	Number of Casing Strings Well is Equipped With [1,2,3,4,5,NA; general]	Surface Casing Set Depth [integer (100 to 2,000),NA; general, feet]	Date of Quarterly Inspection [date; mm/dd/yy]	Shut-in or Flowing Pressure Inside Production String [integer (0 to 10,000), NA; general, pounds per square inch gauge]	Shut-in or Flowing Pressure Associated with Annular Production String [integer (0 to 10,000), NA; general, pounds per square inch gauge]

general formats have no specific numeric format and are used for fields that may receive text or numerical data

Report submissions to DEP must be delimited in a manner that will enable data to be imported into Excel

Shoe_Test_Press	Produced_Ann	WL	Avg_Pump_Time_Vol	Prod_WQ	Prod_Ann_Status	P_Flow	P_Pressure	Blow_Down_Time	TOC_Above	Production_Ann	P_LHC_Flow
FIT or LOT results [integer (0 to 10,000), NA; general, pounds per square inch gauge]	Name of Annulus that is Being Produced [P,NA; text]	Water Level inside Production Casing [integer (0 to 5,000),NA; general, feet]	Average Daily Pumping Time or Volume [2-decimal number, NPW,NA; general, hours or barrels]	Specific Conductance of Produced Water [integer (0 to 999,999),NA; general, micro-Siemens or micro-mhos/cm]	Status of Production Annulus [SI,V,I; text]	Gas Flow in Production Annulus [integer (0 to 2,000,000),NA; general, standard cubic feet per day]	Shut-in Pressure in Production Annulus [integer (0 to 10,000),NA; general, pounds per square inch gauge]	Time Since Production Annulus was Last Blown Down [2-decimal number (0 to 1,000,000),NA; general, days]	Cement Top in Production Annulus above Next Outer Casing String [Y,N,NA; text]	Name of Non-Produced Production Annulus [P,S/C,NA; text]	Uncontained LHC Flow from Production Annulus [Y,N,I,NA; text]

SI = Shut-in
V = Venting
I = Inaccessible

LHC = liquid hydrocarbon flow

P_NFW_Flow	I_G_Flow	I_Ann_Status	I_LHC_Flow	I_NFW_Flow	I1_G_Flow	I1_Ann_Status	I1_LHC_Flow	I1_NFW_Flow	I2_G_Flow	I2_Ann_Status	I2_LHC_Flow
Uncontained NFW Flow from Production Annulus [Y,N,I,NA; text]	Gas Flow in Intermediate Annulus [integer (0 to 2,000,000),NA; general, standard cubic feet per day]	Status of Intermediate Annulus [SI,V,I; text]	Uncontained LHC Flow from Intermediate Annulus [Y,N,I,NA; text]	Uncontained NFW Flow from Intermediate Annulus [Y,N,I,NA; text]	Gas Flow in Second Intermediate (I1) Annulus [integer (0 to 2,000,000),NA; general, standard cubic feet per day]	Status of Second Intermediate (I1) Annulus [SI,V,I; text]	Uncontained LHC Flow from Second Intermediate (I1) Annulus [Y,N,I,NA; text]	Uncontained NFW Flow from Second Intermediate (I1) Annulus [Y,N,I,NA; text]	Gas Flow in Third Intermediate (I2) Annulus [integer (0 to 2,000,000),NA; general, standard cubic feet per day]	Status of Third Intermediate (I2) Annulus [SI,V,I; text]	Uncontained LHC Flow from Third Intermediate (I2) Annulus [Y,N,I,NA; text]

NFW = non-freshwater

I2_NFW_Flow	S_C_G_Flow	S_C_Ann_Status	S_C_LHC_Flow	S_C_NFW_Flow	S_C_1_G_Flow	S_C_1_Ann_Status	S_C_1_LHC_Flow	S_C_1_NFW_Flow	S_C_2_G_Flow	S_C_2_Ann_Status
Uncontained NFW Flow from Third Intermediate (I2) Annulus [Y,N,I,NA; text]	Gas Flow in Surface/Coal Annulus [integer (0 to 2,000,000),NA; general, standard cubic feet per day]	Status of Surface/Coal Annulus [S,I,V,I; text]	Any LHC Flow from Surface/Coal Annulus [Y,N,I; text]	Any NFW Flow from Surface/Coal Annulus [Y,N,I; text]	Gas Flow in Second Surface/Coal (S/C1) Annulus [integer (0 to 2,000,000),NA; general, standard cubic feet per day]	Status of Second Surface/Coal (S/C1) Annulus [S,I,V,I; text]	Any LHC Flow from Second Surface/Coal (S/C1) Annulus [Y,N,I,NA; text]	Any NFW Flow from Second Surface/Coal (S/C1) Annulus [Y,N,I,NA; text]	Gas Flow in Third Surface/Coal (S/C2) Annulus [integer (0 to 2,000,000),NA; general, standard cubic feet per day]	Status of Third Surface/Coal (S/C2) Annulus [S,I,V,I; text]

S_C_2_LHC_Flow	S_C_2_NFW_Flow	Surf_Leak_G	Surf_Leak_LHC	Surf_Leak_NFW	H2S	CH4	Corr_Prob	Comments	Notification	Cas_Seat_Press
Any LHC Flow from Third Surface/Coal (S/C2) Annulus [Y,N,I,NA; text]	Any NFW Flow from Third Surface/Coal (S/C2) Annulus [Y,N,I,NA; text]	Any Leaking/Escaping Gas From Surface Wellhead Equipment or Outside Conductor Pipe [Y,N; general]	Any Leaking LHC From Surface Wellhead Equipment or Outside Conductor Pipe [Y,N; general]	Any Leaking NFW From Surface Wellhead Equipment or Outside Conductor Pipe [Y,N; general]	Wellhead Hydrogen Sulfide Detected [integer (0 to 1,000),NA; general , parts per million]	Wellhead Methane Reported as a Percentage of the Lower Explosive Limit (LEL) [percentage with no decimals (0 to 100%),NA; general , %]	Corrosion Problems [Y,N; text]	Comments [character string (limit 255 characters including spaces); text]	DEP Notification Required per 78.88 [Y,N; text]	Casing Seat Pressure for Wells Producing Gas Inside of Surface or Coal Casing [integer (0 to 10,000),NA; general , pounds per square inch gauge]